Université catholique de Louvain
Institute of Health and Society – Institut de recherche Santé et Société (IRSS)

Clos Chapelle-aux-Champs B1.30.15, 1200 Woluwé-Saint-Lambert, Belgique
Tél. : + 32 (0) 2 764 32 61 - fax : + 32 (0) 10 47 20 89
E-mail : marie.dauvrin@uclouvain.be
www.uclouvain.be/irss
www.uclouvain.be/marie.dauvrin

Culturally competence has been recommended as a strategy to reduce health inequalities among migrants but, so far, the effects on health care remain sparse. Cultural competence neglects the roles played by the institutional and political levels on the attitudes of health professionals.
This thesis aims at challenging the health inequities experienced by migrants in involving the health professionals and the institutions at the meso and the macro levels. We investigated three main research questions. To what extent do culturally competent interventions contribute to the reduction of health inequalities and to the improvement of quality of care? How cultural competence is implemented and diffused in the health services in Belgium? We conducted the COMETH study, a quantitative empirical study with a social network analysis design. What are the best practices and political recommendations for improving equity in health for migrants beyond cultural competence?
Firstly, when the intervention aims at reducing health inequalities, universal interventions are more adapted, while improving quality of care requires specific interventions. Secondly, the sense of responsibility of health professionals towards cultural competence is influenced by the context surrounding the health services. Thirdly, cultural competence spreads in health services through effects of leadership, particularly the role-modelling, rather than through interpersonal relationships. Fourthly, there is a low level of commitment towards cultural competence among health professionals. The responsibility to adapt is put on the individuals or patients rather than on the institutions and the policymakers. Finally, the concept of cultural competence is discussed in the Belgian health system.

Marie Dauvrin is a research fellow of the Fonds de la Recherche Scientifique-FNRS of Belgium. She holds a bachelor degree in nursing and a specialist degree in community health (ISEI, Brussels) and a Master's in Public Health (UCLouvain).

fnrs
LA LIBERTÉ DE CHERCHER

2013

Marie Dauvrin

Cultural Competence in Health Care

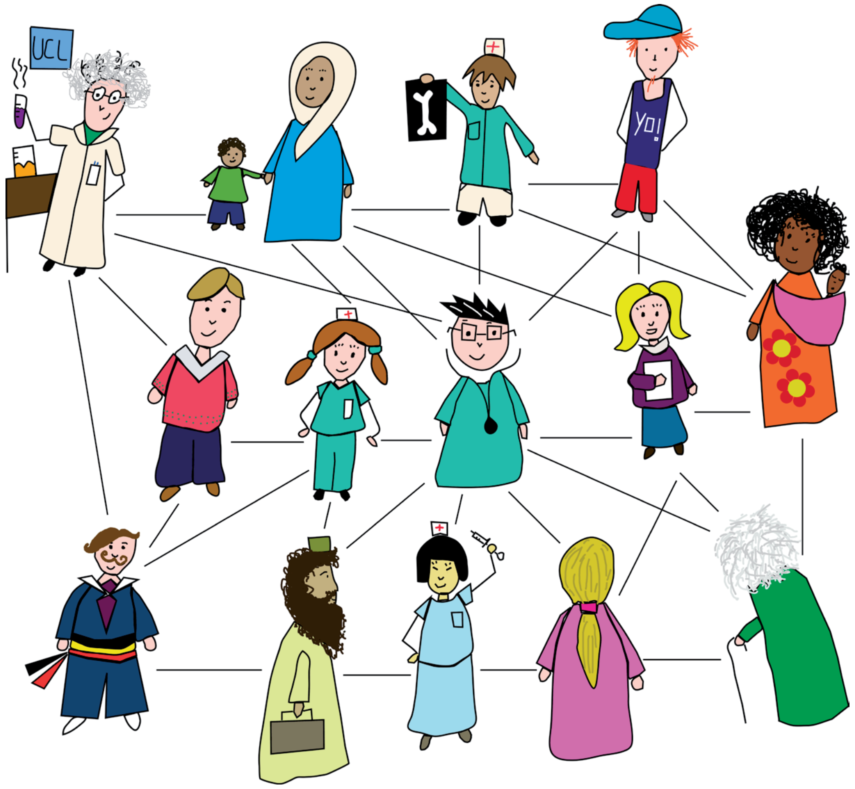
UCL

Université catholique de Louvain
Institute of Health and Society

Cultural Competence in Health Care

Challenging Inequalities, Involving Institutions

MARIE DAUVRIN



Thèse présentée en vue de l'obtention du grade
de docteur en Sciences de la Santé Publique

OCTOBRE 2013

Marie Dauvrin

Cultural Competence in Health Care

Challenging Inequalities, Involving Institutions

Thesis submitted for the degree of "Docteur en Sciences de la Santé Publique"

Promoter

Vincent Lorant (IRSS-UCL)

Jury

Mylène Botbol-Baum (ISP-UCL)
Alain Deccache (IRSS-UCL)
Walter Devillé (NIVEL-University of Amsterdam)
William D'Hoore (IRSS – UCL)
Raymond Reding (IREC– UCL)
Hans Verrept (FPS Health, Food Chain Safety and Environment)

UCL
Université catholique de Louvain

Institute of Health and Society
2013

Marie Dauvrin

Cultural Competence in Health Care: Challenging Inequalities, Involving Institutions

Institute of Health and Society – Institut de recherché Santé et Société (IRSS)
Université catholique de Louvain
B1.30.15 Clos Chapelle-aux-Champs
B-1200 Woluwé-Saint-Lambert
Belgium
Tel : + 32 (0)2 764 32 61
Email : marie.dauvrin@uclouvain.be
http://www.uclouvain.be/irss
http://www.uclouvain.be/marie.dauvrin

Thèse présentée en vue de l'obtention du diplôme de Docteur en Sciences de la Santé Publique

Promoter
Pr. Vincent Lorant

Jury

Pr. Mylène Botbol-Baum (ISP-UCL)
Pr. Alain Deccache (IRSS-UCL)
Pr. Walter Devillé (NIVEL-University of Amsterdam)
Pr. William D'Hoore (IRSS – UCL)
Pr. Raymond Reding (IREC– UCL)
Sr. Hans Verrept (FPS Health, Food Chain Safety and Environment)

Front Cover by Elisabeth Dauvrin©

ACKNOWLEDGEMENTS

Acknowledgements

When I was a teenager, I went to an exhibition called *Invitation à un voyage pas comme les autres*. During one afternoon, I put myself in the steps of an asylum seeker, applying for help in Belgium. I spent time in jail, I crossed a desert, I was forced to walk like a duck in front of policemen, I begged for food, I passed an exam with a civil servant from the Office des Etrangers. A few years later, when I was at the nursing school, I went on internship in an asylum centre. And I realized that, for some of us, applying for asylum is not a game. Since this event, my professional experience as a community health nurse provided me many occasions of caring for vulnerable patients, such as irregular migrants or ethnic minorities. But, my journey looked like a nice touristic trip: seeing people, stocking memories, discovering pathways. It began a real expedition when I went to discuss the topic of my master thesis with William D'Hoore. I was hesitating between two directions and he told me "You should go to the office of professor Lorant". I went, and my journey really became *un voyage pas comme les autres*.

I am very grateful to my promoter Vincent Lorant who guided me through this *voyage pas comme les autres*. I really appreciated his guidance, his support and his innovative ways of finding funding and resources. He bravely accepted and constantly supported the fact that my journey was sinuous and sometimes hazardous, with ups and downs. He provided me many occasions of presenting my work abroad which were both stressful and fruitful experiences. And, last but not least, I would like to thank him for believing in me when I did not believe in myself.

I would like to thank William D'Hoore, chairman of my steering committee, for indicating the right direction to follow when I was lost. I thank the other members of my steering committee, Mylène Botbol-Baum, Alain Deccache and Hans Verrept for their relevant remarks and their enthusiasm in my thesis. I owe acknowledgments to the two external members of my jury: Raymond Reding and Walter Devillé for spending valuable time in commenting my work.

I thank the members of the ETHEALTH group, especially Ilse Derluyn (heel bedankt voor alle aanmoeidingen), Hans Verrept and Isabelle Coune (spending time with both of you in Milano was really wonderful). I also thank the EUGATE team, with special acknowledgements to the Four Fantastic also known as Marija Bogic, Ulrike Kluge, Sima Sandhu and Natasja Koitzsch Jensen, and to Walter Devillé, Andrea Gaddini and Stefan Priebe. I owe a very special thank you to David Ingleby. I went to my very first COST meeting when I could only say "hello" and "thank you" in English. David was so friendly that I almost forgot how much I was stressed. I thank him for supporting my candidature as research fellow and providing me advices and opportunities to share my work with the COST HOME network and the COST ADAPT network.

This research project would not have been possible without the financial support of the Fonds de la Recherche Scientifique-FNRS of Belgium. I also thank all health professionals in the hospitals and the primary care services who joined the COMETH project. I thank Rebecca Jones and Martin McGarry for reviewing my manuscripts and teaching me that each missing "s" costs me one Euro of proofreading fees. Thanks to Alain Guillet and Catherine Rasse, I almost tamed the software SAS during the most difficult part of my journey.

It was also *un voyage pas comme les autres* because I was very lucky to meet people *pas comme les autres* wherever I go. I had the privilege of having a "mama de thesis", who helped me to focus on the essential ("Marie, would someone die if you cannot finish your regression today?"), to improve my Spanish with the south-American touch and to keep my head cool even when my journey seems to have reached a non-return point. Muchas gracias Vicky! Thank you to the two Muses who inspired me this journey: Micheline G and Geneviève "Flash" S. Thank you to the 5th floor Dream-Team of the noon lunch break for all your advices and your *IFDI* attitudes, whatever the conditions. Thanks to all the Cycl'IRSS for joining our humanitarian journey and biking around Louvain-la-Neuve under hazardous circumstances (with a special one to "Tetris" JC and "Mulot-cake" Séverine). Thank you to the MHEDI group for sharing a past, a present and, most importantly, a future. Thank you to all CORSCIens from the IRSS, but also from the Secteur des Sciences de la Santé and the Université catholique de Louvain: after all our discussions, I think we re-built our future and our university at least one-thousand times. Thank you to the PRISCI team for welcoming me with so much enthusiasm. And a special thank for the most patient persons in the building: our wonderful administrative staff. I also thank every person who was not afraid of asking "how is your thesis going"…even when she or he knew that the journey was not going well.

If I succeed in this *voyage pas comme les autres*, it is because I had and still have a strong undercover support staff composed by friends and family. In this undercover staff, I wish to highlight Sarah "the fairy godmother", Sophie, Jacques, Dan, Alice and Elisabeth. But the most important persons are my mum and my dad. My mum told me that "our children will always go where we, as parents, will never go" and I thank her for giving me the support and the love to do so. My dad told me that Amundsen walked 28 miles every day, even in the worst weather conditions, reached the North Pole and came back safe and well. I thank him for giving me the strength and the love to keep going on my journey. Thank you for believing in me and for being here.

Now this is not the end.
It is not even the beginning of the end.
But it is, perhaps, the end of the beginning.
Winston Churchill

TABLE OF CONTENTS

Table of Contents

INTRODUCTION

INTRODUCTION

Despite growing investments in health care and health services in developed countries, health inequities between and within population groups persist. Health inequities have been defined as "*differences in opportunity for different population groups which result in, for example, unequal life chances, access to health services, nutritious food, adequate housing*" [1] (Retrieved from Whitehead & Dahlgren, 1991). There are three defining characteristics of health inequities, which, taken in combination, distinguish them from variations in health status. Firstly, inequities are systematic: they show a consistent pattern across the population, e.g. the systematic difference in mortality between socioeconomic groups. Secondly, inequities are socially determined: they have their roots in societal processes. There are no biological determinants of health inequities. Lastly, health inequities are considered to be unfair, because they are generated and maintained by societies [2].

Within this context, ethnicity and migration have been acknowledged to be two important social determinants of health status that should be considered in policies aimed at tackling health inequalities and health inequities [3,4]. Cultural competence has been widely recommended as a strategy for targeting health inequities. However, the issue of cultural competence in health care has, to date, been poorly addressed in Belgium. The main aim of this thesis is to gain an insight into cultural competence within health care institutions, including health services, as a potential strategy for challenging ethnic inequalities.

The first section of this introduction aims to define what is meant by "migrants and ethnic minorities" and to provide an overview of the situation of migrants and ethnic minorities in Belgium. The second section describes the health status and health determinants of these groups. The third section defines and analyses cultural competence. The main research questions and hypotheses of the thesis are then presented, and the introduction ends by outlining the structure of the thesis.

1. MIGRANTS AND ETHNIC MINORITIES

There is still no consensus on the definition of “ethnicity” in the health sciences. Consequently, defining “ethnicity”, “race”, or “migrant” constitutes a real challenge when talking about health inequalities and inequities among migrants and ethnic minorities. Broadly speaking, “migrants” include first, second, and third generation migrants, undocumented migrants, asylum seekers, refugees, ethnic minorities, cultural minorities, returned nationals, and religious minorities [5]. The length of stay in the host country is often used to categorise migrants as either first, second, third, or fourth generation. First generation migrants were born outside their host countries, while second generation migrants were born in the host country and have at least one parent that was born outside the host country. Third generation migrants were born in the host country and often have the nationality of the host country. Their parents were usually born in the host country, but their grandparents were born outside the host country. In some areas, where there is a long-standing history of migration, fourth generation migrants have been reported.

In this context, the definitions and operationalisations of “race”, “migration”, and “ethnicity” will determine the categories of inequalities and thus influence both the measurement of these inequalities and the actions taken to tackle inequalities. Several authors have reported that “race” and “ethnicity” are poorly defined and operationalised in public health [6,7], biomedical science [8-10], nursing [11-13], epidemiological [14], and genetic research [15]. To avoid misunderstandings, this section aims to clarify the meanings of the different basic concepts used throughout this thesis. Some background information on the situation of these groups in Belgium is also provided.

1.1. Migration and migrants

Human migration is most simply defined as the displacement of the place of residence of individuals. Migration is as old as humanity and is a fundamental characteristic of the human race. It will always influence structures and dynamics at a global level, influencing economies and international relations, but also the health of populations in sending and receiving countries [16,17]. Moreover, the direction and magnitude of migration flows will continue to evolve over time, which means that migration is likely to affect each and every one of us [18].

Official data from the United Nations estimates numbers of international migrants (defined as individuals having left their country to reside in another for at least one year, including both voluntary and forced migration) between 2001 and 2010 to be between 185 and 192 billion [17]. Despite restrictions on migration, these numbers saw a 2% increase each year. Internal migration – people moving within the same country – is also on the rise, but this is defined instead as the displacement of populations. Migration traditionally occurs from less economically developed countries to more developed countries, such as the United States, Canada, or the countries of the European Union. Important migration flows also exist within continents, between neighbouring countries e.g. Zimbabwe to South Africa in Africa or from Mongolia to Japan in Asia [17].

The strategic position of Belgium in Europe and its migrant history have shaped the diversity of the Belgian population [19]. The resident foreign population represented 10.2% of the entire population of Belgium in 2011 [20]. Moreover, 12.1% of Belgian residents were born abroad [20]. The distribution of migrants is unequal between the three Belgian regions: people without Belgian nationality make up nearly half of the population (46%) in Brussels, 10% in Wallonia, and 7.3% in Flanders [21].

Nowadays, the mobility of European Union citizens is the main source of legal migration in Belgium. The proportion of migrants from other EU countries represents 67% of migrants. This proportion is twice as high as in any of the other 26 EU countries. Moreover, there are higher numbers of EU migrants from adjacent countries in the areas of Belgium bordering these countries. Besides Europeans, Moroccans, Turks, and Congolese (from the Democratic Republic of the Congo) are the three main foreign nationalities in Belgium[1]. Growing numbers of people from Asia, mostly from China and India, have also been reported [21].

Why do people migrate? Gierveld et al. (2007) uses the “push and pull factors” model to explain migration. This model assumes that migration is the result of the combination of negative and repulsive factors in the country of origin (“push factors”) and positive and attractive factors in the host country (“pull factors”) [22]. This combination determines the magnitude and direction of migration flows [23].

Push factors include socioeconomic, climatic, and political problems in the country of origin. These are all factors determining the trajectories of refugees, asylum seekers, unaccompanied minors, and irregular migrants. A refugee is a person who "owing to a well-founded fear of being persecuted for reasons of race, religion, nationality, membership of a particular social group, or political opinion, is outside the country of his/her nationality, and is unable to or, owing to such fear, is unwilling to avail himself/herself of the protection of that country…"(Article 1, the 1951 Convention Relating to the Status of Refugees [24]). An asylum-seeker is someone who claims to be a refugee, but whose claim has not yet been definitively evaluated [25]. Unaccompanied minors are children under the age of 18 who are not from a European Economic Space member country, and who are not being cared for by parents or legal caregivers [26].

---

[1] Among the Europeans, the three main groups are Italians, French, and Dutch.

***Background**: Refugees and asylum seekers in Belgium*

Many people seek asylum in Belgium for political, economic, medical,[2] or climatic reasons. In 2012, there were 21,463 claims, but only 3038 persons received official refugee status, while 1381 persons received subsidiary protection[3]. Despite a decrease of 30% between 2005 and 2006, the number of asylum seekers is currently increasing in Belgium and in the rest of Europe. In 2012, asylum seekers came mostly from Afghanistan, the Republic of Guinea, and Russia, while in 2009, they came mostly from Armenia, Russia, and Kosovo. In 2012, unaccompanied minors came mostly from Afghanistan, the Republic of Guinea, and the Democratic Republic of the Congo[4].

Irregular migrants (also referred to as undocumented migrants, illegal migrants, or unregistered migrants) are those without a residence permit authorising them to legally stay in their destination country. They may have been unsuccessful in seeking asylum, have overstayed their visa, or entered the country illegally [27,28].

***Background**: Irregular migrants in Belgium*

In Belgium, an important proportion of rejected asylum seekers appear to become irregular migrants. It is difficult to quantify how many people are irregular migrants precisely because of their irregular status. Moreover, this group is highly heterogeneous in terms of countries of origin, migration trajectory, and socioeconomic profile, as well as health care needs. The most recent data on irregular migrants came from the regularisation campaign of 2000. According to this data, around 32,000 claims, representing around 50,000 persons and 140 different nationalities, were made. The two main countries of origin were the Democratic Republic of the Congo and Morocco.

Pull factors are situations in the host country that are perceived to be attractive, such as better employment and income opportunities, improved education, reuniting with other family members, and acceptance of socio-cultural differences such as homosexuality.

---

[2] Under the conditions reported in Article 9 *ter*, § 1, of the law dated 15 December 1980 sur l’accès au territoire, le séjour, l’établissement et l’éloignement des étrangers.

[3] Data provided by the Immigration Office, website https://dofi.ibz.be/sites/dvzoe/FR/Statistiques/Pages/default.aspx

[4] Countries are cited in order of importance.

Labour migrants are individuals who apply for remunerated activities in a different country. They include several categories of people: (a) persons who are outside the territory of the State of which they are nationals or citizens, are not subject to its legal protection and who are in the territory of another State; (b) persons who do not enjoy the general legal rights granted by the host State to refugees, permanent residents, naturalised persons, or those of similar status; and (c) persons who do not enjoy the general legal protection of their fundamental rights by virtue of diplomatic agreements, visas, or other agreements (Adapted from the United Nations directive E/CN.4/2000/82 [29]).

***Background**: Labour migrants in Belgium*

In Belgium, the main labour migration flows began in the early twentieth century. At this time, foreigners constituted about 3% of the total population of Belgium and 90% of these came from bordering countries. Between the two World Wars, this proportion rose to 4%, mainly due to migration flows from Italy and Eastern Europe. Belgium's migration policy in the 1930s restricted migrants to working for at least 3 years in the same economic area. This constraint has shaped the distribution of migrant populations in Belgium. During the 1960s, the extension of migration permits to all industrial sectors and services led to increased numbers of foreign workers coming in the Belgium's main cities. These were mainly Italians (Coal Accords[5]), Spanish, and Greek immigrants at first, followed by Moroccans and Turks. These workers were later joined by their families. Nowadays, the health sector is particularly concerned with labour migration. Some health institutions have developed migration-based recruitment policies in order to combat the lack of active health professionals, especially nurses. Migrant health professionals mainly come from adjacent countries such as France or Netherlands and from traditional immigration countries such as Italy and Morocco [30]. More recently, Poland, Romania, the Philippines, and the Lebanon have been identified as the four main countries of origin for foreign nurses [31]. Although data remains sparse, it appears that the provision of health care for the elderly has become an economic niche occupied by Congolese nurses in urban areas such as Brussels.

Besides labour migrants, students constitute a separate category. Three situations co-exist: the migration of students in a strict sense (foreign students beginning a

---

[5] Coal Accords are based on the establishment of a common market for steel and coal in the fifties. Italian miners came to work in Belgian mines.

complete curriculum abroad); student mobility (short-term education projects such as the Erasmus program), and "improvement" migration (students involved in a third cycle of education, such as PhD students). In 2012, most foreigners requesting student visas came from Cameroun[6].

Family reunification is a powerful motive for migration. The European Council Directive 2003/86/EC dated 22 September 2003 on the right to family reunification states that only " *third-country nationals who hold a residence permit valid for at least one year in one of the Member States and who have the genuine option of long-term residence can apply for family reunification*"[32]. It does not apply to European Union citizens or third-country nationals awaiting refugee status or who are under temporary forms of protection. Family reunification first concerns the person's spouse and under-age children or the under-age children of a family member where the applicant has custody and the children are dependent on this person, including adopted children. However, when it comes to other family members, such as first-degree parent, unmarried adult children, or unmarried partners, each member state retains state sovereignty in determining the rules concerning reunification.

***Background**: Family reunification in Belgium*

Since 1974, family reunification has become the most widespread form of legal immigration in Belgium [33]. Foreigners recognised as resident in Belgium have the right to bring spouses and under-age children and, under certain conditions, other family members, to live with them. This issue is of major importance, since growing numbers of young migrants marry people from their country of origin. This rule also applies to Belgians or Europeans who are married to non-European citizens or parents of children that are non-EU citizens. Family reunification also concerns elderly relatives of resident migrants [33] but to a far lesser degree. Among migrants applying for family reunification, less than 2% were elders of 59 years and over. However, although official data is sparse, a new form of family reunification has recently appeared in Belgium: elderly family members migrating to join their families following the death of their spouse.

---

[6] Data from the Immigration Office, https://dofi.ibz.be/sites/dvzoe/FR/Statistiques/Pages/default.aspx

1.2. Ethnicity and ethnic minorities

Ethnicity is usually approached through two distinct perspectives: it can be seen as a characteristic of an individual (similarly to gender or educational level), or as a difference between two groups when making a comparison. When the term "ethnicity" is used in the context of health inequalities and inequities, the focus is on ethnicity as a difference between two groups rather than on ethnicity as a characteristic of an individual.

Hanquinet et al. (2006) defined ethnicity as *"a social group characterised by a distinctive social and cultural tradition, maintained within the group from generation to generation, a common history and origin, and a sense of identification with the group. Members of the group have distinctive features in their way of life, shared experiences and often a common genetic heritage. These features may be reflected in their health and disease experience*" [34].

Ethnicity has six main characteristics:

- A commonly used proper name that identifies and expresses the "essence" of the community;
- A myth of common ancestry that includes the idea of a common origin in time and place and that gives an ethnic group a sense of kinship;
- Shared historical memories, or better, shared memories of a common past or pasts, including heroes, events, and their commemoration;
- One or more elements of a common culture, which need not be specified but normally include religion, customs, and language;
- A link to a homeland, not necessarily physically occupied by the ethnic group, but with symbolic attachment as the ancestral land, as with diaspora peoples; and
- A sense of solidarity on the part of at least some sections of the ethnic group [35].

Associated with these six features is the unstable dimension of ethnicity. Ethnicity is used by individuals in the construction of their social identity and in the formation of groups of appurtenance, which both vary across time and place. For example, a Belgian citizen is more likely to define himself as Walloon or Flemish when in Belgium but the same person will be more likely to define himself as Belgian when travelling abroad. After World War II, being Jewish had different connotations than it had in the 1930s. Ethnic identity is reinforced by surrounding norms and the positive or negative externalities associated with this appurtenance. Ethnic identity thus acquires value and social reality.

There are many different, extremely heterogeneous ethnic groups. These include newly-arrived migrants and groups that have been living in the country for hundreds of years (e.g. Native American Indians). But the key point is that ethnicity sets a particular group apart in numerical and often in socioeconomic terms. “Ethnicity” becomes relevant to health inequalities and inequities when referring to “ethnic minorities”. Including the notion of “minorities” indicates the unequal distribution of resources with power as a central concept. Members of these groups have different cultural norms and values from the majority culture and often a different mother tongue [36]. Ethnicity is therefore used to create or maintain boundaries between groups.

The anthropological model of ethnicity describes ethnicity as a component of cultural differentiation and uses the concept of ethnicity to express the centrality of culture. Culture is the outcome of the interactions between members of an ethnic group and is the cement that binds the group together. Like culture, the ethnicity of an individual is a constantly changing characteristic. This represents a major limitation with using ethnicity to categorise groups. Moreover, ethnicity includes both a collective identity and personal self-identification with a group [34]. It is a social phenomenon, influenced by social, economic, and political factors. All of these contextual factors determine the expression and the social importance of ethnicity at a macro level but also at the level of the individual [11]. Membership of an ethnic group requires a double assessment: self-identification and recognition of this ethnic group by other groups. This differs from belonging to a racial group, which is the result of social categorisation and thus externally defined. Belonging to an ethnic group, on the other hand, has more to do with internal definitions and self-ascription [34].

Background: *Ethnic minorities in Belgium*
There is no ethnic census in Belgium; therefore it is difficult to have an accurate picture of the ethnic composition of the Belgian population. However, several ethnic groups have been identified: Muslims (who are further divided into Moroccans and Turks), Jews, Roma people, and sub-Saharan Africans[7]. Muslims represent between 300,000 and 400,000 individuals [37]. As for the Roma people, a distinction is made between Travellers ("Voyageurs", Manouches, and Romani), who mostly have Belgian nationality and represent around 9500 individuals, and the Roma (from Eastern Europe), who represent around 30,000 individuals [38]. In the scientific literature three groups are most commonly referred to by the term "ethnic minorities": Italians, Moroccans, and Turks [39].

1.3. Race

Although the concept "race" is poorly used in the western European context, this concept is frequently used in US studies and sometimes in UK studies. This section therefore aims to clarify the differences between race as a biological concept and race as a social construct. In Western Europe, the concept of "race" is frequently associated with reminders of the colonial past and World War II and is therefore rarely referred to in the literature or civil society.

Race as a biological concept is based on the idea of a common gene pool and common physical characteristics. These characteristics were assumed for decades to be stable and inherited. Problems arise when these biological or physical

---

[7] The Special Rapporteur of the European Union recognised the French speaking people living in the Flemish municipalities as an « ethnic minority ». But, as this decision was highly controversial, this group will not be presented as an ethnic minority in this thesis. Moreover the discrimination experienced by this minority has more to do with the local regulations in the municipalities than with the access and the quality of care.

characteristics are used to define social groups. This system of classification assumes that particular physical characteristics are markers of race, that racial groups are distinct from one another, and that each race has its own cultural beliefs and behaviours [40]. It also implies that biological characteristics correspond to social categories and that there is genetic homogeneity within what are actually heterogeneous groups [41]. In fact, the genetic variation between members of the same group is more important than the overall genetic variation between different groups [42,43].

When considering race as a social construct, race stands as a proxy for specific sociocultural, economic, and historical processes and experiences [10]. The term “race” may capture the behavioural and structural differences between racialised groups. Genetic variation amongst humans is acknowledged but this variation does not correspond with modern racial categories (e.g. as used in the census in the USA). The experience of racialization life affects health outcomes but the concept of race itself has no biological or genetic basis [10,43,44].

1.4. Discrimination and racism

Because ethnicity is defined in relation to social and/or cultural differences, discrimination turns out to be a key element in this thesis. As stated earlier, belonging to an ethnic group or being a migrant becomes problematic when this prevents individuals from accessing the same resources and opportunities as the rest of the population.

Nancy Krieger (2001) defines discrimination as “*the process by which a member, or members, of a socially defined group is, or are, treated differently (especially unfairly) because of his/her/their membership of that group […]. This unfair treatment arises from socially derived beliefs each [group] holds about the other and patterns of dominance and oppression, viewed as expressions of a struggle for power and privileges*” (Retrieved from Krieger, 2001 [44]). This definition emphasises the differential treatment that ethnic minorities may experience. The American National Research Council defines discrimination according to two components: first, "*differential treatment on the basis of race that disadvantages a racial group" and second, "treatment on the basis of inadequately justified factors other than race that disadvantages a racial group (differential effect*)" (Retrieved from National research council, 2004, page 39 [45]). In other words, delivering standardised health care, considering that every patient has the same needs, is as discriminatory as overt racism. Health is affected by discrimination in three main ways: differences in opportunities (such as employment) and living conditions, differences in treatment, and stress [46-48]. The section on the health of migrants and ethnic minorities will present a more in-depth discussion of the effects of racism and discrimination on health.

Racism is "*an ideology which identifies a social group according to a particular biological characteristic and uses this to draw negative assumptions regarding that group's nature or capabilities*" (Retrieved from Karlsen & Nazroo, 2004 [48]). Racial discrimination or racism is often divided in two categories: intentional or direct racism and unintentional or indirect racism. In the latter situation, the individual being discriminated against may be unable to comply with a requirement that cannot be justified other than on a "racial" grounds, e.g. speaking the language of the host country in order to be able to access social assistance services, or the individual may have fewer resources to enable him/her to access services when compared to the rest of the population. Unintentional racism is related to institutional racism. Institutional racism refers to "*the continued (conscious or unconscious) use of unfair policies or procedures by large-scale enterprises with no consideration as to how this may disadvantage certain ethnic groups (Macpherson 1999)*" (Retrieved from Karlsen, 2007 [47]).

In this thesis, we will refer to "migrants and ethnic minorities" (hereafter: MEM), as this term may best reflect a group's origins: members of the group perceive themselves to be or are considered by the host society to be disadvantaged compared to the majority population, as a result of their belonging to this group. In Belgium, this is especially the case for populations with a Turkish or Moroccan background. As it is quite difficult to distinguish between categories of migrants, this term allows the inclusion of all persons who may be affected by ethnic inequalities.[8]

---

[8] For those who have a special interest in the measuring of ethnicity and migrant status in Belgium, Note 1 provides an overview of recommendations and the Belgian context.

2. HEALTH OF MIGRANTS AND ETHNIC MINORITIES

The health status of MEM is highly heterogeneous. On the one hand, some MEM have a better health status than the host country population. This is known as the "healthy immigrant effect". MacDonald and Kennedy (2004) described the healthy immigrant effect as "*an observed time path in which the health of immigrants just after migration is substantially better than that of comparable native-born people, but worsens with additional years in the new country*" (Retrieved from MacDonald and Kennedy, 2004, p1613 [49]). On the other hand, it also known that some MEM have a poorer health status than the general population.

2.1. Health status of migrants and ethnic minorities in Belgium

Table 1 displays the main data available on the health status of MEM in Belgium. Overall, the health status of MEM in Belgium is heterogeneous. MEM from Turkey and Morocco have a lower mortality risk than Belgians [50], but are more likely to report long-standing illnesses [51]. A gender gradient is also observed: women from MEM backgrounds have a higher risk of having Type 2 diabetes mellitus when compared to men from MEM backgrounds [52]. Both women and men from MEM backgrounds are more at risk of having Type 2 diabetes mellitus when compared to Belgians. These trends are consistent with the results of other studies in Europe and elsewhere [53-59]. There is, however, not enough data to give us an accurate overview of the health status of MEM in Belgium (i.e. for cardiovascular diseases or oral health).Similarly, Belgian studies have shown inequalities in access to, use of, and quality of health care between MEM and the general Belgian population. In primary care services, when compared to the general Belgian population, MEM from Turkish or Moroccan backgrounds are less likely to have referent GPs, screening, or vaccinations [60,61]. MEM also have lower access to specialised medicine in Belgium [61]. These findings are consistent with other studies across Europe [59,62-64].

Table 1: Overview of the health status of migrants and ethnic minorities in Belgium

Study details	Year(s) of data collection	Ethnic group[1]	Health variables	Values
		MORTALITY[A]		
Deboosere & Gadeyne (2005)[50][2].	1991-1995	French men	overall mortality	1.06*** (RR) [1.00-1.14]
		Moroccan men	overall mortality	0.42 [0.38-0.46]
		Sub-Saharan women	overall mortality	1.38 [1.21-1.57]
		Spanish women	overall mortality	0.44 [0.35-0.55]
		French men	mortality due to heart disease (incl. ischaemic)	1.05 [0.85-1.29]
		Moroccan men	mortality due to heart disease (incl. ischaemic)	0.55 [0.40-0.76]
		German women	mortality due to heart disease (incl. ischaemic)	1.47 [0.96-2.27]
		Spanish women	mortality due to heart disease (incl. ischaemic)	0.34 [0.11-1.07]
		French men	mortality due to lung cancer	1.07 [0.83-1.38]
		Moroccan men	mortality due to lung cancer	0.45 [0.29-0.69]

Table 1(continued)

Study details	**Year(s) of data collection**	**Ethnic group[1]**	**Health variables**	**Values**
		MORTALITY[A] (continued)		
		German women	mortality due to lung cancer	1.43 [0.81-2.53]
		Spanish women	mortality due to lung cancer	0 [0-0]
		Sub-Saharan men	mortality due to infectious and parasitic diseases	5.15 [3.65-7.27]
		Sub-Saharan women	mortality due to infectious and parasitic diseases	19.24 [13.56-27.29]
Vandenheede et al. (2011) [65].	2001-2005	North African men	mortality due to diabetes	1.34 [0.95-1.92][4]
		North African women	mortality due to diabetes	1.85 [1.09-3.12][5]

Table 1 (continued)

Study details	**Year(s) of data collection**	**Ethnic group**[1]	**Health variables**	**Values**
		COMMUNICABLE DISEASES[B]		
Verbrugge and Sasse (2011) [66].	2010	foreigners (Sub-Saharan Africans, Europeans, North Africans, and Latin Americans)	IST (gonorrhoea, syphilis, and chlamydia)	29% (223/768)*
			chlamydia	34.5% (133/386)[6]
			gonorrhoea	44/131[7]
			syphilis	36/121[8]
Sasse A. et al. (2010) [67].	2009	foreigners (Sub-Saharan Africans, Europeans, and North Africans)	HIV	60/99
FARES (2013) [68].	2011	Moroccans, Romanians, and Guineans[3]	tuberculosis	52.1% (544/1044)
		PERCEIVED HEALTH[A]		
Lorant et al. (2008) [51].	2001	Turks	poor self-rated health	2.96 [2.87-3.06]
		Moroccans	poor self-rated health	2.32 [2.27-2.38]
		Turks	long standing illness	1.51 [1.46-1.56]
		other Maghrebians	long standing illness	1.35 [1.27-1.45]

Table 1 (continued)

Study details	Year(s) of data collection	Ethnic group[1]	Health variables	Values
		PERINATAL HEALTH		
Observatoire de la santé et du social de la région de Bruxelles-capitale (2005) [69].	1998-2004	Turks	perinatal mortality for singleton births	1.60 [1.10-2.31][9A]
		Maghrebians and Egyptians	proportion of births by nationality	13.3% (54.2% Belgians)[C]
Buekens et al. (1998) [70].	1981-1988	North Africans	neonatal deaths per 1000 births	7.5% (5.4% among Belgians)[C]
		North Africans	low birth weight (<2500g)	0.58 [0.54-0.62][A]
Haelterman et al. (2003) [71].	1996	Sub-Saharan Africans	severe pre-eclampsia	4.3 [1.6-11.8][A]
		MENTAL HEALTH		
Levecque et al. (2007) [72].	HIS 2001	Turks and Moroccans	depression	1.74 [1.05-2.89][10 A]
		Turks and Moroccans	general anxiety, SCL severity threshold at 90%	1.56 [0.93-2.61][10 A]

Table 1 (continued)

Study details	**Year(s) of data collection**	**Ethnic group**[1]	**Health variables**	**Values**
		MENTAL HEALTH (continued)		
Derluyn et al. (2008) [73].	not reported	migrant adolescents	clinical problems scale (>90th percentile)	7.3% (7.4% Belgians)[C]
		migrant adolescents	clinical post-traumatic stress disorder (>90th percentile)	14.5% (5.5% Belgians)[C]
			Anxiety (HSCL-37A)	12.5% (11.1% Belgians)[C]
			depression (HSCL-37A)	11.5% (8% Belgians)[C]
		NON-COMMUNICABLE DISEASES[A]		
Vandenheede and De Boosere (2009) [52].	HIS 1997, 2001, 2004	Turkish men	Type 2 diabetes mellitus	1.06 [0.24-4.67][11]
		Moroccan men		1.80 [0.91-3.55][11]
		Turkish women		6.87 [3.16-14.93][11]
		Moroccan women		2.21 [1.14-4.30][11]

A Odds ratio [CI95%]

B Incidence

C Prevalence

[1] Belgians were the reference group [2] Other causes of mortality existed [3] Only the 3 main countries are cited

[4] Age-adjusted and adjusted for SEP indicators (housing status, education)

[5] Brussels only adjusted for SEP indicators (housing status, education)

[6] More than 30 % of the patients with chlamydia infections came from another European country, for both genders. In Flanders, ¾ of male patients with chlamydia infections were Belgians. This proportion was lower for women (63%). More than 10 % of these women came from another European country and almost 10% came from sub-Saharan Africa. For men, the distribution according to nationality differed between Wallonia and Flanders: besides the Belgian men (56%), more than 30% of the men came from North Africa in Wallonia. For women, the distribution according to nationality was similar when comparing Flanders with Wallonia (adapted from Verbrugge & Sasse, 2011).

[7] More than 12 % of men from North Africa, 13 % of men from other European countries, and 17 % from sub-Saharan Africa. In Wallonia, there were more men with Belgian nationality than men from North Africa (adapted from Verbrugge & Sasse, 2011).

[8] At a national level, more than 70 % of patients suffering from syphilis had Belgian nationality and more than 10 % came from another European country. In Wallonia, besides Belgian patients, more than 28 % of patients suffering from syphilis came from North Africa. In Brussels, besides Belgian patients, patients from other European countries and Latin America were also observed (adapted from Verbrugge & Sasse, 2011).

[9] Adjusted for age and number of persons in the household with a labour income

[10] Adjusted for gender, age, household type, educational level, labour market position, income, and home ownership

[11] Adjusted for BMI, physical activity, educational level, and income

Note: A quick search in Scopus on June 11, 2013 identified 96! Publications [Key words: Belgium, migrants, ethnic minorities]

2.2. Causes of inequities

Charles Tilly's theory of Durable Inequalities (1998) sheds some light on the mechanisms underlying inequities. At the centre of Tilly's theory is the concept of categories: "*a category is a group of people sharing a boundary that distinguishes them from, and relates them to, a group of people excluded by such boundary*" (Retrieved from Lorant & Bophal, 2011 [74]). Inequality is explained by exploitation and opportunity hoarding. Exploitation refers to situations in which a dominant group enlists a dominated group to produce economic goods while the simultaneously excluding the same dominated group from the full benefits of its efforts. Opportunity hoarding refers to situations in which a dominated group tries to monopolise a resource, such as a labour market niches [74,75].

Tilly (1998) postulates that discrimination is related to a process of matching internal categories of inequality with external categories of inequality. Internal categories of inequality are derived from the categories created by organisations and the roles assumed by the different actors within those organisations. A familiar example is the difference between the patient and the physician. External categories of inequality are imported into the organisation. An example is gender differentiation. This theory relies on the important assumption that the matching of internal and external categories reinforces inequality within the organisation, because this matching process is supported by socially valued categories [75]. Consequently, access to resources and opportunities is determined by membership to some social groups.

Two additional mechanisms underlying inequality are emulation and adaptation: emulation refers to the copying of established organisational models from one place to another, while adaptation refers to routine facilitating social interactions that ensure the normalisation of structural inequality on a daily basis [75].

The model of inequality of this thesis is based on the theory of Durable Inequality of Tilly (1998), which emphasizes the co-construction of ethnic and socioeconomic forms of inequality and its consequences in the persistence of such inequality.

2.3. Socioeconomic status of ethnic minorities

MEM often experience lower socioeconomic status than the rest of the population. Lower levels of education, higher rates of unemployment, and lower incomes are more common amongst MEM than within majority groups [76]. In Belgium, in 2008, migrants of Moroccan or Turkish origin had an unemployment rate of 21.8 %, while the unemployment rate for Belgians was 6.6% [51]. In 2010, of the resident population born outside of the European Union, almost 40% were unemployed, 46.5 % were employed, and 14.3 % were unemployed, while the unemployment rate for Belgians was 4.7% [77]. Furthermore, MEM often live in deprived neighbourhoods with poor housing conditions, more environmental hazards, low food availability, and inadequate public services, such as health and social services [51,78]. Relevant socioeconomic factors also include legal residence status: whilst “regular” migrants have access to the national health system (through compulsory insurance coverage), “irregular” migrants will only be able to access the health system through the “urgent medical aid” procedure. All of these socioeconomic factors will strongly affect the outcomes of health interventions [78]. In some cases, controlling for socioeconomic status decreases [79], neutralises [80], or even reverses the differences MEM and the general population [81]. However, under some circumstances, morbidity risks remain higher for MEM even after adjusting for socioeconomic variables [52,65]. Socioeconomic factors alone thus failed to explain the remaining differences in health status between MEM and the general population.

Other explanatory factors of health inequities for MEM are racism and discrimination. Racism and discrimination are related to a higher risk of premature death, high blood pressure (with consequent cardiovascular risk), Type 2 diabetes mellitus, respiratory illness, lower self-esteem and life satisfaction, psychological distress, depression and anxiety, suicidal tendencies, stress and anger, cigarette smoking and alcohol use, low birth weight of children, psychosis, and work-limiting long-term illness and disability [47,48,82-84]. In addition, racism and discrimination reinforce social stratification due to ethnicity [76] and therefore increase the risk of poor health status and/ or inadequate health care.

Both discrimination and socioeconomic factors interact with individual characteristics and personal health behaviours[9]. In other words, health outcomes of MEM are the product of complex interactions between socioeconomic context, differential exposure (e.g. the living conditions), differential vulnerability (e.g. belonging to a specific group such as women or the elderly), and personal health behaviours [3,4,85]. If all of these factors are taken into account, it must be agreed that a complex model of interventions is required if differential consequences of such inequalities [85] are to be reduced at the individual level. The next section presents models of interventions.

---

[9] See the work of A. Deccache for a detailed overview of the personal factors influencing health behaviours.

3. CULTURAL COMPETENCE IN HEALTH CARE FOR MIGRANTS AND ETHNIC MINORITIES

The subject of migration and health has received increasing amounts of attention in recent years in the OECD countries, and has already been included in several social and political debates: the Universal Declaration of Human Rights [86], the Charter of the Fundamental Rights of the European Union [87], European directives [32,88-94], the Amsterdam Declaration on migrant-friendly hospitals [95], the Council of Europe [96], and Resolution WHA 61.17 [4]. Some countries, including the United Kingdom, the Netherlands, and Switzerland, have already incorporated these recommendations into their health care policies for MEM [97,98]. The NHS' "Checking for Change' program in the UK identifies actions that health care services may develop to reduce inequality between MEM and the general population autochthons [97]. The acknowledgment of the particular vulnerability of MEM has led to the development of cultural competence in health care. This section provides a short overview of definitions of cultural competence and of the main culturally competent interventions, according to the CSDH[10] Equity model [85].

3.1. Overview of definitions of cultural competence

Table 2 presents a non-exhaustive overview of definitions of cultural competence. All definitions of cultural competence include the concept of culture and difference (or diversity). However, the concept of culture has changed over time. The very first definitions of cultural competence perceived culture as static and homogeneous. MEM were considered to be a small number of homogeneous groups (e.g. African Americans) [99]. Cultural competence was operationalised through "cook books" of multiculturalism [100]. Later, culture was perceived as being dynamic and heterogeneous, with some attention being given to other aspects of social position and personal characteristics. In this context, MEM are

---

[10] Commission of Social Determinants of Health

made up of a large number of groups, in which the members are not homogeneous [101,102]. This period saw the development of cultural humility within the context of “super diversity”. Contemporary models of cultural competence are based on responsiveness to diversity and are concerned with giving special attention to the socially excluded. Interventions seek to include every variable may be related to diversity, i.e. linked to health inequities [99,103]. We have also observed a change in terms of those targeted by cultural competence. The definition in Cross et al. (1989) targeted policymakers, institutions, providers, and consumers (i.e. patients) [103]. However, the definitions in Beach (2005) [104], Gozu (2007) [105], and Seeleman (2009) [100] focus only on providers. Kirmayer (2012) [99], Betancourt (2003) [106], and Brach (2000) [101] include providers and institutions. Racism, discrimination, and disadvantaged socioeconomic conditions are acknowledged as causes of inequality in almost all definitions, but authors concluded that these dimensions were still not being taken sufficiently into account in interventions [100,105,107].

Table 2: Overview of the definitions of cultural competence (by date of publication)

Authors	Definition of cultural competence	Level of intervention	Causes of inequality	Attention to Discrimination	Attention to Social Issues	Country
Cross et al. (1989) [103]	Set of congruent behaviours, attitudes, and policies that come together in a system or agency or among professionals to enable that system or agency or those professionals to work effectively in cross-cultural situations	Consumers Providers Administrative Policymakers	Limited access to economic or political power Cultural differences due to ethnicity and race Discrimination in society due to race and ethnicity	Yes The authors referred to social stereotypes and to the Tuskegee experiment and mentioned racism	Yes	USA
Brach et al. (2000) [101]	Set of congruent behaviours, attitudes, and policies that come together in a system or agency or among professionals to enable that system or agency or those professionals to work effectively in cross-cultural situations and across language barriers	Providers Institutions Administrative	Cultural and linguistic differences due to ethnicity or race	None	None	USA

Table 2 (continued)

Authors	Definition of cultural competence	Level of intervention	Causes of inequality	Attention to Discrimination	Attention to Social Issues	Country
Betancourt et al. (2003) [106]	Acknowledgement and incorporation at all levels (of the HCS) of the importance of culture, the assessment of cross-cultural relations, vigilance towards the dynamics that result from cultural differences, the expansion of cultural knowledge, and the adaptation of services to meet culturally unique needs	Organisational Structural Clinical	Social determinants of health external to the health care delivery system Racism Variations in patient's health beliefs, values, preferences, and behaviours (due to race or ethnicity)	None	In potential confounding factors of inequality	USA

Table 2 (continued)

Authors	Definition of cultural competence	Level of intervention	Causes of inequality	Attention to Discrimination	Attention to Social Issues	Country
Beach et al. (2005)[104]	Ability of individuals to establish effective interpersonal and working relationships that supersede cultural differences by recognising the importance of social and cultural influences on patients, considering how these factors interact, and devising interventions that take these issues into account	Providers	Reference to the US federal report "Unequal Treatment: Confronting Racial and Ethnic Disparities in Care".	The authors recognised that racism was not acknowledged by cultural competence initiatives	In potential confounding factors	USA
Gozu et al. (2007) [105]	Acknowledgement and incorporation at all levels (of the HCS) of the importance of culture, the assessment of cross-cultural relations, vigilance towards the dynamics that result from cultural differences, the expansion of cultural knowledge, and the adaptation of services to meet culturally unique needs	Providers	Reference to the US federal report "Unequal Treatment: Confronting Racial and Ethnic Disparities in Care".	The authors recognised that racism was not acknowledged by cultural competence initiatives	The authors recognised that social issues were missing in scales assessing cultural competence	USA

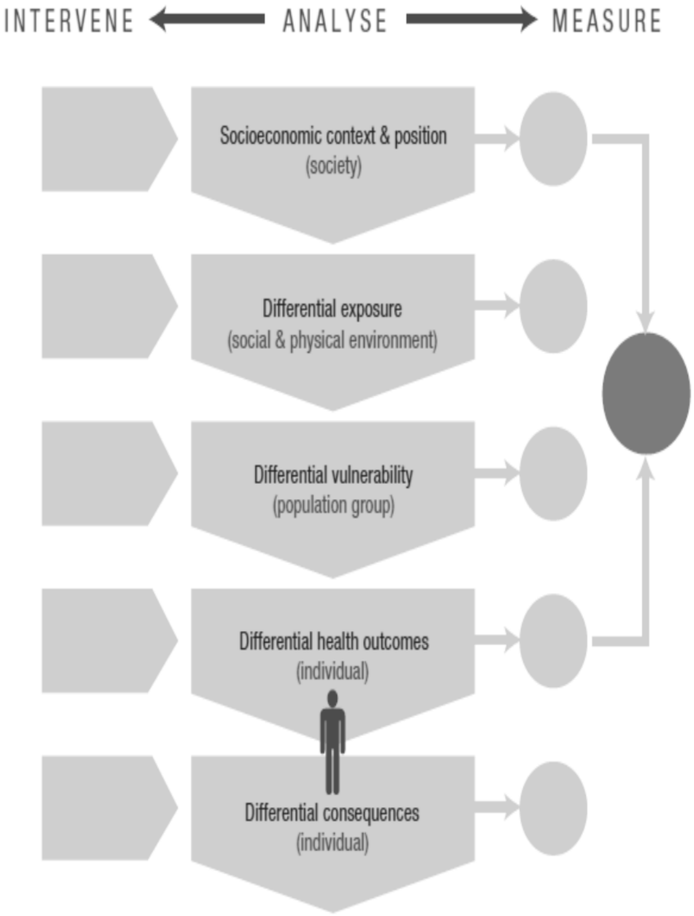
Table 2 (continued)

Authors	Definition of cultural competence	Level of intervention	Causes of inequality	Attention to Discrimination	Attention to Social Issues	Country
Seeleman et al. (2009) [100]	Combination of knowledge about certain cultural groups, attitudes towards cultural diversity, and skills for dealing with cultural diversity	Providers	Reference to the US federal report "Unequal Treatment: Confronting Racial and Ethnic Disparities in Care".	Yes, but at the individual level: stereotype and prejudice	Yes: in recommendations for development of competence	The Netherlands
Kirmayer (2012) [99]	Inclusion of interpersonal skills, ethical commitments, the ability to effectively refine and use one's empathic capacity, an emphasis on professional competence in the domain of culture, preventing the risks of reifying, preventing the risks of appropriating rather than respecting and engaging the other's life world	Professionals Institutions	De-contextualisation of guidelines for clinical practice and therapeutic interventions Social inequality	No	Yes	Canada

3.2. Culturally competent interventions

The previous section highlighted the complex interactions between the causes of inequities. The following section is organised according to the CSDH Equity framework [85] (Figure 1).

Figure 1: Priority public health conditions analytical framework of the Commission of Social Determinants of Health, 2010 [85]



©Reproduced with the authorisation of the World Health Organisation

3.2.1. Context and socioeconomic position

Context and socioeconomic position constitute the macro-level in terms of the approach to health inequalities. This encompasses governance, social and public policies, and macroeconomic structures, as well as the values and culture of the society. There are four main components to be considered under context and socioeconomic position. These are: rules and regulations, social protection, public policies in a broad sense (i.e. education and the labour market), and culture [3,85].

At the level of context and socioeconomic position, cultural competence is operationalised chiefly through health policies and action plans for diversity in health care, but also through the labour market and in education. Indeed, as illustrated by Tilly's theory of Durable Inequality (1998), tackling ethnic inequality requires macro-level strategies that use a "health in all policies" perspective [76,108]. In other words, policymakers must integrate a health dimension into their policies or at least take into account the potential effects on health of each public policy. Another dimension of policies concerns rules and regulations surrounding citizenship and nationality. In Belgium, citizenship is strongly related to nationality, whilst in other countries, e.g. in the United Kingdom, citizenship is related to birthplace and length of residence in the country. Voting rights for non-European citizens in Belgium is only granted for local elections and only after 5 years of residency [109].

***Background**: Migrant friendly policies in Belgium*

Efforts to tackle health inequities in Belgium remain rare, as was highlighted in the "Assises de l'Interculturalité" (2001) [110] and "TAHIB" (2010) [111] reports. Belgium still needs a clear and ambitious normative framework aimed at reducing health inequalities for migrants and ethnic minorities [109]. Jacobs and Rea (2005, 2012) also highlighted the difficulty of achieving a consensus at political level on what causes inequality in Belgium [112,113]. In Flanders, the concept of ethnic minorities is well-recognised and integrated into some public policies. In Wallonia, however, policymakers emphasise the socioeconomic conditions of individuals as being the primary cause of inequality. This makes it difficult to set up federal policies that promote a migrant-friendly approach. However, Belgium does have a specific health policy that allows irregular migrants to receive health care. The

"Urgent Medical Aid" procedure is delivered by local councils via public welfare centres. The "Urgent Medical Aid" procedure encompasses a broad spectrum of health care activities, within inpatient and outpatient services. Refugees benefit from the same National Health Insurance as Belgians, while asylum seekers receive health care at reception centres.

At the contextual level, interventions may also consist in elaborating norms for training in cultural competence and developing accreditation procedures for culturally competent health professionals. As is the case for accreditation for emergency care departments or ethical lifelong learning, national norms or standards could make up part of the accreditation process for health services and health institutions. In the United States of America, the CLAS standards play this role [114], while the United Kingdom's National Health Service is linked to a diversity plan [97].

Numerous models for training in cultural competence have been suggested [115-122]. For example, Campinha-Bacote (2002) considers cultural competence to be a process with 6 interacting dimensions: cultural skill, cultural awareness, cultural knowledge, cultural encounters, and cultural desire [116]. Although the frameworks differ, most training programs highlight the role played by culture in the therapeutic encounter and the need for it to be taken into consideration as part of the delivery of care.

Some training programs focus on specific care for migrants [115], while others warn that providing culturally-specific care could increase the risk of stereotyping [121]. Some training programs aim to increase attitudes-based skills such as empathy or respect, while others focus on knowledge and practice (i.e. understanding the religious rituals of the patient). Training programs are also aimed at different types of health professional, from nurses [118,119,121] and physicians [115,122] to pharmacists [123] and physiotherapists [124]. Some programs are also concerned with specific health services or specialities, such as psychiatry [125] , health promotion [126], or community care [127].

3.2.2. Differential exposure

The more favourable an individual's social position, the less that individual is exposed to risk factors such as material, psychosocial, and behavioural risks. Differential exposure concerns actions aimed at reducing inequality in terms of resources, risky behaviours, or other health hazards. This includes initiatives such as health promotion, health education, primary, secondary, and tertiary prevention, as well as the promotion of healthy environments.

Differential exposure implies the development of responsive health services [128]. Responsiveness includes "*the adequacy of health care facilities in relation to the needs of migrant and minority patients, and covers both structural aspects of hospitals and training for health professionals*" (retrieved from Bischoff, 2004 [128]). In practice, it consists of, amongst other things, adapted visiting hours, interpreting facilities, the hiring of intercultural mediators (see below for a detailed description), and collaboration with religious leaders as well as routinely providing meals that respect religious customs [129]. All of these initiatives may be included in the strategic development plans of the health services, including quality of care and patient safety.

3.2.3. Differential vulnerability

Different groups of people will be affected differently by similar levels of exposure to risk factors, either because of their social, economic, or cultural environment, or because of life course. This vulnerability does not affect society as a whole, only certain specific groups, such as women, children, or the elderly. In order to address differential vulnerability, some countries have developed specific health services for migrants and ethnic minorities. Examples can be seen in the United Kingdom's National Health Service (NHS) and in the United States. Culturally tailored health programs may target certain pathologies, such as diabetes [130,131] or asthma[132], or certain educational requirements, such as HIV prevention or prenatal care [133]. These programs involve culturally-tailored health education tools for MEM [134,135].

3.2.4. Differential health outcomes

Actions conducted at this level aim to provide the required health care for each individual in the manner that is most beneficial. In practice, this means reducing all systematic differences in health outcomes between socioeconomic or ethnic groups, so that all socioeconomic groups may achieve the same health level as the most advantaged group.

Differential health outcomes could be addressed through culturally competent communication. Using interpreters and reinforcing intercultural communication increases satisfaction on the part of MEM and improves the quality of health care and the accuracy of the treatment [136-138]. Such measures increase accessibility to health care services, including specialty medicine and screening facilities.

***Background**: Intercultural mediation in Belgium*

Since 1997, the Ministry of Public Health has funded the use of intercultural mediators in general and psychiatric hospitals in Belgium. Intercultural mediators act as bridges between patients and health professionals. Cultural mediation includes interpreting, health education, and advocacy [139]. Nierkens et al. (2006) evaluated the effect of intercultural mediation on quality of care and concluded that the length of stay in a host country did not decrease the need for intercultural mediation [140]. In 2009, intercultural mediators were involved in 80,000 interventions in no less than 17 languages [141]. Fifty-two general hospitals and twelve psychiatric hospitals currently have on-site intercultural mediation services. In addition to face-to-face interventions, the Ministry of Public Health funds an intercultural mediation pilot project using online teleconferencing.

Another way to address differential health outcomes is to encourage ethnic and cultural concordance between health professionals and patients. Ethnic and cultural concordance involves having a health professional that shares at least a common ancestry with the patient and several aspects of a common culture [142-

145]. Socioeconomic transition within some groups of migrants (i.e. second-generation migrants from Morocco and Turkey) and the migration of qualified health professionals increase the possibility of providing MEM with a race-concordant or culturally-concordant health professional [19]. Cultural concordance has been developed in several areas, including asthma [146], dementia [147], and HIV [148]. Cultural concordance has been used to improve the use of health services [149], use of screening services [150], satisfaction of patients [142], therapeutic alliance , and quality of care [151]. Cultural concordance increases patient satisfaction, improves the use of the health care services, and reduces the length of hospital stays [152].

Another strategy used to reduce differential health outcomes is empowerment. Bisschof (2003) stated that empowerment is "*similar to responsiveness but goes further in enabling patients to participate fully in decision-making*"[128]. Empowerment is operationalised through the use of peers and the involvement of communities in the process of delivering health care. For example, the non-profit association "Les Pissenlits" is led by patients and health professionals and organises community-based activities around health topics such as Type 2 diabetes mellitus. All of the activities are decided upon by the patients involved in the association[11].

3.3. Factors influencing the implementation and development of cultural competence

Whichever type of culturally competent intervention is chosen, its implementation and development in the context of health care delivery are influenced by several factors, at both the individual and the contextual level.

---

[11] For more information: http://www.lespissenlits.be/

3.3.1. *Individual factors*

Table 3 presents the main individual factors influencing the degree of cultural competence of health professionals and the ways in which these factors influence cultural competence[12]. We identified invariant personal factors (e.g. gender or ethnicity), factors related to professional background (e.g. being a nurse), and behavioural factors (e.g. degree of confidence). Training programs focused on behavioural factors. Exposure to MEM and exposure to positive attitudes towards migration are two predictors of culturally competence.

Table 3: Summary of individual factors influencing the cultural competence of health professionals

Individual factors	**Effects on cultural competence**
Personal characteristics	
Ethnicity / race	Health care professionals from ethnic minority backgrounds are more culturally competent than health care professionals coming from a majority group [153-156].
Gender	Women are perceived as being more culturally competent than men by patients Women are more likely to agree with power statements reflecting cultural competence than men. BUT Men feel more prepared to provide culturally competent care than women [153-156].
Age	Younger health professionals tend to have greater knowledge of cultural competence than older health professionals [153,155].
Political orientation	Health professionals with democratic political orientations (US) are more culturally competent than health professionals with conservative political orientations [155].

---

[12] The list of the factors is non-exhaustive.

Table 3 (continued)

Individual factors	**Effects on cultural competence**
Personal characteristics (continued)	
Loaded personal life experience (for migrant and ethnic minority health professionals)	Health professionals from migrant backgrounds may be less in favour of culturally competent interventions if they themselves did not experience this support when they arrived in the host country [157].
Internalised racism	Health professionals from migrant backgrounds are more likely to express racist attitudes towards their own racial group [157].
Professional characteristics	
Professional background, i.e. nurse/physician	Nurses are more culturally competent than physicians [155].
Specialty, i.e. family medicine, internal medicine.	Family medicine residents are more likely to provide cross-cultural care than residents in paediatric, gynaecology and obstetrics, and internal medicine. Residents in psychiatry report higher levels of cultural competence than residents in emergency medicine [153,158].
Experience – years in organisation / since graduation	No significant association was found between years in the organisation or years since graduation and cultural competence [155].
Training characteristics	Patient-centred curricula are associated with higher levels of cultural competence when compared with non-patient centred curricula (these differences were observed between resident physicians)[158].
Language abilities	Health professionals who speak several languages are more culturally competent than health professionals who speak only one language [153].
Multi-cultural contacts during residency	The more cultures a health professional encounters a in his/her patients during training, the more he/she feels prepared to care for MEM [158].

Table 3 (continued)

Individual factors	**Effects on cultural competence**
Professional characteristics (continued)	
Previous training in cultural competence	Health professionals who had received previous training during their professional education were more confident that they could provide culturally competent health care. The more the curricula involved culturally competent instructions and training, the more the health professionals reported feeling prepared to deliver culturally competent care [153,154,156,158].
Training outside the USA	Having received training outside the United States is associated with a higher level of confidence to provide culturally competent care among physicians and nurses [153].
Behavioural characteristics	
Access to role models in cross-cultural care	Health professionals who had access to role models that promoted culturally competent care during their training felt more prepared to deliver culturally competent health care than health professionals who did not have access to such role models [159].
Pressure to assimilate (for MEM health professionals): overwhelming desire to 'fit in' and to not been seen as 'different' by others"	Health professionals from MEM backgrounds may be less in favour of culturally competent interventions if they have a desire to be integrated [157].
Degree to which the provider considers that it is important to practice in diverse patient mix	The more the physician considers that it is important to practice in settings where the patients are of mixed cultural backgrounds, the more the physician feels competent to provide culturally competent health care[155].
Provider's awareness of his/her own influence on the patient's social and cultural characteristics	Health professionals who are aware of their own culture are more culturally competent than health professionals who are not [157].

Table 3 (continued)

Individual factors	**Effects on cultural competence**
Behavioural characteristics	
Degree of confidence in caring for disadvantaged	The more the health professional feels confident in caring for disadvantaged patients, the more he/she expresses an attitude that reflects cultural competence. However, this has no impact on culturally competent knowledge and behaviour [155].
Degree of confidence in caring for migrants	The less the health professional feels confident in caring for minorities, the less he/she claims to have knowledge of cultural competence. However, this has no impact on culturally competent behaviour and attitudes [155].
Communication style	Health professionals who adopt a communication style that incorporates psychosocial and cultural factors are more culturally competent than health professionals who do not adopt such a communication style [159].

3.2.2. Contextual factors

Health professionals and health services do not exist in isolation from their organisational and social environment [160]. The cultural competence of an organisation may also be the product of contextual influences at several levels. The development of cultural competence could be a consequence of market drivers. The motivation in such cases may be, as stated by Dogra et al. (2009), “being able to derive a competitive edge by having such training, quality of care, moral imperatives” [161].

Moreover, the diversity of ethnic groups in a given area may also be an external factor influencing the development of cultural competence [161]. Similar people tend to aggregate in the same geographical area due to attraction factors such as sharing a common culture or because of certain drivers, such as money or lack of resources [162]. The particular composition of the neighbourhood and the presence of migrant patients may influence organisations to develop cultural competence [161]. Chrisman (2007) states that permeable boundaries within the community and community coalition are two environmental drivers of cultural competence within an organisation [163].

Table 4 presents the main contextual factors influencing the implementation and development of cultural competence at the organisational level and the ways in which these factors influence cultural competence[13]. Internal factors (i.e. contextual factors within the organisation) and external contextual factors can be distinguished. The main internal factor is the positive attitude of the organisation's leaders, while the main external factor is exposure to MEM or vulnerable populations.

---

[13] This list of factors is non-exhaustive.

Table 4: Summary of contextual factors influencing the cultural competence of health professionals and the ways in which these influences cultural competence

Contextual factors	**Effects on cultural competence**
External factors	
Political incentives	An organisation is more likely to develop culturally competent care if political incentives require it to [101].
Public assistance programs	An organisation involved in public assistance programs is more likely to develop culturally competent care than an organisation that is not involved in public assistance programs (e.g. Medicaid or Medicare) [101].
Economic considerations	"Health care institutions are likely to adopt cultural competence techniques when it makes business sense for them to do so" [101].
Size of the organisation	The larger the organisation, the more difficult the implementation and/or diffusion of culturally competent interventions [161,163,164].
Internal factors	
Leadership and accountability	Organisations without leadership and accountability are less likely to implement culturally competent attitudes than organisations with leadership and accountability. The more the organisational milieu formally and informally supports and encourages culturally responsive assessment and service delivery, the more health professionals will develop cultural competence. Racist and assimilationist attitudes prevent the implementation and/or diffusion of culturally competent attitudes. A positive attitude on behalf of leaders towards intercultural care or a commitment towards intercultural care facilitates the implementation and/or diffusion of culturally competent attitudes. Organisations with cultural competence champions (i.e. influential leaders in cultural competence) are more likely to implement culturally competent interventions than organisations without cultural competence champions [161,163-166].

Table 4 (continued)

Contextual factors	Effects on cultural competence
Internal factors (continued)	
Internal incentives	An organisation is more likely to develop culturally competent care if internal incentives require it [101].
Resistance to change	The more the staff resists change, the less they will accept the implementation and/or diffusion of culturally competent interventions [157].
Partnership	Organisations in favour of partnership are more likely to implement culturally competent interventions than organisations without external partnerships. Organisations with inter-institutional relationships are more likely to implement culturally competent interventions than organisations without inter-institutional relationships. Organisations with joint activities are more likely to implement culturally competent interventions than organisations without joint activities [127,161,163].
Community level	Organisations addressing health problems at the community level are more likely to develop culturally competent health care than organisations addressing health problems at the individual level [127]
Patient-centeredness	The more patient-centred an organisation is, the more likely it is to develop cultural competence [127,161,163,164].
Power sharing	Organisations expressing power sharing with the patients are more likely to develop culturally competent health care than organisations that do not wish to share power with patients [127,161,163,164].
Staff support	Organisations with adequate staff support are more likely to adopt and implement cultural competence than organisations without adequate staff support [127,161,163,164].
Values	Organisations that promote diversity as valuable are more likely to develop cultural competence than organisations that do not promote diversity as valuable [127,161,163,164].

3.4. Impact of culturally competent interventions

Cultural competence aims to reduce ethnic health inequalities and to improve quality of health care, including accessibility and safety, for MEM patients [101,106,166-169].

At the individual level, culturally competent interventions improve adherence, compliance, satisfaction, and trust [170] on the part of patients, as well as improving some clinical outcomes such as glycated haemoglobin levels [171,172] and blood pressure [173,174]. Interpreters and intercultural mediators facilitate access to services, ensure continuity of care, and prevent conflict arising from misunderstandings between patients and health professionals [139,140,175-177].

At the organisational level, culturally competent interventions reduce the risk of diagnostic errors, improve the suitability of drug prescriptions, and improve the screening and regular follow-up of patients [101]. Culturally competent interventions also improve patient safety and accessibility to health services. They also improve the satisfaction of health professionals and may somehow prevent the burnout of health professionals by providing them with solutions for coping with diverse patients. Furthermore, the use of interpreters for MEM does not increase costs to the health system but tends to decrease them [178]. In a cost-benefit model of a patient navigator program, Clegg et al. (2011) reported savings of approximately $35,000 associated with fewer missed appointments [179].

4. CHALLENGING INEQUALITY & INVOLVING INSTITUTIONS

4.1. Knowledge gap

Despite promising results from culturally competent interventions, health inequities persist and are even increasing among MEM [180-183]. Cultural competence training for health professionals may increase the risk of stereotypes and prejudices against patients [100]. The use of an interpreter is likely to jeopardise the relationship between the health professional and the patient [184,185]. Racial concordance between patient and health professional has yielded non-significant results, especially when the health problem was grounded in cultural norms or values [142,145]. The effects of cultural competence on the quality of health care are still unclear and have yet to be fully investigated [186,187].

Moreover, some critics have questioned the importance awarded to other health determinants by culturally competent interventions. These other health determinants include socioeconomic factors, local context, and the interactions between health determinants [188,189]. Although authors acknowledged the existence of ethnic inequality, few integrated the theories of reduction of health inequality in the development of their models and/or definitions of cultural competence. As stated by Kirmayer (2012), cultural competence has become more and more decontextualised and has thus diverges from its initial objective of reducing health inequality [99].

Most previous empirical studies have aimed to either test the effectiveness of culturally competent interventions on the health outcomes of patients or to test the effectiveness of training models in cultural competence for health professionals. All of these studies have focused primarily on the individual level, especially as regards health professionals. So far, little interest has been paid to group-level determinants or to the importance of institutional and political levels. To our knowledge, no study has aimed to understand the mechanisms underlying the implementation and diffusion of cultural competence, from a long-term perspective.

In fact, it appears to be unrealistic to expect that a health professional can be culturally competent alone. Each health professional brings their own expertise when caring for patients. The health outcome of the patient will be affected by the combination of the complementary competences of each health professional [190,191]. The cultural competence of a health professional therefore depends on perceived (positive and negative) externalities. Externalities will influence individual choice in terms of direct and indirect effects (e.g. hiring an additional social assistant to manage administrative issues associated with irregular patients may also benefit elderly patients seeking placements in nursing homes).

Cultural competence may also depend on the effects of social learning. Network peers will provide information that influences the choices made by health professionals. This information may concern either the benefits of being culturally competent (e.g. reduction of the risk of misdiagnosis) or the costs of being culturally competent (e.g. sharing expertise or power with patients). The attitudes of health professionals to costs and risks may be influenced by social learning. A health professional may be more likely to work with an interpreter if one of his/her colleagues has shared a previous positive experience. This information reduces uncertainty and consequently reduces the reluctance of health professionals to adopting culturally competent practices.

Moreover, cultural competence may require the sharing of values between health professionals. In the absence of a positive normative influence at the group level, health professionals are not likely to adopt cultural competence. Even within structures that were more likely to rely on the use of the interpreters, it appears that health professionals prefer not to use interpreters [192]. Normative influence encompasses negative or positive sanctions associated with a specific behaviour or opinion. It favours either favours or does not favour the adoption of a specific practice, but may also prevent actors from adopting negative practices [193].

If these three elements are taken into account, it could be argued that cultural competence should be approached from an organisational level rather than an individual level.

4.2. General research questions and hypotheses

This thesis aims to challenging health inequities experienced by MEM by involving institutions at the meso- and the macro-levels. We hope to contribute to the understanding of the mechanisms underlying the implementation and diffusion of cultural competence among health professionals in Belgium. More specifically, this thesis aims to answer three main research questions:

- To what extent do culturally competent interventions contribute to the reduction of health inequalities (Chapter 1) and to the improvement of quality of care (Chapter 2)? We have answered this question by reviewing the literature.
- How cultural competence is implemented and diffused in the health services in Belgium (Chapters 3 to 6)? This question was addressed using the COMETH (Competences in Ethnicity and Health) study, a quantitative empirical study with a social network analysis design.
- What are the best practices and political recommendations for improving equity in health for migrants and ethnic minorities beyond cultural competence (Chapters 7, 8, and 9)? This question was addressed through debates in an expert group and a qualitative analysis of interviews with health professionals.

4.3. Outline of the thesis

This thesis is organised in three sections.

4.3.1. Contribution of cultural competence to the reduction of health inequalities and to the improvement of quality of care

First, we focused on cultural competence and the reduction of health inequalities. Chapter 1 presents a systematic, equity-oriented literature review. Within this review, we attempted to assess whether culturally competent interventions in the management of Type 2 diabetes mellitus converged with recommendations for the reduction of health inequalities. More specifically, we analysed whether the model of culturally competent interventions, its data design, data collection, and data analysis procedures implemented the recommendations for the reduction of health inequalities.

Chapter 2 presents the second part of our literature review, which focuses on the improvement of quality of care. This second systematic literature review used the Chronic Care model as a template applied to diabetes management to assess whether culturally competent interventions targeting patients from ethnic minorities suffering from Type 2 diabetes mellitus were included in more than just one dimension of disease management. More specifically, we addressed the following research question: to what extent do these culturally competent interventions reflect the dimensions of the Chronic Care Model framework?

4.3.2. Cultural competence in health services in Belgium: Results from the COMETH study

In this section, we present the results of the COMETH (Competences in Ethnicity and Health) study, which was conducted in 24 health services in Brussels and

Wallonia. Health professionals from different services were invited to fill in questionnaires about their cultural competence and their social relationships.

In Chapter 3, we attempted to assess the views of health professionals on their responsibility to adapt health services to the needs of migrants. Within a context of increasing diversity, culturally competent strategies have been recommended to improve care quality and access to health care for ethnic minorities. The implementation of such strategies by health professionals, however, has remained inconsistent. Most cultural competence programs assume that health professionals accept that they have a responsibility to adapt health care to immigrants, but this is far from being true in every case. We performed a factorial analysis in order to identify the dimensions underlying responsibility. We then performed a multi-level regression model in order to investigate individual and service covariates of responsibility attribution.

We also attempted to investigate the role of inter-professional relationships on the diffusion of cultural competence within health care organisations. In Chapter 4, we explored the leadership effect, asking the question: how do the most popular health professionals in a service influence the cultural competence of their colleagues? We tested the hypothesis that an individual is more likely to be culturally competent if his/her leaders are culturally competent themselves. We identified the most central actors within each health service according to in-degree centrality. We then performed a regression analysis on the cultural competence of individuals, compared to the cultural competence of the service leaders.

In Chapter 5, we attempted to answer the following question: is being culturally competent a socially shared behaviour? We tested two hypotheses: 1) that context influences the social structure of the health services and consequently the cultural competences of health professionals; 2) that two socially close health professionals are more likely to share the same level of cultural competence than two health professionals who are not socially close. We identified the social structure of each health service, worked out coefficients of social proximity (Moran’s I), and correlated the cultural competence between dyads.

Chapter 6 reports on our experience of conducting research into ethnicity and health using a social network analysis design. To our knowledge, this thesis is one of the first studies to combine cultural competence and social networks. We aim to share the strengths and weaknesses this approach in the Belgian context.

4.3.3. Best practice and political recommendations for the improvement of equity in health care for migrants and ethnic minorities

In Chapter 7, we present a study based on data from the EUGATE project. EUGATE was a European project that aimed to identify best practice in health services for migrants in Europe. In this study, we aim to identify the specific challenges experienced by professionals in clinical encounters with irregular migrants, paying particular attention to the differences between types of service and between the countries involved in EUGATE. We expected differences between countries and between services due to differences in legal entitlements. The focus on irregular migrants also allowed us to assess whether legal status had an impact on the attitudes of health professionals.

Chapter 8 reports on the national legal framework of access to health care and the related procedures for threecategories of migrants: migrants with legal residency permits (including refugees), asylum seekers, and irregular migrants. Due to particularities of the “Urgent Medical Aid” procedure, the focus of this chapter will be irregular migrants. The strengths and the weaknesses of this procedure are described from a legal perspective.

Chapter 9 is a case study of the development of fair health policies for migrants and ethnic minorities in Belgium. Based on the ETHEALTH project, this study describes the development of a collaborative strategy aimed at improving health equity for migrants and ethnic minorities, and the outcome of this strategy. To our knowledge, this is the first report in continental Europe on how to design a policy blueprint aimed at tackling ethnic inequalities in health. With this chapter, we contribute to the growing debate on changing policies for ethnicity and health, as highlighted recently by the COST-ADAPT memorandum [194]. Although there is a growing body of evidence that public health sciences could contribute to policy design, there have been few scientific studies that have provided advice on policy design in relation to ethnicity and health in continental Europe [195].

Note: Identifying race, ethnicity, and migrant status in official data and research in Belgium

The differences between self-reported and hetero-ascribed ethnic groups mean that there is a need for an identification method that combines the two approaches. Furthermore, there is currently no national or international consensus on how to collect data on ethnicity and race. This lack of international consensus is partially linked to the national contexts. Some European countries have a stronger tradition of interpreting ethnicity both in terms of self-identification and using multidimensional measurements, including country of birth, parents' country of birth, migration status, language(s) spoken, religion, citizenship, and nationality. The importance of nationally-specific contexts is illustrated by the examples of France and Belgium, where the states have declined to identify their citizens by either race or ethnicity. The complexity and multiplicity of national ethnic groups throughout Europe makes any attempt to draw cross-national comparisons extremely difficult [196].

One difficulty that is specific to Belgium concerns the different approaches to integration by Wallonia and Flanders. Whilst Flemish policymakers have acknowledged the existence of ethnic minorities in public policies, in Wallonia, socioeconomic status dominates policies and the ethnic dimension of inequality is neglected. The importation and translation of the "ethnic minority" category has also consequences for the scientific community: Flemish researchers tend to adopt the category "allochtoon"[foreigner] while French speaking researchers tend to reject the category "allochtone"[foreigner] [112,113].

Two approaches to collecting data on ethnicity exist: the subjective and the objective [34]. The subjective approach focuses on the internalisation of ethnicity by individuals, while the objective approach relies on the ascription of individuals to a certain ethnic group by the researchers based on certain objective grounds [34].

Four steps must be considered when collecting data on ethnicity.

Firstly, the researchers need to know why it is relevant to collect ethnicity in their project and clarify the hypotheses. Because ethnicity is sensitive data; the researcher must declare it to the Belgian Privacy Commission.

Secondly, the researchers must choose between using hetero-attributed and self-attributed definitions of ethnicity. In some countries, classifications of ethnic groups already exist, but these may not be suitable for the Belgian context. The use of self-attributed definitions may prevent the generalisation of the findings and may cause confusion for the respondents. Collecting data on ethnicity is quite uncommon and may be misunderstood.

Thirdly, the selection of variables must capture the complexity and the heterogeneity of the ethnic groups and should include: racism and discrimination, socioeconomic status, social class, personal or familial wealth, environmental exposure, insurance status, age, diet and nutrition, health beliefs and practices, educational level, language(s) spoken, religion, tribal affiliation, country of birth, parent's country of birth, length of time in the country of residence, and place of residence [9].

Fourthly, the analysis of the data must take into account the co-construction of ethnic and socioeconomic inequality [74,75]. If the research hypothesis involves the role of ethnicity, then socioeconomic status must be included in the analysis as it may confuse the relationship between ethnicity and health outcomes. Inclusion of the socioeconomic status in the analysis may decrease, eliminate, or sometimes even reverse inequalities [43].

Collecting data on ethnicity raises several questions. The researcher, for example, must question his/her own ethnic identity. How do we define ourselves? What are the main traits of our own ethnic identity? How and when does ethnic identity differ from the "majority" identity? How does this identity influence our lives? And more fundamentally – when does an individual stop being a migrant? When does an ethnic minority become an ethnic majority? Are minorities always in a disadvantaged position? Ethnic identity is a dynamic identity and varies according to many contextual influences.

The researcher must also decide which ethnic data to use. The concept of ethnicity raises the issue of racism and discrimination. Caution must be taken when presenting ethnic data to a wider audience, including policymakers. The collection of ethnic data may help to identify problems, but it may also serve to encourage extreme-right policies.

Ethnicity is just one variable among many. Data collected on ethnicity must not obfuscate the roles played by other social stratification factors. It is important to remember that the effects of such factors are cumulative. An elderly Moroccan with a low level of education and a permanent disability has a high risk profile for discrimination and social exclusion, but each stratification factor contributes to the pattern of exclusion. The effects are not simply added but are cumulated. The effects are reinforced by each other; this phenomenon is commonly called the intersectionality of risks [197-199].

Another precaution concerns the development of interventions targeting ethnic groups. Collecting data on ethnicity does not always have to lead to the development of ethnically-specific interventions. The main gap in collecting data on ethnicity is summarising the problems of individuals in an ethnic picture and “ethnifying” or “racialising” health problems for such groups.

Reference List

1. Whitehead M, Dahlgren G: **What can be done about inequalities in health?** *The Lancet* 1991, **338**: 1059-1063.
2. Dahlgren G, Whitehead M. European Strategies for tackling social inequities in health: Levelling up Part 2. 2007. Copenhagen, Word Health Organisation Press.
3. CSDH. Closing the gap in a generation: health equity through action on the social determinants of health. Final Report of the Commission on Social Determinants of Health. Edited by World Health Organisation. 2008. Geneva.
4. World Health Organisation. Health of Migrants. 2008. WHA 61.17.
5. MIGHEALTHNET. Information Network on Good Practice in Health Care for Migrants and Ethnic Minorities. MIGHEALTHNET . 2013.
6. Ford ME, Kelly PA: **Conceptualizing and categorizing race and ethnicity in health services research**. *Health Services Research* 2005, **40**: 1658-1675.
7. Dressler WW, Oths KS, Gravlee CC: **Race and ethnicity in public health research: Models to explain health disparities**. *Annual Review of Sociology* 2005, **34**:231-252.
8. Risch N, Burchard E, Ziv E, Tang H: **Categorization of humans in biomedical research: Genes, race and disease.** *Genome Biology* 2002, **3**: 2007.
9. Kaplan JB, Bennett T: **Use of race and ethnicity in biomedical publication**. *Jama-Journal of the American Medical Association* 2003, **289**: 2709-2716.
10. Lee C: "**Race**" **and** "**ethnicity**" **in biomedical research: How do scientists construct and explain differences in health?** *Social Science and Medicine* 2009, **68**: 1183-1190.
11. Culley L: **Transcending transculturalism? Race, ethnicity and health-care**. *Nursing Inquiry* 2006, **13**: 144-153.
12. Drevdahl DJ, Philips DA, Taylor JY: **Uncontested categories: The use of race and ethnicity variables in nursing research**. *Nursing Inquiry* 2006, **13**: 52-63.
13. Moscou S: **The conceptualization and operationalization of race and ethnicity by health services researchers**. *Nursing Inquiry* 2008, **15**: 94-105.
14. Lin SS, Kelsey JL: **Use of race and ethnicity in epidemiologic research: Concepts, methodological issues, and suggestions for research.** *Epidemiologic Reviews* 2000, 22: **187**-202.
15. Hunt LM, Megyesi MS: **The ambiguous meanings of the racial/ethnic categories routinely used in human genetics research**. *Social Science and Medicine* 2008, 66: 349-361.
16. Réa A, Tripier M: *Sociologie de l'immigration*, 2 edn. Paris: La Découverte; 2007.
17. United Nations SD. International Migrations. Edited by United Nations SD. 2013.
18. Goldin I, Cameron G, Balajaran M: *Exceptional people. How Migration Shaped our World and Will Define Our Future*. Princeton, NJ: Princeton University Press; 2011.
19. Morelli A. Histoire des étrangers et des émigrants en Belgique. 1992. Bruxelles, Editions Vie ouvrière.

20. Service Public Fédéral Economie P.M.E.Classes Moyennes et Energie. Population par nationalité, sexe, groupe et classe d'âges au 1er janvier 2008. 2011.
21. Perrin Ni. L'évolution du nombre d'étrangers en Belgique. 1-15. 2006. Louvain-la-Neuve, UCL - Groupe de démographie appliquée.
22. Portes A, Böröcz J: **Contemporary immigration : theorical perspectives on its determinants and modes of incorporation**. *International Migration Review* 1989, **23**: 606-630.
23. Gervield J, Franchet Y. Facteurs attractifs et répulsifs dans les flux migratoires internationaux. Edited by Gervield J, Franchet Y. 2001. Luxembourg, Office des Publications Officielles de la Commission Européenne.
24. United Nations. Convention relating to the status of Refugees. 1951.
25. UNHCR. Asylum-seekers. 2013.
26. Office des Etrangers. Mineur étranger non accompagné. 23-11-2012.
27. PICUM. L'accès aux soins de santé pour les migrants sans-papiers en Europe. Edited by PICUM. 1-200. 2002. Brussels, PICUM.
28. CLANDESTINO g. *Undocumented Migration: Counting the Uncountable. Data and Trends Across Europe. Final Report*. Edited by European Commission 2009.
29. United Nations CoHR. Specific groups and migrants. Migrant workers. E/CN.4/2000/82. 2000.
30. Pacolet J, Merckx S. Managed migration and the labour market : The Health Sector, the Belgian case. Edited by European Migration N. 2006. Katholieke Universiteit Leuven.
31. Wets J, de Bruyn T. La migration : une solution aux pénuries de personnel dans le secteur des soins et de la santé ? 2011. Fondation Roi Baudouin, KBS.
32. Council of the European Union. COUNCIL DIRECTIVE 2003/86/EC of 22 September 2003 on the right to family reunification. 2003/86/EC. 22-9-2003.
33. Lodewyckx I, Timmerman C, Wets J. Le regroupement familial en Belgique : les chiffres derrière le mythe. Edited by Fondation Roi Baudouin KBS. 2011. Fondation Roi Baudouin, KBS.
34. Hanquinet L, Vandezande V, Jacobs D, Swyngedouw M. Preparatory Study for Survey and Quantitative Research on Erhnic Minority Groups In Belgium. Edited by KUL-ISPO , ULB-GERME. 1-79. 2006. Brussels, Leuven, KUL-ISPO ; ULB-GERME.
35. Hutchinson J, Smith A: *Ethnicity*. Oxford: Oxford University Press; 1996.
36. Scheppers E, van Dongen E, Dekker J, Geertzen J, Dekker J: **Potential barriers to the use of health services among ethnic minorities: a review**. *Family Practice* 2006, **23**: 325-348.
37. Torrekens C: **Le pluralisme religieux en Belgique**. *Diversité Canadienne* 2005, **4:** 56-58.
38. European Commission. National Roma Integration Strategy. Belgium. Edited by European Commission. 6-2-2012.
39. Phalet K, Swyngedouw M: **National identities and representations of citizenship: A comparison of Turks, Moroccans and working-class Belgians in Brussels**. *Ethnicities* 2002, **2**: 5-30.

40. Smedley A, Smedley BD: **Race as biology is fiction, racism as a social problem is real : Anthropological and historical perspectives on the social construction of race**. *American Psychologist* 2005, **60**: 16-26.
41. Senior PA, Bhopal R: **Ethnicity as a variable in epidemiological research**. *British Medical Journal* 1994, **309**: 327-330.
42. Williams DR, Lavizzo-Mourey R, Warren RC: T**he concept of race and health status in America**. *Public Health Reports* 1994, **109**: 26-41.
43. Bhopal RS: *Ethnicity, race and health*. Oxford: 2007.
44. Krieger N: **A glossary for social epidemiology**. *Journal of Epidemiology and Community Health* 2001, **55**: 693-700.
45. National Research Council of the National Academies: *Measuring racial discrimination. Panels on Methods for Assessing Discrimination*. Washington, DC: The National Academies Press; 2004.
46. European Union Agency for Fundamental Rights. Inequalities and multiple discrimination in access to and quality of healthcare. 2013. Luxembourg, European Union Agency for Fundamental Rights.
47. Karlsen S. Ethnic inequalities in health: the impact of racism. 3. 2007. Race Equality Foundation. Better Health Briefing.
48. Karlsen S, Nazroo JY: **Fear of racism and health**. *Journal of Epidemiology and Community Health* 2004, **58**: 1017-1018.
49. McDonald JT, Kennedy S: **Insights into the 'healthy immigrant effect': Health status and health service use of immigrants to Canada.** *Social Science and Medicine* 2004, **59**: 1613-1627.
50. Deboosere P, Gadeyne S: **Adult migrant mortality advantage in Belgium: Evidence using census and register data**. *Population* 2005, **60**: 655-698.
51. Lorant V, Van Oyen H, Thomas I: **Contextual factors and immigrants'health status : double jeopardy**. *Health and Place* 2008, **14**: 678-692.
52. Vandenheede H, Deboosere P: Type 2 diabetes in Belgians of Turkish and Moroccan origin. *Arch Public Health* 2009, 67: 62-87.
53. Abouzeid M, Philpot B, Janus ED, Coates MJ, Dunbar JA: **Type 2 diabetes prevalence varies by socio-economic status within and between migrant groups: Analysis and implications for Australia.** *BMC Public Health* 2013, **13**.
54. Marshall J: **Diabetes in African Americans**. *Postgraduate Medical Journal* 2005, **81**: 734-740.
55. Gujral UP, Echouffo-Tcheugui JB, Narayan KV: Commentary: **Trends in prevalence of type 2 diabetes and prediabetes in South Asians-does it tell a story?** *International Journal of Epidemiology* 2011, **40**: 1554-1555.
56. Garduño-Diaz SD, Khokhar S: **Prevalence, risk factors and complications associated with type 2 diabetes in migrant South Asians.** *Diabetes/Metabolism Research and Reviews* 2012, **28**: 6-24.
57. Gholap N, Davies M, Patel K, Sattar N, Khunti K: **Type 2 diabetes and cardiovascular disease in South Asians.** *Primary Care Diabetes* 2011, **5**: 45-56.
58. Lamkaddem M, Stronks K, Gerritsen AAM, Devillé WLJM, Essink-Bot ML: **Health and health care utilization of refugees: Follow-up study among people with a residence permit in the Netherlands**. *Nederlands Tijdschrift voor Geneeskunde* 2013, **157**.

59. Stanojevich E, Veisse A: **Repères sur la santé des migrants**. *La Santé de l'Homme* 2007, **392**: 21-24.
60. Anson O: **Inequality in the access to preventive health care : the case of immigrants in Belgium**. *Archives of Public Health* 2001, **59**: 265-279.
61. Demarest S, Gisle L, Hesse E, Miermans PJ, Tafforeau J, Van der Heyden J. Enquête de Santé par Interview Belgique 2004. Edited by Institut Scientifique de la Santé Publique. 036, 1-78. 2006. Brussels, Institut Scientifique de la Santé Publique.
62. Lindert J: **Mental health, healthcare utilization of migrants in Europe**. *European Psychiatry* 2008, **23**: 14-20.
63. Uiters E: *Primary Health Care Use amont Ethnic Minorities in the Netherlands : a comparative study.* Nivel; 2007.
64. Uiters E, Devillé W, Foets M, Groenewegen PP: Use of healthcare services by ethnic minorities in the Netherlands : do the pattern differ ? In *Primary Health Care Use among Ethnic Minorities in the Netherlands : a comparative study.* Edited by Nivel. Utrecht: Uiters E; 2009:89-102.
65. Vandenheede H, Lammens L, Deboosere P, Gadeyne S, De Spiegelaere M: **Ethnic differences in diabetes-related mortality in the Brussels-Capital Region (2001-05): The role of socioeconomic position**. *International Journal of Public Health* 2011, **56**: 533-539.
66. Verbrugge A, Sasse A. Surveillance des infections sexuellement transmissibles dans la population générale en Belgique et dans les Régions . Edited by Institut Scientifique de la Santé Publique. 2011. Bruxelles, Institut Scientifique de la Santé Publiqu.
67. Sasse A, Verbrugge R, Van Beckhoven D. ÉPIDEMIOLOGIE DU SIDA ET DE L'INFECTION À VIH EN BELGIQUE. Situation au 31 décembre 2011. Edited by Institut Scientifique de Santé Publique WIV. 2012. Service maladies infectieuses au sein de la population générale.
68. FARES/VRGT. Registre belge de la tuberculose 2011. Edited by FARES/VRGT. 2013. Brussels.
69. Observatoire de la Santé et du Social de la Région de Bruxelles-Capitale. Les indicateurs de santé périnatale en Région de Bruxelles-Capitale 1998-2004. Edited by Observatoire de la Santé et du Social de la Région de Bruxelles-Capitale. 2005. Bruxelles, COCOM.
70. Buekens P, Masuy-Stroobant G, Delvaux T: **High birthweights among infants of North African immigrants in Belgium**. *American Journal of Public Health* 1998, **88**: 808-811.
71. Haelterman E, Qvist R, Barlow P, Alexander S: **Social deprivation and poor access to care as risk factors for severe pre-eclampsia**. *European Journal of Obstetrics Gynecology and Reproductive Biology* 2003, **111**: 25-32.
72. Levecque K, Lodewyckx I, Bracke P: P**sychological distress, depression and generalised anxiety in Turkish and Moroccan immigrants in Belgium. A general population study**. *Social Psychiatry and Psychiatric Epidemiology* 2008, 431-441.

73. Derluyn I, Broekaert E, Schuyten G: **Emotional and behavioural problems in migrant adolescents in Belgium.** *European Child and Adolescent Psychiatry* 2008, **17**: 54-62.
74. Lorant V, Bhopal RS: **Ethnicity, socio-economic status and health research: Insights from and implications of Charles Tilly's theory of durable inequality.** *Journal of Epidemiology and Community Health* 2011, **65**: 671-675.
75. Tilly C: *Durable Inequality*. Berkeley: University of California Press; 1998.
76. Pager D, Shepherd H: **The sociology of discrimination: Racial discrimination in employment, housing, credit, and consumer markets**. *Annual Review of Sociology* 2008, **34**: 181-209.
77. DeKeyser T, Delhez P, Zimmer H: **L'insertion des personnes étrangères sur le marché du travail**. *Revue Economique* 2012, 25-44.
78. La Veist T, Pollack K, Thorpe J, Fesahazion R, Gaskin D: P**lace, not race: Disparities dissipate in Southwest Baltimore when blacks and whites live under similar conditions**. *Health Affairs* 2011, **30**: 1880-1887.
79. Nielsen SS, Krasnik A: **Poorer self-perceived health among migrants and ethnic minorities versus the majority population in Europe: A systematic review.** *International Journal of Public Health* 2010, **55**: 357-371.
80. Chandola T: **Ethnic and class differences in health in relation to British South Asians: Using the new National Statistics Socio-Economic Classification.** *Social Science and Medicine* 2001, **52**: 1285-1296.
81. McElduff P, Edwards R, Burns JA, Young RJ, Heller R, Long B *et al.*: **Comparison of processes and intermediate outcomes between South Asian and European patients with diabetes in Blackburn, north-west England**. *Diabetic Medicine* 2005, **22**: 1226-1233.
82. Harrell SP: **A multidimensional conceptualization of racism-related stress: Implications for the well-being of people of color**. *American Journal of Orthopsychiatry* 2000, **70**: 42-57.
83. Becares L, Stafford M, Nazroo J: **Fear of racism, employment and expected organizational racism: Their association with health.** *European Journal of Public Health* 2009, **19**: 504-510.
84. Perry BL, Harp KLH, Oser CB: **Racial and gender discrimination in the stress process: Implications for african american women's health and well-being.** *Sociological Perspectives* 2013, **56**: 25-48.
85. CSDH. Equity, social determinants and public health programmes. Edited by Blas E, Sivasankara Kurup A. 2010. World Health Organisation.
86. United Nations. Universal Declaration of Human Rights. 10-12-1948.
87. Union Européenne. Charte des Droits Fondamentaux. 364/01. 7-12-2000.
88. Council of the European Union. Council Directive 2004/58/EC of 29 April 2004 on the right of citizens of the Union and their family members to move and reside freely within the territory of the Member States. 2004/58/EC. 29-4-2004.
89. Council of the European Union. Council Directive 2003/86/EC of 22 September 2003 on the right to family reunification. 2003.
90. Council of the European Union. Council Directive 2003/109/EC of 25 November 2003 concerning the status of third-country nationals who are long-term residents. 2003/109/EC. 25-11-2003.

91. Council of the European Union. Council Directive 2001/55/EC of 20 July 2001 on minimum standards for giving temporary protection in the event of a mass influx of displaced persons and on measures promoting a balance of efforts between Member States in receiving such persons and bearing the consequences thereof. 2001/55/EC. 20-7-2001.
92. Council of the European Union. Council Directive 2003/9/EC of 27 January 2003 laying down minimum standards for the reception of asylum seekers. 2003/9/EC. 27-1-2003.
93. Council of the European Union. Council Directive 2004/83/EC of 29 April 2004 on minimum standards for the qualification and status of third country nationals or stateless persons as refugees or as persons who otherwise need international protection and the content of the protection granted. 2004/83/EC. 29-4-2004.
94. Council of the European Union. Council Directive 2004/81/EC of 29 April 2004 on the residence permit issued to third-country nationals who are victims of trafficking in human beings or who have been the subjects of an action to facilitate illegal immigration, who cooperate with the competent authorities. 2004/81/EC. 29-4-2004.
95. Migrant Friendly Hospitals Task-Force. Déclaration d'Amsterdam. Vers des hôpitaux adaptés aux besoins des migrants dans une Europe de la diversité ethnique et culturelle. 2004.
96. Conseil de l'Europe. Recommendation Rec(2006)18 of the Committee of Ministers to member states on health services in a multicultural society. Rec(2006)18. 8-11-2006.
97. NRCEMH. Checking for Change. Summary of suggestions for "How to" deliver targets and indicators for Race Equality in Health. NHS Scotland. 2008.
98. Office Fédéral de la Santé Publique. Population migrante: prévention et promotion de la santé. Guide pour la planification et la mise en oeuvre de projets. Edited by Office fédéral de la santé publique (OFSP). 1-56. 2011.
99. Kirmayer LJ: Rethinking cultural competence. *Transcultural Psychiatry* 2012, 49: 149-164.
100. Seeleman C, Suurmond J, Stronks K: **Cultural competence: A conceptual framework for teaching and learning**. *Medical Education* 2009, **43**: 229-237.
101. Brach C, Fraser I: **Can Cultural Competency Reduce Racial And Ethnic Health Disparities? A Review And Conceptual model**. *Medical Care Research and Reviex* 2000, **57**: 181-217.
102. Price EG, Beach MC, Gary TL, Robinson KA, Gozu A, Palacio A *et al.*: **A systematic review of the methodological rigor of studies evaluating cultural competence training of health professionals**. *Academic Medicine* 2005, **80**: 578-586.
103. Cross T, Bazron B, Dennis K, Isaacs MR. Towards a culturally competent system of care. Edited by CASSP. 1989. Georgetown University Child Development Center.
104. Beach MC, Price EG, Gary TL, Robinson KA, Gozu A, Palacio A *et al.*: **Cultural competence: A systematic review of health care provider educational interventions**. *Medical Care* 2005, **43**: 356-373.

105. Gozu A, Beach MC, Price EG, Gary TL, Robinson K, Palacio A *et al.*: **Self-administered instruments to measure cultural competence of health professionals: A systematic review**. *Teaching and Learning in Medicine* 2007, **19**: 180-190.
106. Betancourt JR, Green AR, Carrillo JE, Ananeh-Firempong II O: **Defining cultural competence: A practical framework for addressing racial/ethnic disparities in health and health care.** *Public Health Reports* 2003, **118**: 293-302.
107. Beach MC, Cooper LA, Robinson KA, Price EG, Gary TL, Jenckes MW *et al.*: Strategies for improving minority healthcare quality. *Evidence report/technology assessment (Summary)* 2004, 1-8.
108. Ståhl T, Wismar M, Ollila E, Lahntinen E, Kimmo L: *Health in All Policies. Prospects and potentials*. Brussels: European Observatory on Health Systems and Health Policies; 2006.
109. Lorant V, Bhopal RS: **Comparing policies to tackle ethnic inequalities in health: Belgium 1 Scotland 4.** *European Journal of Public Health* 2011, **21:** 235-240.
110. Assises de l'Interculturalité. Rapport final. 2010.
111. Tackling Health Inequalities in Belgium TAHIB. L'inégalité sociale en matière de santé reste tenace en Belgique. 2010. Fondation Roi Baudouin.
112. Jacobs D, Rea A: **"Allochthones" in the Netherlands and Belgium**. *International Migration* 2012, **50**: 42-57.
113. Jabobs D, Réa A: **Construction et importation des classements ethniques. Allochtones et immigrés aux Pays-Bas et en Belgique.** *Revue européenne des migrations internationales* 2005, **21**: 35-59.
114. Office of Minority Health. National Culturally and Linguistically Appropriate Services. Edited by US Deparment of Health. 2002.
115. Mostow C, Crosson J, Gordon S, Chapman S, Gonzalez P, Hardt E *et al.*: **Treating and precepting with RESPECT: a relational model addressing race, ethnicity, and culture in medical training**. *Journal of General Internal Medicine* 2010, **25** Suppl 2: S146-S154.
116. Campinha-Bacote J: **The process of cultural competence in the delivery of healthcare services: A model of care**. *Journal of Transcultural Nursing* 2002, 13: 181-184.
117. Jirwe M, Gerrish K, Keeney S, Emami A: **Identifying the core components of cultural competence: Findings from a Delphi study**. *Journal of Clinical Nursing* 2009, 18: 2622-2634.
118. Leininger MM, McFarland MR: *Transcultural nursing: Concepts, theories, research and practice*. New York Ny: MacGraw Hill Companies; 2002.
119. Mcfarland MM, Eipperle MK: **Culture care theory: A proposed practice theory guide for nurse practitioners in primary care settings**. *Contemporary Nurse* 2008, **28**: 48-63.
120. Papadopoulos I, Lees S: **Developing culturally competent researchers**. *Journal of Advanced Nursing* 2002, **37**: 258-264.
121. Purnell L: **The Purnell Model for Cultural Competence**. *Journal of Transcultural Nursing* 2002, **13**: 193-196.

122. Perloff RM, Bonder B, Ray GB, Ray EB, Siminoff LA: **Doctor-patient communication, cultural competence, and minority health: Theoretical and empirical perspectives**. *American Behavioral Scientist* 2006, **49**: 835-852.
123. O'Connell MB, Korner EJ, Rickles NM, Sias JJ: C**ultural competence in health care and its implications for pharmacy: Part 1. Overview of key concepts in multicultural health care.** *Pharmacotherapy* 2007, **27**: 1062-1079.
124. O'Shaughnessy DF, Tilki M: **Cultural competency in physiotherapy: a model for training.** *Physiotherapy* 2007, **93**: 69-77.
125. Qureshi A, Collazos F, Ramos M, Casas M: **Cultural competency training in psychiatry.** *Euopeanr Psychiatry* 2008, **23** Suppl 1: 49-58.
126. Kreuter MW, Lukwago SN, Bucholtz RD, Clark EM, Sanders-Thompson V: **Achieving cultural appropriateness in health promotion programs: targeted and tailored approaches**. *Health Education and Behaviours* 2003, **30**: 133-146.
127. Kim-Godwin YS, Clarke PN, Barton L: **A model for the delivery of culturally competent community care**. *Journal of Advanced Nursing* 2001, **35**: 918-925.
128. Bischoff A. Caring for migrant and minority patients in European hospitals. A review of effective interventions. Edited by Swiss Forum for Migration and Populations studies. 2003. Basel, Swiss Forum for Migration and Populations studies.
129. Karl-Trummer U, Krajic K: Migrant Friendlly Hospitals: Organisations Learn Sensitivity or Differences. In *Migration and Health: Difference sensitivity from an organisation perspective*. Edited by Bjorgren Cuadra C, Cattacin S. Malmö: Malmö University; 2007:42-64.
130. Hawthorne K, Robles Y, Cannings-John R, Edwards AGK: **Culturally appropriate health education for type 2 diabetes mellitus in ethnic minority groups.** *Cochrane Database of Systematic Reviews 2008* 2008.
131. Hostetter M, Libion F: **Prévention du diabète de type II dans la population à risque, marocaine immigréede deuxième génération, du quartier des Marolles.** *Santé Conjuguée* 2005, 11-17.
132. Bailey EJ, Kruske SG, Morris PS, Cates CJ, Chang AB: **Culture-specific programs for children and adults from minority groups who have asthma**. *Cochrane Database of Systematic Reviews 2008* 2008.
133. Janzyk V. **Religion, culture et SIDA**. Education Santé [215]. 2006.
134. Collins B: *Cultural Competency Toolkit : good practices in ethnic minorities mental healthcare.* London: 2007.
135. Guillaume MJ. Soignants et Musulmans : duel ou duo ? Cultures muslmanes des soignés et pluralisme des soignants : un défi pour les équipes soignantes. 1-119. 2005. Bruxelles, Centre Chrétien pour les relations avec l'Islam.
136. Kreps GL: **Communication and racial inequities in health car**e. *American Behavioral Scientist* 2006, **49**: 760-774.
137. Green AR, Ngo-Metzger Q, Legedza ATR, Massagli MP, Phillips RS, Iezzoni LI: **Interpreter services, language concordance, and health care quality: Experiences of Asian Americans with limited english proficiency**. *Journal of General Internal Medicine* 2005, **20**: 1050-1056.

138. Schouten BC, Meeuwesen L, Harmsen HAM: **The impact of an intervention in intercultural communication on doctor-patient interaction in The Netherlands.** *Patient Education and Counseling* 2005, **58**: 288-295.
139. Verrept H: Intercultural mediation: an answer to health care disparities? In *Crossing borders in Community Interpreting: Definitions and Dilemnas*. Edited by Valero-Garcés C, Martin A. Amsterdam/Philadelphia: John Benjamins Publishing Company; 2008:187-201.
140. Nierkens V, Krumeich A, di Ridder R, Van Dongen M: **The future of intercultural mediation in Belgium.** *Patient Education and Counseling* 2002, **46**: 253-259.
141. Service Publique Fédéral Santé Publique Environnement Sécurité de la Chaine Alimentaire. Cellule de Médiation Interculturelle. 2-2-2011.
142. La Veist T, Nuru-Jeter A: **Is doctor-patient race concordance associated with greater satisfaction with care ?** *Journal of Health and Social Behaviour* 2002, **43**: 296-306.
143. Ngui E, Flores G: **Satisfaction with care and ease of using health care service among parents of children with special health care needs : the roles of race/ethnicity, insurance, language, and adequancy of family-centered care.** *Pediatrics* 2006, **117**: 1184-1196.
144. Stevens G, Shi L, Cooper L: **Patient-provider racial and ethnic concordance and parent reports of the primary care experiences of children**. *Annals of Family Medecine* 2003, **1**: 105-112.
145. Stevens G, Mistry R, Zuckerman B, Halfon N: T**he patient-provider relationship : does race/ethnicity concordance or discordance influence parent reports of the receipt of high quality basic pediatric preventive services ?** *Journal of Urban Health* 2005, **82**: 560-574.
146. Chang AB, Taylor B, Masters IB, Laifoo Y, Brown ADH: **Indigenous healthcare worker involvement for Indigenous adults and children with asthma**. *Cochrane Database of Systematic Reviews 2007* 2007.
147. McGinnis KA, Schulz R, Stone RA, Klinger J, Mercurio R: **Concordance of race or ethnicity of interventionists and caregivers of dementia patients: Relationship to attrition and treatment outcomes in the REACH study.** *Gerontologist* 2006, **46**: 449-455.
148. Sohler NL, Fitzpatrick LK, Lindsay RG, Anastos K, Cunningham CO: **Does Patient-Provider Racial/Ethnic Concordance Influence Ratings of Trust in Peaople with HIV Infection ?** *Aids and Behavior* 2007, **11**: 884-896.
149. La Veist T, Nuru-Jeter A, Jones K: **The association of doctor-race concordance with health services utilization.** *Journal of Health Policy* 2009, **24**: 312-323.
150. Saha S, Komaromy M, Koepsell TD, Bindman AB: **Patient-physician racial concordance and the perceived quality and use of health care**. *Archives of Internal Medicine* 1999, **159**: 997-1004.
151. Cooper-Patrick L, Gallo J, Gonzales J, Thi Vu H, Powe N, Nelson C *et al.*: **Race, gender and partnership in the patient-physician relationship**. *JAMA* 1999, **282**: 583-589.
152. Ferguson WJ, Candib LM: **Culture, language, and the doctor-patient relationship**. *Family Medicine* 2002, **34**: 353-361.

153. Lopez L, Vranceanu AM, Cohen AP, Betancourt J, Weissman JS: P**ersonal characteristics associated with resident physicians' self perceptions of preparedness to deliver cross-cultural care.** *Journal of General Internal Medicine* 2008, **23**: 1953-1958.

154. Bussey-Jones J, Genao I, St.George DM, Corbie-Smith G**: Knowledge of cultural competence among third-year medical students.** *Journal of the National Medical Association* 2005, **97**: 1272-1276.

155. Paez KA, Allen JK, Beach MC, Carson KA, Cooper LA: **Physician cultural competence and patient ratings of the patient-physician relationship**. *Journal of General Internal Medicine* 2009, **24**: 495-498.

156. Greer JA, Park ER, Green AR, Betancourt JR, Weissman JS: **Primary care resident perceived preparedness to deliver cross-cultural care: An examination of training and specialty differences**. *Journal of General Internal Medicine* 2007, **22**: 1107-1113.

157. Johnstone MJ, Kanitsaki O: **The politics of resistance to workplace cultural diversity education for health service providers: An Australian study**. *Race Ethnicity and Education* 2008, **11**: 133-154.

158. Weissman JS, Betancourt J, Campbell EG, Park ER, Kim M, Clarridge B *et al.*: **Resident physicians' preparedness to provide cross-cultural care**. *Journal of the American Medical Association* 2005, **294**: 1058-1067.

159. Yamada AM, Brekke JS: **Addressing mental health disparities through clinical competence not just cultural competence: The need for assessment of sociocultural issues in the delivery of evidence-based psychosocial rehabilitation services**. *Clinical Psychology Review* 2008, **28**: 1386-1399.

160. Turrini A, Cristofoli D, Frosini F, Nasi G: **Networking literature about determinants of network effectiveness**. *Public Administration* 2010, **88**: 528-550.

161. Dogra N, Betancourt JR, Park ER, Sprague-Martinez L: T**he relationship between drivers and policy in the implementation of cultural competency training in health care**. *Journal of the National Medical Association* 2009, **101**: 127-133.

162. Pampalon R, Hamel D, De Koninck M, Disant MJ: **Perception of place and health: Differences between neighbourhoods in the Québec City region**. *Social Science and Medicine* 2007, **65**: 95-111.

163. Chrisman NJ: **Extending cultural competence through systems change: Academic, hospital, and community partnerships.** *Journal of Transcultural Nursing* 2007, **18**: 68S-76S.

164. Jones ME, Bond ML, Mancini ME: **Developing a culturally competent work force: An opportunity for collaboration**. *Journal of Professional Nursing* 1998, **14**: 280-287.

165. Bhui K, Warfa N, Edonya P, McKenzie K, Bhugra D: **Cultural competence in mental health care: A review of model evaluations**. *BMC Health Services Research* 2007, **7.**

166. Chin MH, Walters AE, Cook SC, Huang ES: **Interventions to reduce racial and ethnic disparities in health care**. *Medical Care Research and Review* 2007, **64**: 7S-28S.

167. Browne AJ, Varcoe CM, Wong ST, Smye VL, Lavoie J, Littlejohn D *et al.*: C**losing the health equity gap: Evidence-based strategies for primary health care organizations**. *International Journal for Equity in Health* 2012, **11**.
168. Saxena S, Misra T, Car J, Netuveli G, Smith R, Majeed A: **Systematic review of primary healthcare interventions to improve diabetes outcomes in minority ethnic groups**. *Journal of Ambulatory Care Management* 2007, **30**: 218-230.
169. Smedley A, Stith Y, Nelson A. Unequal treatment: Confronting Racial and Ethnic Disparities in Health Care. Edited by Institute of Medicine. 2002. Washington, DC, Institute of Medicine.
170. Renzaho AMN, Romios P, Crock C, Sønderlund AL: **The effectiveness of cultural competence programs in ethnic minority patientcentered health care- a systematic review of the literature.** *International Journal for Quality in Health Care* 2013, **25**: 261-269.
171. Culica D, Walton J, Harker K, Prezio E: **Effectiveness of a community health worker as sole diabetes educator: comparison of CoDE with similar culturally appropriate interventions**. *Journal of Health Care for the Poor and Underserved* 2008, **19**: 1076-1095.
172. Samuel-Hodges C, Keyserling T, France R, Ingram A, Johnston L, Pullen Davis L *et al.*: **Church-based Diabetes Self-management Education Program for African Americans With Type 2 Diabetes**. *Preventing Chronic Diseases* 2006, **3**: A93.
173. Ho TM: Hypertension management: **Lifestyle interventions in a transcultural context**. *Journal of Renal Care* 2009, **35**: 176-184.
174. Scisney-Matlock M, Bosworth HB, Giger JN, Strickland OL, Van Harrison R, Coverson D *et al.*: S**trategies for implementing and sustaining therapeutic lifestyle changes as part of hypertension management in African Americans.** *Postgraduate Medicine* 2009, **121**: 147-159.
175. Gany F, Leng J, Shapiro E, Abramson D, Motola I, Shield DC *et al.*: **Patient satisfaction with different interpreting methods: A randomized controlled trial.** *Journal of General Internal Medicine* 2007, **22**: 312-318.
176. Hudelson P, Vilpert S: **Overcoming language barriers with foreign-language speaking patients: A survey to investigate intra-hospital variation in attitudes and practices**. *BMC Health Services Research* 2009, **9**.
177. Vissandjé B, Dupére S: **La communication interculturelle en contexte clinique: Une question de partenariat**. *Canadian Journal of Nursing Research* 2000, **32**: 99-113.
178. Bischoff A, Denhaerynck K: **What do language barriers cost? An exploratory study among asylum seekers in Switzerland**. *BMC Health Service Research* 2010, **10**.
179. Clegg J, Hanson Smart D, Hyo-Jung Bezemer D, Freeman J. Final Evaluation Report. 2011. Seattle, Pacific Hospital Preservation & Development Authority.
180. Ault-Brutus AA: **Changes in racial-ethnic disparities in use and adequacy of mental health care in the United States, 1990-2003**. *Psychiatric Services* 2012, **63**: 531-540.
181. Glaesmer H, Wittig U, Braehler E, Martin A, Mewes R, Rief W: **Health care utilization among first and second generation immigrants and native-born**

Germans: **A population-based study in Germany.** *International Journal of Public Health* 2011, **56**: 541-548.

182. Nielsen SS, Hempler NF, Waldorff FB, Kreiner S, Krasnik A: **Is there equity in use of healthcare services among immigrants, their descendents, and ethnic Danes?** *Scandinavian Journal of Public Health* 2012, **40**: 260-270.
183. Schoenmaker NJ, Tromp WF, Van Der Lee JH, Adams B, Bouts AH, Collard L *et al.*: **Disparities in dialysis treatment and outcomes for Dutch and Belgian children with immigrant parents.** *Pediatric Nephrology* 2012, **27**: 1369-1379.
184. Hsieh E: **Conflicts in how interpreters manage their roles in provider-patient interactions**. *Social Science and Medicine* 2006, **62**: 721-730.
185. Aranguri C, Davidson B, Ramirez R: **Patterns of communication through interpreters: A detailed sociolinguistic analysis**. *Journal of General Internal Medicine* 2006, **21**: 623-629.
186. Flores G: **Providing culturally competent pediatric care : integrating pediatricians, institutions, families and communities into the process**. *Journal of Pediatrics* 2003, **143**: 1-2.
187. Meghani SH, Brooks JM, Gipson-Jones T, Waite R, Whitfield-Harris L, Deatrick JA: **Patient-provider race-concordance : does it matter in improving minority patients'health outcomes ?** *Ethnicity and Health* 2008, 1-23.
188. Kumagai AK, Lypson ML: **Beyond cultural competence: Critical consciousness, social justice, and multicultural education**. *Academic Medicine* 2009, **84**: 782-787.
189. Ridley CR, Baker DM, Hill CL: **Critical issues concerning cultural competence.** *The Counseling Psychologist* 2001, **29**: 822-832.
190. Cameron ID, Fairhall N, Langron C, Lockwood K, Monaghan N, Aggar C *et al.*: **A multifactorial interdisciplinary intervention reduces frailty in older people: randomized trial**. *BMC Med* 2013, **11**: 65.
191. Yoo JW, Seol H, Kim SJ, Yang JM, Ryu WS, Min TD *et al.*: E*ffects of hospitalist-directed interdisciplinary medicine floor service on hospital outcomes for seniors with acute medical illness. Geriatric and Gerontology International* 2013.
192. De Maesschalck S: *Linguistic and cultural diversity in the consultation room: a tango between physicians and their ethnic minority patients.* Ghent University; 2012. Thesis submittec in fulfilment of the requirements for the degree of Doctor in Medical Sciences.
193. DiMaggio P, Garip F: **Network Effects and Social Inequality**. *Annual Reviews of Sociology* 2012, **38**: 93-118.
194. Ingleby D. Memorandum of Understanding. For the implementation of a European Concerted Research Action designated as COST Action IS1103 ADAPTING EUROPEAN HEALTH SYSTEMS TO DIVERSITY (ADAPT). Edited by Ingleby D. 2011. Brussels, COST Network.
195. Sarría-Santamera A, Schoten E, Coenen D, Gunning L, Pauwels A, Allander S *et al.*. European Science Advising Network. A Framework for Science Advice on Health: Principles and Outcomes. 2011. Brussels, EuSANH.

196. Aspinall PJ: **Approaches to developing an improved cross-national understanding of concepts and terms relating to ethnicity and race.** *International Sociology* 2007, **22**: 41-70.
197. Malmusi D, Borrell C, Benach J: **Migration-related health inequalities: Showing the complex interactions between gender, social class and place of origin**. *Social Science and Medicine* 2010, **71**: 1610-1619.
198. Veenstra G: **Race, gender, class, and sexual orientation: Intersecting axes of inequality and self-rated health in Canada**. *International Journal for Equity in Health* 2011, **10**.
199. Vissandjee B, Hyman I, Spitzer DL, Apale A, Kamrun N: **Integration, clarification, substantiation: Sex, gender, ethnicity and migration as social determinants of women's health**. *Journal of International Women's Studies* 2007, **8**: 32-48.

FIRST PART

Contribution of Cultural Competence to the Reduction of Health Inequalities and to the Improvement of Quality of Care

CHAPTER 1: Contribution of cultural competence to the reduction of health inequalities

This chapter 1 presents an equity-oriented systematic literature review. Within this review, we aimed to assess whether culturally competent interventions in type 2 diabetes mellitus management converge with the recommendations to reduce health inequalities. In particular, we analyse whether the model of culturally competent interventions, its data design, its data collection, and its data analysis procedures implement the recommendations to reduce health inequalities.

- Dauvrin M, Lorant V. Culturally competent interventions in type 2 diabetes mellitus management. An equity oriented literature review. *Ethnicity and Health.* **In Press**

The article has been submitted Ethnicity and Health on February 8, 2013. The article is currently under revision (first revision sent on June 13, second revision sent on September 19). The paper has been accepted for publication on October, 16.

Other related publications

- Lorant V, Dauvrin M. Ethnicity and socioeconomic status as determinants of health. In D. Ingleby, A. Krasnik, V.
- Lorant & O. Razum (Eds.) Health Inequalities and Risk Factors among Migrants and Ethnic Minorities (COST Series on Health and Diversity - Vol 1).Antwerpen: Garant. 2012.

Culturally competent interventions in the management of Type 2 diabetes mellitus: an equity-oriented literature review

Objectives

Although culturally competent (CC) interventions aim to reduce health inequalities for ethnic minorities, they have been criticized on the grounds that they increase prejudice and stereotyping. It remains unclear whether CC interventions really can reduce health inequalities among ethnic minorities. The purpose of this review is to assess whether CC interventions in the management of Type 2 diabetes mellitus match the recommendations to reduce health inequalities.

Design

We identified CC interventions relating to Type 2 diabetes mellitus among ethnic minority patients in the literature published between 2005 and 2011. Data was analyzed according to an equity-oriented framework. Each study was given a score based on its congruence with the reduction of health inequalities amongst ethnic minorities.

Results

We reviewed 137 papers and found 61 studies that met the inclusion criteria. Most interventions focused on the individual level and the modification of patients' health behavior. Very few addressed the socio-political level. A minority of the studies acknowledged the role of socio-economic deprivation in ethnic health inequalities. Half of the studies contained no information about the socio-economic status of the patients. The patients receiving the interventions were socio-economically deprived. Only 10 studies compared ethnic minority groups to majority groups. Thirty-three studies had a very low average congruence score. The highest score of congruence was achieved by one study.

Conclusion

Overall, CC interventions addressing Type 2 diabetes mellitus are not congruent with the reduction of ethnic health inequalities. The future of CC interventions may involve going one step further and going back to basic tenets of cultural competence: the integration of difference, whatever its source, into the delivery of fair health care for patients.

Keywords Cultural competence, Type 2 diabetes mellitus, Socio-economic status, Equity, Ethnic minorities, Systematic review

Introduction

Ethnicity has been acknowledged as an important social determinant of health status that should be considered when making policies to tackle health inequalities (CSDH 2008). Worldwide, ethnic minorities face a higher prevalence of Type 2 diabetes mellitus (T2DM) than the majority populations: South Asians compared to white British (Fischbacher et al. 2009), African Americans compared to white Americans (Marshall 2005), or Turks and Moroccans compared to Belgians (Vandenheede and Deboosere 2009). Ethnic minorities are more at risk of poor glycemic control, leading to higher rates of severe complications including amputations, retinopathy, neuropathy, and renal trouble (Lanting et al. 2005). They have also higher admission rates in accident and emergency departments with non-controlled diabetes (Cook et al. 2006). Several obstacles, including linguistic and cultural barriers, prevent ethnic minorities from accessing appropriate health care services (Scheppers et al. 2006). Moreover, although some ethnic minorities have been present for years in the host country, they may still face barriers to accessing health care services (Nierkens et al. 2002).

These disparities have led to attention being paid to culturally competent (CC) approaches in health care. Betancourt defines a culturally competent health system "*as one that acknowledges and incorporates—at all levels—the importance of culture, assessment of cross-cultural relations, vigilance toward the dynamics that result from cultural differences, expansion of cultural knowledge, and adaptation of services to meet culturally unique needs*" (from Betancourt *et al*. 2003, p 294). CC interventions help to improve the quality of the care delivered to ethnic minorities and reduce inequality (Brach and Fraserirector 2000; Kirmayer 2012). This also implies the acknowledgement of the prejudices and discrimination ethnic minorities face (Kim-Godwin, Clarke, and Barton 2001). Ethnic health inequalities are not only due to inadequate language proficiency or to cultural practices, but also to socio-economic factors and environmental hazards (Betancourt et al. 2003).

However, although CC interventions have showed promising results, it remains unclear whether these interventions lead to reductions in health inequalities (Carpenter-Song, Nordquest Schwallie, and Longhofer 2007). CC training programs may actually increase prejudice and reinforce stereotypes among health professionals (Paluck and Green 2009; Seeleman, Suurmond, and Stronks 2009). Racial concordance between patients and health professionals has yielded inconsistent results, especially when the health problem was grounded in cultural norms or values (Chang et al. 2010; LaVeist et al. 2011).

Some critics, moreover, question the importance accorded to other health determinants in CC interventions, such as socio-economic factors or local context (Kumagai and Lypson 2009; Ridley, Baker, and Hill 2001). Indeed, ethnic minorities often experience lower socio-economic status (SES) than the rest of the population. Lower levels of education, higher rates of unemployment, and lower incomes are more common among ethnic minorities than among majority groups (Pager and Shepherd 2008). Furthermore, ethnic minorities often live in deprived neighborhoods with poor housing conditions, higher environmental hazards, low food availability, and inadequate public services such as health and social services (Lorant, Van Oyen, and Thomas 2008). These factors will strongly affect intervention outcomes (LaVeist et al. 2011). Despite a growing interest in tackling ethnic health inequalities, it is unclear how CC interventions incorporate this complex set of vulnerability factors into their design, measurement, and analysis and whether they really can reduce health inequalities among immigrants and ethnic minorities.

In 2010, based on previous studies on health inequalities and expert opinions, the Commission of the Social Determinants of Health published a synthesis of recommendations for reducing health inequalities and improving equity in health. The reduction of health inequalities requires the development of complex interventions (Blas and Sivasankara Kurup 2010) encompassing individual, organizational, and macro levels. The interactions between the various determinants of health need to be considered, such as socio-economic status and ethnicity, and their impact on the different health outcomes (Blas and Sivasankara Kurup 2010; CSDH 2008).

Within this equity-oriented systematic literature review, our aim was to assess whether CC interventions in T2DM management match the recommendations for reducing health inequalities. In particular, we analyzed whether the model of culturally competent interventions and its procedures for data design, collection, and analysis implement the recommendations for reducing health inequalities.

Methods

Search strategy and data extraction

We conducted a theory-based systematic literature review to identify CC interventions for ethnic minority patients with T2DM (Snilstveit, Oliver, and Vojtkova 2012). Our literature review was defined as an equity-oriented review as its main objective was to identify the extent of the reduction of health inequalities according to the equity-oriented framework for literature review developed by (Tugwell et al. 2010). From November 2011 to December 2011, we searched: (1) MEDLINE; (2) IsiWeb of Sciences; (3) DARE; (4) Scopus, and (5) Dopher. The initial PICO search strategy was developed for MEDLINE (Waddington et al., 2012). This strategy was then tailored to each database to maximize sensitivity. The main MESH terms were “cultural competence” AND “ethnic minority” AND “type 2 diabetes mellitus”. We conducted additional searches in some journals and scanned the references of some key review articles that we had previously identified through our electronic searching. The data extraction procedure included general information on the studies such as characteristics of the study, participants, intervention, and setting and of the outcome data and results (Centre for Reviews and Dissemination 2009). The time period was between 2005 and 2011. In 2006, Beach et al. published one of the most important reviews on cultural competence to date. They reviewed the literature published between 1980 and 2003, defined cultural competence, and identified evidence of the effectiveness of culturally competent interventions. In 2007, Peek et al. published a systematic review focusing specifically on health disparities related to diabetes, based on the literature published between 1985 and 2006 (Peek, Cargill, and Huang 2007). By beginning our review at 2005, we tried to cover the gap between these two previous literature reviews.

The RefMan© software was used to store the citations and to track the abstracts. The extraction process focused mainly on study profiles in order to identify the extent of the reduction of health inequalities, as recommended by the *Tugwell* equity-oriented framework (Tugwell et al. 2010). Standardized review forms were developed in an Excel database in order to (1) identify the indicators of patients' SES and ethnic characteristics and how these were collected, (2) identify the CC components of the interventions, and (3) identify study characteristics and outcomes. The forms were based on the literature on CC (Betancourt et al. 2003; Brach and Fraserirector 2000; Kim-Godwin, Clarke, and Barton 2001), ethnicity (Bhopal 2007), and SES (Berkman and Kelly 2000; Galobardes et al. 2006; Galobardes et al. 2006).

We adopted the "lumper" perspective in selecting the interventions: we compared a broad range of interventions with a common goal (Waddington et al. 2012).

Review process

The review process was carried out by three reviewers (MD-WD-VL). Each reviewer first individually checked the abstract on the basis of the inclusion and exclusion criteria. The inclusion criteria were: interventions with a clear focus on T2DM; presence of at least one group of patients identified as members of an ethnic minority (in relation to the national context of ethnicity), and interventions in inpatient or outpatient settings. Three categories of exclusion criteria for the abstracts were identified: article-related exclusion criteria, patient-related exclusion criteria, and intervention-related exclusion criteria (see Figure 1 for details of exclusion criteria). At the end of the review process, each abstract was given a code: A (accepted), C (complementary checking needed), or R (rejected). Divergent coding was discussed and final decisions on acceptance were made after discussion. Full papers were retrieved and checked when the abstracts were allocated to categories A or C.

A common measure of outcomes was then chosen, in order to ensure greater comparability between the studies. Glycosylated hemoglobin was identified because it is a widely recommended clinical indicator of the follow-up and quality of diabetes care (American 2012) that may also reflect psychobehavioral changes such as better adherence to self-management activities.

Classification of culturally competent interventions

Each intervention was analyzed according to its degree of specificity. Some studies dealt with interventions that made use of cultural competence according to the definition used by Cross et al. (1989). Other interventions were based on an extended definition of cultural competence, according to which even generic interventions could be considered to be culturally competent if their final objective was the reduction of ethnic inequalities (Kirmayer 2012).

Six CC categories were identified: communication-related interventions (interpreters and intercultural mediators); ethnic/racial concordance between patients and health professionals (ethnic matching and racial matching); responsiveness-related components (cultural adaptations of content and cultural adaptations of methods); training of health professionals (diversity and behavioral); organizational components (e.g. diversity-oriented hiring programs), and interventions using members of the communities (e.g. *promotores*) (Betancourt et al. 2003; Brach and Fraserirector 2000; Kim-Godwin, Clarke, and Barton 2001).

Assessing equity: intervention model and defining disadvantage

We selected the *Tugwell* equity-oriented analytical framework (Tugwell et al. 2010) to review the studies from an equity perspective. This framework included 7 components: (1) developing an intervention model; (2) defining disadvantage; (3) deciding on appropriate study design(s); (4) identifying outcomes of interest; (5) process evaluation and understanding context; (6) analyzing and presenting data, and (7) judging applicability of results. Within this review, we focused on two steps: developing the intervention model and defining disadvantage.

Developing an intervention model aims to elucidate how the intervention is intended to work and how the mechanisms of inequality may affect the outcomes of the interventions. The mechanism was classified according to the WHO model of the Commission on Social Determinants of Health (here after CSDH model) (CSDH 2008). Three levels of access were distinguished: structural access (availability of services/transportation/organization), financial access (health insurance coverage/co-payment/state-funded health care), and personal access (acceptability/culture/language/attitudes/education/income) (Gold 1998).

The target groups concerned by the intervention were identified: the patient (including the patient-health professional interactions), the health professionals, and the health care organizations. The number of target groups was considered as a proxy to assess the degree of complexity of the intervention (Craig et al. 2008). The studies were screened for their measurement of disadvantage, using the PROGRESS indicators (Tugwell et al. 2010). These indicators are considered to be key axes of social stratification: Place of Residence, Race/ethnicity, Occupation, Gender, Religion, Education, Socio-economic status, and Social capital. Three complementary PROGRESS indicators were added: age, social support, and disability (Oliver et al. 2008). Income and health insurance status were used as proxies for SES, while marital status, familial bonds and other social relationships such as friendships were considered as proxies for social capital when the studies did not report a social capital measure (Shaw et al. 2007). Social support was divided into four categories: emotional support, instrumental support, appraisal support (support in decision-making), and informational support (Berkman and Kelly 2000). Defining disadvantage also took into account the target group of the intervention: the intervention was considered to be targeted if it included a sample restricted to disadvantaged groups or settings in which most people are disadvantaged. On the other hand, the intervention was considered to be universal if it addressed the entire population of a country/region without reference to whether individuals belonged to a specific disadvantaged group.

Congruence score with the reduction of health inequalities framework

An overall score of congruence with health inequalities reduction was computed as the sum of eight binary indicators, selected according to the literature on health inequalities (Keppel et al. 2005). These were: (1) existence of a theoretical hypothesis for the role of SES in the intervention (1=SES as a confounder, mediator, or moderator, 0=no hypothesis about the SES); (2) relevance of the socio-economic indicator for T2DM (1=for education, 0=otherwise); (3) multidimensional measurement of SES (1=for more than one indicator, 0=one indicator); (4) relevance of the additional socio-economic indicator (1=income/wealth, 0=otherwise); (5) comparison between groups with different SES (1=for comparison, 0=no comparison); (6) consideration of gender aspects in the statistical analysis (1=consideration of gender aspects, 0=none); (7) measures used to collect SES (1=gradient, 0=otherwise), and (8) inclusion of the SES in the statistical analysis (1=as mediator/moderator, 0=no inclusion/confounder). The congruence score with the reduction of health inequalities ranged from 0 to 8. Higher scores reflect a higher degree of congruence with the reduction of health inequalities framework in CC interventions.

Education was considered to be the most relevant indicator of socio-economic status as it applies to the entire population (contrary to employment which concerns only active adults). Furthermore, education, including literacy and numeracy, influences the self-management skills of the patients and is rarely affected by reverse causality (Cavanaugh et al. 2008; Cavanaugh et al. 2009; Shaw et al. 2007; Tang et al. 2008).

Results

Selection process and general data on studies

After reviewing 5180 abstracts and reading 137 papers, we ended up with 61 papers that met our inclusion criteria (Figure 1). The timing, objectives, and settings of these studies are shown in Table 1.

Figure 1 Review process of the literature search on culturally competent interventions relating to Type 2 diabetes mellitus published between 2005 and 2011

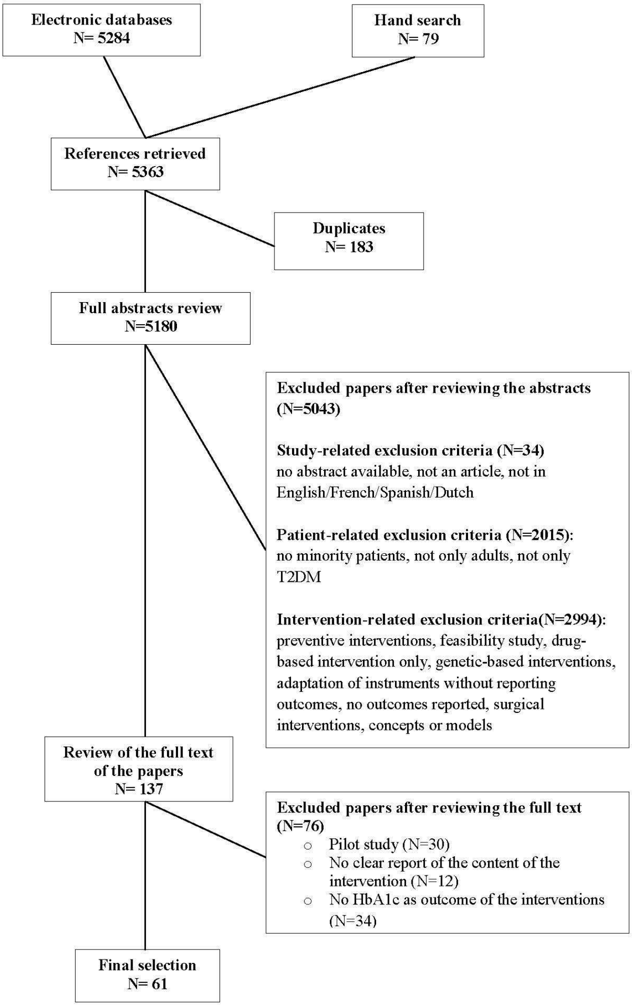


Table 1 Names of the authors, years of publication, content of the interventions, settings of the studies, and ethnic groups of patients in the 61 studies published between 2005 and 2011 included in the literature review

First Author	Year	Interventions	Setting	Groups of patients included
Agban, H	2008	Primary care diabetes annual review program: monitoring and planning of diabetes services, inclusion of guidelines on management of cardiovascular risk and T2DM	New Zealand	European/Maori/Pacific/Asian/Indian/other
Anderson-Loftin, W	2005	Four weekly classes in low-fat dietary strategies, five monthly peer-professional group discussions, and weekly telephone follow-up	South Carolina/USA	African Americans
Anderson, DR	2010	Telephonic disease management	Connecticut/USA	Black/White/Others
Anderson, MR	2005	Six 2-hour group sessions held weekly in community-based locations	Michigan/USA	African Americans
Babamoto, K	2009	Culturally acceptable intervention delivered by a community health worker: individual educational sessions, 10-week ADA education sessions, follow-up telephone calls, culturally appropriate educational materials	Los Angeles/USA	Hispanics

Table 1 (Continued)

First author	Year	Interventions	Setting	Groups of patients included
Beckham, S	2008	Community health workers	Hawai'i/USA	Asian/Pacific Islander ethnic background/Native Hawaiian ethnic background
Bellary, S	2008	Additional time with practice nurse and support from a link worker and a diabetes-specialist nurse	Coventry & Birmingham/UK	South Asians
Bravis, V	2010	Ramadan-focused education on weight and hypoglycemic episodes during Ramadan	Brent, London/UK	Muslims
Bray, P	2005	Nurse-led planned care visits using evidence-based clinical management, patient education, and support for self-management through a group visit structure, decision support tools for providers, and patient registry	North Carolina/USA	African Americans
Brown, S	2005 2007 2011	Eight weekly 2-hour educational sessions followed by support sessions	Starr County, Texas/USA	Mexican Americans

Table 1(Continued)

First author	Year	Interventions	Setting	Groups of patients included
Caruso, LB	2007	Targets for clinical measures & practice changes, "reports" for providers comparing their performance on the clinical measures with that of other providers in the practice and the practice averages; bulletin boards, pamphlets, reminder signs for patients	Boston/ USA	Black/White/Hispanics/Others
Culica, D	2008	Three 60-min individual education visits, focusing on diabetes knowledge & self-management skills, followed by 60-min quarterly assessment & case management visits	Dallas/USA	African Americans/Hispanics/Others
Curtis, J	2009	Standing orders for nurse case managers to adjust anti-hyperglycemic medications	Phoenix/USA	American Indians & Alaska Natives
Davidson, MB	2006	Nurse-directed care for patients with diabetes	USA	AfroAmerican/Latino/Caucasian/Asian
De Peralta, E	2005	Education class for patients with T2DM, including bilingual educators, food models, & education materials	Odessa, Texas/USA	Hispanics

Table 1 (Continued)

First author	Year	Interventions	Setting	Groups of patients included
Foster, GD	2009	Commercially available weight loss program	Temple/USA	African Americans
Gold, R	2008	Multidisciplinary diabetes self-management program + synchronizing regularly scheduled provider visits	Los Angeles/USA	Hispanics
Gutierrez, N	2011	Shared medical appointments	Texas/USA	Hispanics
Ingram, M	2007	*Promotora*-driven intervention	US-Mexico border	Mexican Americans
Istepanian, R SH	2009	Measure of blood glucose with a sensor that transmitted the readings to a mobile phone via a Bluetooth wireless link	London/UK	African-Caribbean/Caucasian/Indo-Asians/Other
Jameson, JP	2010	Pharmacist collaborative management	Grand Rapids, Michigan/USA	White/non-White
Joshi, R	2010	Culture-specific education provided by racially-concordant trained diabetes educators	Pinnacle, Pennsylvania/USA	African Americans/Hispanics
Joshu, CE	2007	Self-management education classes, support groups, individual follow-up, and monitoring by *promotores*	Laredo, Texas/USA	Hispanics

Table 1(Continued)

First author	Year	Interventions	Setting	Groups of patients included
Kattlemann, K	2009	Culturally adapted educational lessons based on the Medicine Wheel Model for Nutrition and usual dietary education	South Dakota/USA	Cheyenne River Sioux
Kenealy, TW	2010	Generic quality improvement process	Northland/New Zealand	Maori/non-Maori
Lee, K	2011	Physician-directed interdisciplinary team-based approaches, health information technology, decision support system, measurement and continuous improvement of quality and safety in health care delivery	Jacksonville/USA	African Americans /Caucasians/Hispanics/Filipino/Albanians/Asians
Levya, B	2011	Diabetes self-management education	Springfield/USA	Hispanics/non-Hispanics
Liebman, J	2007	Implementation of the CCM, diabetes education classes, exercise class, chronic disease self-management classes, community health workers, and individual consultations	Holyhoke, Massachusetts/USA	Latino
Lorig, K	2008	Spanish-language self-management diabetes program with monthly automated telephone reinforcement	San Francisco Bay/USA	Spanish-speaking

Table 1 (Continued)

First author	**Year**	**Interventions**	**Setting**	**Groups of patients included**
Lujan, J	2007	Eight weekly, 2-hour participative group classes, telephone follow-up	Texas-Mexico border	Mexican Americans
Magee, M	2011	Interactive group sessions focused on specific aspects of the ABCs of Diabetes	District of Columbia/USA	African Americans/ Black/Hispanics/Other
Mayes, PA	2010	Telecommunications with *promotoras* and a medical team of nurses and endocrinologists	Santa Clara county, California/USA	Hispanics
McCloskey, J	2011	*Promotoras*, grocery store tours, diabetes support groups, diabetes education in one-on-one sessions, physical activities and exercise instruction, smoking cessation classes, referrals to the Medication Assistance Program, health and social services	Hidalgo & Grant counties, New Mexico/USA	Hispanics/non-Hispanics
Melkus, G	2010	Culturally relevant primary-care nurse-led intervention in group diabetes self-management training and coping skills training	New England/ USA	Black American
Metgalchi, S	2008	Diabetes education classes	San Antonio, Texas/USA	Hispanics

Table 1 (Continued)

First author	Year	Interventions	Setting	Groups of patients included
Millet, C	2007	Pay-for-performance rewards	Wandsworth, London/UK	White British/Black Caribbean/Black Africans/Indians/Pakistani/Bangladeshi/ White Irish
Osborn, CY	2010	Didactic session activities, reading materials, videos, role plays, and individual practice with feedback	North-east USA	Puerto Ricans
Oster, RT	2010	Mobile screening program	Alberta/Canada	First Nations
Philis-Tsimikas, A	2011	Culturally sensitive diabetes self-management education program: 2-hr diabetes self-management classes, monthly support groups, led by a trained peer educator	San Diego county/USA	Mexican Americans
Phillips, LS	2005	Computerized reminders with patient-specific recommendations for management and/or individual face-to-face feedback on performance	Atlanta, Georgia/USA	African Americans

Table 1 (Continued)

First author	Year	Interventions	First author	Year
Plockinger, U	2010	Diabetes management program	Berlin/Germany	Immigrants/Natives/Turkey/former Yugoslavia/Arabian peninsula/Russia/Poland/others/Greece /United Kingdom/India/South-East Asia/Africa
Redmond, EH	2006	Eight lessons on diabetes self-management activities	Georgia/USA	African Americans/Caucasian
Rosal, MC	2011	Theory-based culturally-tailored literacy-sensitive diabetes self-management intervention	Massachusetts/USA	Latino
Samuel-Hodges CD	2009	Church-based diabetes self-management education intervention: individual counseling visits and group education sessions	North Carolina/USA	African Americans
Sequist, T	2010	Cultural competency training and race-stratified performance reports for primary care	Massachusetts/USA	Black/White
Skelly, AH	2009	Tailored, four-visit, in-home, symptom-focused diabetes intervention with booster telephone calls	North Carolina/USA	African Americans

Table 1 (Continued)

First author	Year	Interventions	Setting	Groups of patients included
Strum, MW	2005	Medication assistance program	Arkansas/USA	African Americans/Whites
Subramanian, U	2009	Open access scheduling	Indianapolis/USA	African Americans/Whites/other/unknown
Tang, TS	2010	Six-month empowerment-based diabetes self-management support interventions, including weekly sessions	Ypsilanti, Michigan/USA	African Americans
Toobert, DJ	2011	Diabetes self-management program, including 21/2 day retreat followed by weekly meetings	North Carolina/USA	Latinas
Two Feathers, J	2005	Community-based, culturally tailored diabetes lifestyle interventions, including education classes	Detroit/USA	Latinos/African Americans
Uitewaal, PJ	2005	Diabetes education program: 7 individual educational sessions, 3 group sessions	Rotterdam/Netherlands	Turks
Vincent, D	2009	Culturally tailored diabetes education intervention: 8-weekly 2-hour group sessions	Tucson, Arizona/USA	Mexican-Americans
Virani, S	2006	Screening using portable laboratory equipment	Alberta/Canada	First Nations

Table 1 (Continued)

First author	Year	Interventions	First author	Year
Walker, EA	2011	Telephone calls at 4- to 6-week intervals from a health educator	New York city/USA	Black/Hispanics/Whites/Others
Weinstock, RS	2011	Home telemedicine unit to video conference with a diabetes educator every 4-6 weeks for self-management education, review of transmitted home blood glucose and blood pressure measurements, individualized goal-setting, and educational web pages	Columbia/USA	Hispanics/Blacks/Whites
Welch, G	2011	Diabetes education intervention: 7 1-hour visits with bicultural/bilingual clinic support staff	Springfield, Massachusetts/ USA	Hispanics
West, DS	2007	Motivational interviewing and 42-session group-based behavioral weight management program	Birmingham, Alabama/USA	African Americans
Wilson, C	2005	Nurse case manager	Phoenix, Arizona/USA	American Indians/Alaska Natives

Culturally competent components of the interventions

Forty-one interventions in which no culture-specific component was identified were described as generic, with a general objective of reducing health inequalities. Twenty interventions were identified as specific. Specific interventions targeted cultural or linguistic aspects of the ethnic groups by e.g. taking account of cultural norms and values in the interventions. The 20 culture-specific interventions included responsiveness-related components such as culturally adapted content (n=15/20) and culturally adapted tools (n=5/20). Fourteen interventions addressed communication factors, including the use of interpreters (n=1/14), language concordance (n=10/14), and language matching (n=3/14). Twelve interventions used members of the community to deliver the intervention, e.g. diabetes-trained *promotores* or community link workers. Five interventions paid attention to the ethnic concordance between patients and those delivering the intervention. Two interventions were delivered in a culturally relevant setting for the participants (churches).

Intervention logic model: application of the CSDH model to the studies reviewed

In general, the interventions were not complex: 41 studies concerned less than two target groups. Moreover, interventions mainly concerned the patients (n=41/61) and their families/communities (n=27/61). Thirty-two interventions targeted health professionals and 25 targeted health agencies. Four interventions targeted the health care system, e.g. the introduction of health policies, while no interventions targeted other macro levels.

Each intervention was classified according to the CSDH model. At the level of intermediary determinants, 48 interventions set out to change patients' health-related behavior e.g. by modifying dietary habits or encouraging physical activity (Table 2). Only one intervention increased the availability of healthy food, while none aimed to modify living or working conditions. At the access level, 47 interventions improved personal access by decreasing linguistic or cultural barriers, while 27 interventions targeted structural access by modifying the organization of health care or improving the availability of services. Eight interventions improved financial access, mainly through public support such as state-funded health professionals or subsidized health care delivery. Forty-three interventions aimed to increase, directly or indirectly, the social capital of the participants. Forty-four interventions developed social support, either at the emotional level (n=44/44) or the informational level (n=44/44); these latter interventions reinforced patients' decision-making capacities. Five interventions targeted the socio-political context: two addressed both macro health policies and the social security system, while two addressed macro health policies only and one addressed the social security system. The latter included the introduction of a pay-for-performance scheme and the extension of reimbursement coverage for some treatments. Three interventions aimed to reduce the impact of social stratification due to income: these interventions developed preferential funding programs for those with low incomes in order to improve their access to health services. None of the interventions addressed social stratification due to education or employment.

Table 2 Review of the studies on ethnic health inequalities relating to Type 2 diabetes mellitus: number of studies according to the levels of interventions developed in the studies

Levels of interventions in the studies	**Number of studies**
Socio-political context	n=5/61
Policies/legislations	4
Social security	3
Social stratification	n=3/61
Income	3
Education	0
Employment	0
Social capital	n=61
	43

Table 2 (continued)

Levels of interventions in the studies	**Number of studies**
Social support	n=45/61
Emotional	44
Informational	44
Instrumental	1
Appraisal	0
Intermediary determinants	n=48/61
Health behaviors	47
Food availability	1
Living conditions	0
Working conditions	0
Access	n=57/61
Personal	47
Structural	27
Financial	8
Target groups	n=61
Patient	46
Health professionals	32
Community	27
Health services	25
Macro level	4

Defining disadvantage: PROGRESS characteristics of the participants

Table 3 reports the number of PROGRESS indicators that identify the socio-economic characteristics of the participants. Fifty-eight studies identified at least three PROGRESS indicators, mainly gender (n=56/61), age (n=55/61), and educational level (n=27/61). Forty studies gave information about the place of residence where the intervention was planned in terms of deprivation and/or urbanization. Thirty-one studies took place in a deprived area. One study collected only the ethnicity of the patients included. In relation to the three basic indicators of SES (income/education/occupational status), 32 studies did not collect any of these, nine studies reported one of the indicators, 15 studies collected two indicators, and the five remaining studies collected all three indicators.

Table 3 Review of the studies of culturally competent interventions relating to Type 2 diabetes mellitus: number of studies, according to the PROGRESS classification, that sought to characterize the disadvantages of the patients included in the interventions

PROGRESS indicators identified in the studies reviewed	**Number of studies** (n=61)
Race/ethnicity	61
Gender	56
Age	55
Place of residence	40
Education	27
Health insurance status	20
Income	17
Marital status	16
Occupation	10
Religion	3
Disability	3
Social capital	1

Overall, the SES of the participants was low. In the studies reporting educational level (n=27), high school was the highest level of education for over 50% of participants in 21 studies. The unemployed and retired represented over 50% of participants in seven of the ten studies that recorded occupational status. Of the 17 studies that recorded income, there were ten in which more than 50% of the participants had incomes in the lowest categories identified. Beneficiaries of Medicaid/Medicare represented more than 50% of the participants (n=10/20).

We also investigated how studies used the information about SES. Broadly speaking, few studies considered SES in data analysis. Twenty studies had a socio-economic hypothesis that could explain higher rates of health inequalities among ethnic minorities, but only three of these considered the SES of the participants in their analysis, with just two studies comparing the outcomes for groups with different SES.

Defining disadvantage: ethnicity/race of the participants

In 17 studies, only members of an ethnic/racial minority group were included, while the remaining 44 interventions included mixed samples of participants, including ethnic/racial minorities.

Ethnicity/race of the participants was characterized by one indicator in 37 studies, by two indicators in 12 studies, and by three indicators in four studies. Ethnicity/race was identified by several proxies: reference to a geographic continent or area (e.g. South Asians), nationality, cultural references (e.g. Hispanics), phenotypic attributes (e.g. black), tribal affiliations (e.g. Cheyenne Sioux River), place of birth, primary language, and language spoken at home. Length of stay was used in one study, while acculturation levels were assessed in four studies. Some studies characterized an ethnic group by both racial criteria and cultural references. Participants self-reported their ethnicity/race in four studies.

Ten studies compared outcomes between groups of different ethnicity/race, including a group considered as majority (e.g. white). Ten studies had mixed intervention groups, including a majority group, but did not compare outcomes between groups. Five studies compared outcomes between ethnic minority groups and four studies had an ethnically mixed intervention group but did not compare outcomes between the different groups.

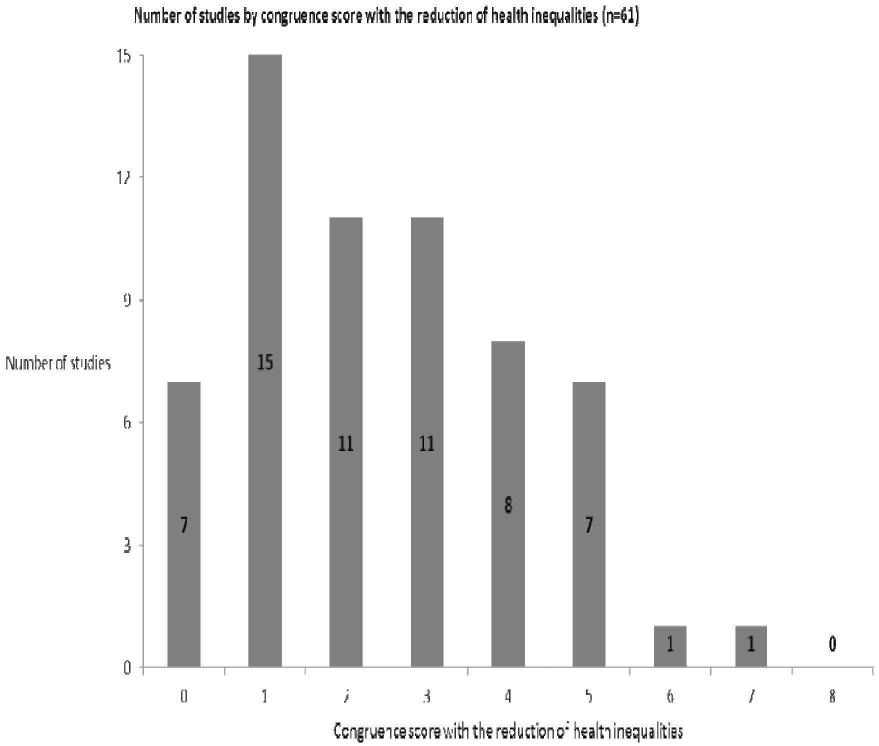
Thirty-eight studies involved Hispanics/Latinos/Mexican Americans, 29 studies involved Blacks/African Americans/Black Americans, and 19 studies involved Whites/Caucasians. There were 13 studies involving South Asians/Asians/Indians and 12 studies included Native Americans. The category “others” appeared in 11 studies. Four studies had a negative category, e.g. “non-white”.

Across all the studies that collected data on participants’ SES, the most frequent participant profile was a 56-year-old Hispanic woman with an educational achievement below 12th grade and a low household income, usually below $1000 a month.

Congruence score with the reduction of health inequalities

Graph 1 shows the average results of the congruence score with the reduction of health inequalities. The average score (ranging from 0-9) was a low 2.46 (SD 1.72). Most of the studies (n=33) had a very low value (2 or less, see Graph 1). None had the maximum score. The highest score (7/9) was achieved by the IDEATel study led by Weinstock et al. in 2010 (Weinstock et al. 2011) (Box 1).

Graph 1 Congruence score with the reduction of health inequalities in the studies on culturally competent interventions for ethnic minorities with Type 2 diabetes mellitus: number of studies reviewed (n=61)



107

Box 1 The IDEATel study, Weinstock et al. 2011

The IDEATel study is a large, randomized trial aimed at evaluating the effectiveness of telemedicine in an ethnically diverse population living in urban and rural underserved areas. Each participant received a home telemedicine unit and had a videoconference every four to six weeks with a diabetes educator. Participants were also given a review of their blood glucose and blood pressure, personal goal setting, and access to the educational web pages of the American Diabetes Association. Attention was paid to the language spoken by the patients. Data was collected over 5 years.

The authors observed racial and ethnic disparities in their sample. The use of telemedicine was associated with improvements in glycemic control. The improvement was particularly high among Hispanic patients.

The authors had a hypothesis about the role of SES in the higher prevalence of T2DM. They used a gradient measure of the socio-economic variables and collected information on the income, education level, and employment status of the participants. The study compared final outcomes across different ethnic groups (White, Black, and Hispanic) and between genders, but not between socio-economic groups, as they deliberately targeted an underserved population. The authors did not consider SES in their statistical analysis.

Table 4 shows the number of studies by indicator of the congruence score. Studies with the highest scores combined a complete theoretical approach to SES (i.e. existence of a theoretical hypothesis, relevance of the main SES indicator, relevance of the additional SES indicators, and multidimensional measurement) with the integration of SES into the methodology of the study (measurement of the SES, inclusion of gender, comparison between groups of different SES/different ethnicity, and inclusion of the SES in the statistical analysis). The studies with the lowest scores were the studies that did not take into account the methodological aspects congruent with the reduction of the health inequalities.

Table 4 Number of studies by indicators of congruence score of the 61 studies on culturally competent interventions for ethnic minorities having Type 2 diabetes mellitus

Indicator value	Number of studies
• The collected SES indicators are relevant for T2DM	27
• The study has a theoretical hypothesis for the role of SES in the intervention	24
• Gender is included in the statistical analysis	23
• The measures used to collect SES are accurate	19
• The additional SES indicator is relevant	17
• Groups of different ethnicity are compared	14
• The SES is included in the statistical analysis	4
• Groups of different SES are compared	2

Discussion

This equity-oriented systematic literature review aimed to assess whether culturally competent interventions in Type 2 diabetes mellitus management correspond to the recommendations for reducing health inequalities. Following a review of 137 papers, 61 papers were retrieved. The analysis found that the model of CC interventions, including its data design, data collection, and data analysis procedures, was, overall, not congruent with the reduction of health inequalities.

Firstly, we found that the models of CC interventions in our review had a very narrow perspective on ethnic inequalities. Most interventions aimed to modify patients' health-related behavior or to improve individual access to health services, thus shifting the burden of responsibility onto patients. As a consequence, most CC interventions aimed to reinforce responsiveness: interventions were adapted to meet the specific needs of patients from ethnic minority backgrounds. This is congruent with their behavioral targets: improving healthy behaviors implies interventions targeting cultural or linguistic barriers. However, few interventions aimed to improve the macro political and social determinants or the unequal distribution of socio-economic resources. Similarly, only a few interventions were complex. They therefore, for the most part, neglected two important sources of interactions when tackling health inequalities (Exworthy et al. 2006). The first of these is the interaction between the patient and health professionals. The second is the interaction between the patient and the local community, although the use of peers was quite a common practice in the studies reviewed. This is in clear contradiction to the recommendations for a comprehensive strategy for tackling inequalities issued by the WHO taskforce on health equity (WHO Regional Office for Europe 2010). Our literature review found that, to date, ethnic inequalities and socio-economic inequalities have been treated as two separate issues, despite the fact that it has been demonstrated that ethnic and socio-economic inequalities are co-constructed (Lorant and Bhopal 2011). Overlooking one issue is therefore likely to lead to less effective interventions when dealing with the other (Powell Sears 2012).

Our review found very few studies suggesting that racism or discrimination played a role in the higher prevalence of T2DM among ethnic minorities, although discrimination has been suggested as a linking concept between socio-economic inequalities and ethnic inequalities (Krieger 2012). It is telling that despite involving extremely deprived participants, the interventions, overall, paid little attention to the socio-economic factors. Although double jeopardy has been acknowledged in some models of cultural competence, CC interventions that take the multidimensionality of inequalities into account are still rare (Betancourt et al. 2003). Consequently, in practice, interventions intended to reduce health inequalities may focus either on ethnic inequalities or socio-economic inequalities, but rarely on both. There is therefore a need for approaches with a broader perspective on the sources of inequalities (Paluck and Green 2009).

Another reason why interventions pay little attention to cumulative risks could be that it is more practical to increase access to health care than it is to improve people's SES. Although a third of the studies acknowledged the existence of the SES hypothesis in relation to T2DM, most studies ignored its relevance for the interventions in question. At the health service level, it could be more effective to improve access to health care for a specific group – in this case, ethnic minorities– than to redistribute resources to all groups of immigrants or ethnic minorities: it seems easier to hire a Hispanic nurse as an interpreter than to improve a patient's educational status.

Our second finding indicates that few studies reviewed have the right kind of design to show a reduction of ethnic inequalities in T2DM. Few studies involved a majority group as comparison. Most were therefore unable to demonstrate the effectiveness of the interventions in reducing health inequalities between immigrants and ethnic minorities and the rest of the population (Keppel et al. 2005). In addition, the majority of the patients included in the interventions had low incomes or low educational levels: most were unemployed or retired and covered by special health insurance regimes such as Medicaid or Medicare. The patients therefore accumulated several vulnerabilities (Kaufman and Kaufman 2001). Within this context, we may question what is really identified by the ethnic categories: ethnic inequalities and socio-economic inequalities are co-constructed and difficult to disentangle without proper data collection and design.

Furthermore, health insurance coverage such as Medicaid and Medicare may lower the effects of socio-economic deprivation on poor access to health facilities. Consequently, CC interventions tend to focus on ethnic vulnerability rather than on socio-economic vulnerability. This suggests that the CC approach is a targeted approach to inequality. Although targeted approaches may make it possible to improve adaptations of the interventions for the vulnerable group, they are also likely to increase prejudice and stigmatization, so they should form part of broader strategies for tackling inequality (Paluck and Green 2009). Integrating targeted approaches to health inequalities is part of the WHO strategy: the differential vulnerability of some groups means that specific group-based approaches are required (Blas and Sivasankara Kurup 2010).

Our third finding was that the studies reviewed did not take the PROGRESS indicators into account when it came to measurement and data analysis. Although multidimensional measures of ethnicity are recommended in the literature (Bhopal 2007), most studies used only one indicator of ethnicity/race. Similar weaknesses were noted with respect to SES: 32 studies included no information about SES (income, education, or occupational status), while very few combined two indicators of SES. When they did include such information, SES indicators were, surprisingly, not used in data analysis. The overall quality of the studies in terms of measuring SES is therefore very low and given the pervasive association between ethnicity and SES, we have concluded that these studies do not properly measure ethnic inequalities for T2DM. Indeed, previous studies have shown that controlling for SES leads to a reduction of ethnic health inequalities (Vandenheede and Deboosere 2009) and in some cases such differences were even reversed (McElduff et al. 2005).

This literature review has some limitations. Firstly, eligibility was limited to English, Spanish, Dutch, or French language studies and to published indexed studies. Furthermore, due to financial and material constraints, we were not registered with all of the databases that might have helped us widen our searches, such as CINHAL. It is likely that more interventions relating to T2DM exist that have not been published. However, some have suggested that these limitations do not substantially affect the results of a review (Egger et al. 2003). We are conscious that a publication bias may occur, as in all literature reviews. A more extensive search might have identified more diverse literature than we found, but when we compared our review to previous literature reviews (see, among others, (Glazier et al. 2006; Peek, Cargill, and Huang 2007), this showed that the interventions retrieved in our literature review are, in fact, representative of the wider field of T2DM interventions. However, we selected the five most important databases in the field of public health research. Moreover, most of the studies that met our inclusion criteria were tagged in both MEDLINE and IsiWeb of Science, which supports the relevance of the selected databases and the idea that two databases had already led to some redundancies.

We developed a relatively simple congruence score with the framework of the reduction of health inequalities, in which the same value was attributed to each item. We concede that items may vary in their importance for the reduction of health inequalities. Further studies should adapt this scale by weighting each item according to their impact on the reduction of health inequalities.

We focused mainly on the theoretical aspects of the interventions and not on their clinical outcomes. In actual fact, an intervention may be efficient even if this intervention is not congruent with the theoretical framework of inequalities. Recent research in the field of health inequalities has attempted to assess which intervention design is most effective at reducing inequalities (Lorenc et al. 2013). Moreover, we cannot judge whether some interventions were more effective than others in reducing health inequalities, as only a few studies included a comparable majority group and used a study design that would elucidate the differences. Peek et al. (2007) experienced the same difficulty in their review on diabetes health disparities (Peek, Cargill, and Huang 2007). It could be argued that these interventions aimed to reduce the proportion of patients with morbid glycated hemoglobin and focused on the more vulnerable groups with the worst clinical indicators. However, focusing on the most disadvantaged groups may increase stigmatization and prejudice towards those groups. Focus on specific groups may also diminish the sensitivity or the specificity of some interventions, thereby preventing patients from effectively improving their health status. In this sense, a more universal approach may be fairer and contribute to a more general improvement of health status that includes the more vulnerable groups. We identified universal approaches in our review such as the pay-for-performance scheme (Millet et al. 2007) and the introduction of systematic care (Kenealy et al. 2010). The introduction of a pay-for-performance scheme contributed to the reduction of health disparities for some ethnic minority groups (Millet et al. 2007).

Some of the studies reviewed were not aimed at decreasing health inequalities between minority and majority ethnic groups. For example, studies may target a specific minority ethnic group with the objective of improving their T2DM outcomes, disregarding what happened to the rest of the population. Our rating may have been too harsh with these studies as they have hardly any majority comparison. Indeed, targeted and universal approaches require different ways of measuring their impact on inequality. From a more general point of view, our review does not invalidate the quality or the effectiveness of these studies but appraises them with an inequality reduction lens. Further studies should examine study design in correlation with the clinical outcomes of the studies to assess their effectiveness at reducing health inequalities between ethnic minorities and majority groups.

We also acknowledged that our rating may have been too harsh with studies considering SES as a confounding factor in the statistical analysis. Including SES as a confounding factor somehow constitutes an acknowledgement of a role played by the SES while not including SES is likely to produce biased results in the statistical results. However we accorded a higher value to the consideration of SES as a mediating variable because it better encompasses the fact that ethnic and socioeconomic inequalities are co-constructed. Further reviews using this kind of rating may better take into account the differential impact on the outcomes of mediating and confounding variables.

To conclude this literature review, we would like to highlight two key points. The first of these concerns the CC interventions. Without improvements to methodological rigor and without targeting of the structural sources of inequalities, CC interventions are unlikely to contribute to the reduction of health inequalities among ethnic minorities with T2DM. We observed that most studies did not have the proper design to show reductions in health inequalities. Moreover, as the role of SES was not clearly assessed, it is likely that confusion may have occurred between inequalities due to ethnicity and those due to socio-economic factors. Consequently, the effects of the interventions remain unclear. To address this, further interventions should acknowledge discrimination more fully, with a view to reducing both ethnic and socio-economic inequalities. An ideal study design would have a stratified sampling of the population according to ethnicity and SES, with an equal balance of gender in each group. Analysis would compare the different groups, with the group experiencing the best health status or the best situation as reference.

Our second point concerns the concept of cultural competence itself. The future of CC interventions may involve going one step further and going back to the initial tenets of cultural competence reconsidering: the integration of difference, whatever its sources – gender, ethnicity, age, sexual orientation, or SES – into the delivery of fair health care for patients. The content of the difference is ultimately not so important: what matters is how this difference is integrated into the health care services or into the relationship between health professionals and their patients. Patient-centered care or community health, based on community diagnosis, may be an alternative solution to the problem of improving equity in health for immigrants and ethnic minorities with T2DM. Allowing the integration of the specific needs of a vulnerable group into more generic health care delivery is relevant not only for ethnic minorities but also for other vulnerable groups such as the poor and underserved, women, and the elderly. Further interventions aimed at reducing ethnic inequalities should be oriented towards the delivery of "equity-competent" health care rather than "culturally-competent" health care.

Key messages

(1) Studies need improvements in their design so as to be able to show reductions in ethnic health inequalities relating to Type 2 diabetes mellitus.
(2) We believe that a comprehensive approach to inequality is required, which incorporates both socio-economic and ethnic factors into measurement and analysis.
(3) Interventions aimed at reducing ethnic inequalities should be oriented towards the delivery of "equity-competent" health care rather than "culturally-competent" health care.

Acknowledgments The authors would like to express their sincere gratitude to William D'Hoore for his contribution to the process of reviewing the papers selected for the literature review and to Isabelle Aujoulat for her comments on the manuscript. MD is a research fellow of the Belgian Fonds de la Recherche Scientifique-FNRS. The authors declare that there are no competing interests. The authors would also like to thank the two anonymous reviewers for their comments and support.

References

- American DA. 2012. Standards of medical care in diabetes - 2012 (Position statement). *Diabetes Care* 35 (Suppl1): S11-S63.
- Beach MC, Gary TL, Price EG, Robinson K, Gozu A, Palacio A, Smarth C, Jenckes M, Feuerstein C, Bass EB, Powe NR, and Cooper LA. 2006. Improving health care quality for racial/ethnic minorities: a systematic review of the best evidence regarding provider and organization interventions. *BMC Public Health* 6: 104.
- Berkman L, and Kelly MP. 2000. *Social Epidemiology*. Oxford: Oxford University Press.
- Betancourt JR, Green AR, Carrillo JE, and Ananeh-Firempong II O. 2003. Defining cultural competence: A practical framework for addressing racial/ethnic disparities in health and health care. *Public Health Reports* 118 (4): 293-302.
- Bhopal RS. 2007. *Ethnicity, race, and health in multicultural societies.Foundations for better epidemiology, public health, and health care*. Oxford: Oxford University Press.
- Blas E, and Sivasankara Kurup A. 2010. *Equity, social determinants and public health programmes*. Geneva: World Health Organisation.
- Brach C, and Fraserirector I. 2000. Can cultural competency reduce racial and ethnic health disparities? A review and conceptual model. *Medical Care Research and Review* 57 (SUPPL. 1): 181-217.
- Carpenter-Song EA, Nordquest Schwallie M, and Longhofer J. 2007. Cultural competence reexamined: Critique and directions for the future. *Psychiatric Services* 58 (10): 1362-1365.
- Cavanaugh K, Huizinga MM, Wallston KA, Gebretsadik T, Shintani A, Davis D, Gregory RP, Fuchs L, Malone R, Cherrington A, Pignone M, DeWalt DA, Elasy TA, and Rothman RL. 2008. Association of numeracy and diabetes control. *Annals of Internal Medicine* 148 (10): 737-746.
- Cavanaugh K, Wallston KA, Gebretsadik T, Shintani A, Huizinga MM, Davis D, Gregory RP, Malone R, Pignone M, DeWalt D, Elasy TA, and Rothman RL. 2009.

Addressing literacy and numeracy to improve diabetes care: Two randomized controlled trials. *Diabetes Care* 32 (12): 2149-2155.

- Centre for Reviews and Dissemination. 2009. Systematic Reviews. CRD's guidance for undertaking reviews in health care. ed CRD York: University of York.
- Chang AB, Taylor B, Masters IB, Laifoo Y, and Brown AD. 2010. Indigenous healthcare worker involvement for Indigenous adults and children with asthma. *Cochrane Database of Systematic Reviews* 12 (5): CD006344.
- Cook CB, Tsui C, Ziemer DC, Naylor DB, Miller WJ, and Hentz JG. 2006. Common reasons for hospitalization in urban diabetes patients. *Ethnicity and Disease* 16 (2): 391-397.
- Craig P, Dieppe P, Macintyre S, Michie S, Nazareth I, and Petticrew M. 2008. Developing and evaluating complex interventions: the new Medical Research Council guidance. *BMJ (Online)* 337: a1655.
- Cross T, Bazron B, Dennis K, and Isaacs M. 1989. Towards a Culturally Competent System of Care: A Monograph on Effective Services for Minority Children Who Are Severely Emotionally Disturbed. ed GUCDC CASSP Technical Assistance Center Washington DC.
- CSDH. 2008. Closing the gap in a generation: health equity through action on the social determinants of health. Final Report of the Commission on Social Determinants of Health. ed World Health Organisation Geneva.
- Egger M, Juni P, Bartlett C, Holenstein F, and Sterne J. 2003. How important are comprehensive literature searches and the assessment of trial quality in systematic reviews? Empirical study. *Health Technology Assessment* 7 (1).
- Exworthy M, Bindman A, Davies H, and Washington AE. 2006. Evidence into policy and practice ? Measuring the progress of US and UK policies to tackle disparities and inequalities in the US and UK health and health care. *Milbank Quartlerly* 84 (1): 75-109.
- Fischbacher C, Bhopal RS, Steiner M, Morris AD, and Chalmers J. 2009. Is there equity of service delivery and intermediate outcomes in South Asians with type 2 diabetes? Analysis of DARTS database and summary of UK publications. *Journal of Public Health* 31 (2): 239-249.
- Galobardes B, Shaw M, Lawlor DA, Lynch J, and Davey Smith G. 2006. Indicators of socioeconomic position (part 2). *Journal of Epidemiology and Community Health* 60 (2): 95-101.
- Galobardes B, Shaw M, Lawlor DA, Lynch JW, and Davey Smith G. 2006. Indicators of socioeconomic position (part 1). *Journal of Epidemiology and Community Health* 60 (1): 7-12.
- Glazier RH, Bajcar J, Kennie NR, and Willson K. 2006. A systematic review of interventions to improve diabetes care in socially disadvantaged populations. *Diabetes Care* 29 (7): 1675-1688.

- Gold M. 1998. Part I: The concept of access and managed care. Beyond coverage and supply: Measuring access to healthcare in today's market. *Health Services Research* 33 (3 II): 625-652+681.
- Kaufman J, and Kaufman S. 2001. Assessment of structured socioeconomic effects on health. *Epidemiology* 12 (2): 157-167.
- Kenealy T, Eggleton K, Robinson E, and Sheridan N. 2010. Systematic care to reduce ethnic disparities in diabetes care. *Diabetes Research and Clinical Practice* 89 (3): 256-261.
- Keppel K, Pamuk E, Lynch J, Carter-Pokras O, Kim I, Mays V, Pearcy J, Schoenbach V, and Weissman J. 2005. Methodological issues in measuring health disparities. ed National Center for Health Statistics.
- Kim-Godwin YS, Clarke PN, and Barton L. 2001. A model for the delivery of culturally competent community care. *Journal of Advanced Nursing* 35 (6): 918-925.
- Kirmayer LJ. 2012. Rethinking cultural competence. *Transcultural Psychiatry* 49 (2): 149-164.
- Krieger N. 2012. Methods for the scientific study of discrimination and health: an ecosocial approach. *American Journal of Public Health* 102 (5): 936-944.
- Kumagai AK, and Lypson ML. 2009. Beyond cultural competence: Critical consciousness, social justice, and multicultural education. *Academic Medicine* 84 (6): 782-787.
- Lanting LC, Joung IMA, Mackenbach JP, Lamberts SWJ, and Bootsma AH. 2005. Ethnic differences in mortality, end-stage complications, and quality of care among diabetic patients: A review. *Diabetes Care* 28 (9): 2280-2288.
- LaVeist T, Pollack K, Thorpe J, Fesahazion R, and Gaskin D. 2011. Place, not race: Disparities dissipate in Southwest Baltimore when blacks and whites live under similar conditions. *Health Affairs* 30 (10): 1880-1887.
- Lorant V, and Bhopal RS. 2011. Ethnicity, socio-economic status and health research: Insights from and implications of Charles Tilly's theory of durable inequality. *Journal of Epidemiology and Community Health* 65 (8): 671-675.
- Lorant V, Van Oyen H, and Thomas I. 2008. Contextual factors and immigrants' health status: Double jeopardy. *Health and Place* 14 (4): 678-692.
- Lorenc T, Petticrew M, Welch V, and Tugwell P. 2013. What types of interventions generate inequalities? Evidence from systematic reviews. *J Epidemiol Community Health* 67 (2): 190-193.
- Marshall J. 2005. Diabetes in African Americans. *Postgraduate Medical Journal* 81 (962): 734-740.
- McElduff P, Edwards R, Burns J, Young R, Heller R, Long B, Jones G, and New J. 2005. Comparison of processes and intermediate outcomes between South Asian

and European patients with diabetes in Blackbunr, north-west England. *Diabetic Medicine* 22 (9): 1226-1233.

- Millet C, Gray J, Saxena S, Netuveli G, Khunti K, and Majeed A. 2007. Ethnic disparities in diabetes management and pay-for-performance in the UK: the Wandsworth Prospective Diabetes Study. *PLoS Medicine* 2007 (4): 6-e191.
- Nierkens V, Krumeich A, di Ridder R, and Van Dongen M. 2002. The future of intercultural mediation in Belgium. *Patient Education and Counseling* 46: 253-259.
- Oliver S, Kavanagh J, Caird J, Lorenc T, Oliver K, and Harden A. 2008. Health promotion, inequalities and young people's health. A systematic review of research. ed C EPPI.
- Pager D, and Shepherd H. 2008. The sociology of discrimination: Racial discrimination in employment, housing, credit, and consumer markets. *Annual Review of Sociology* 34: 181-209.
- Paluck EL, and Green DP. 2009. Prejudice reduction: What works? a review and assessment of research and practice. *Annual Review of Psychology* 60: 339-367.
- Peek ME, Cargill A, and Huang ES. 2007. Diabetes health disparities: A systematic review of health care interventions. *Medical Care Research and Review* 64 (5 SUPPL.): 101S-156S.
- Powell Sears K. 2012. Improving cultural competence education: The utility of an intersectional framework. *Medical Education* 46 (6): 545-551.
- Ridley CR, Baker DM, and Hill CL. 2001. Critical issues concerning cultural competence. *Counseling Psychologist* 29 (6): 822-832.
- Scheppers E, van Dongen E, Dekker J, Geertzen J, and Dekker J. 2006. Potential barriers to the use of health services among ethnic minorities: a review. *Family practice* 23 (3): 325-348.
- Seeleman C, Suurmond J, and Stronks K. 2009. Cultural competence: A conceptual framework for teaching and learning. *Medical Education* 43 (3): 229-237.
- Shaw M, Galobardes B, Lawlor DA, Lynch J, Wheeler B, and Davey Smith G. 2007. *The handbook of inequality and socioeconomic position. Concepts and measures.* Bristol: Policy Press.
- Snilstveit B, Oliver S, and Vojtkova M. 2012. Narrative approaches to systematic review and synthesis of evidence for international development policy and practice. *Journal of Development Effectiveness* 4 (3): 409-429.
- Tang YH, Pang SMC, Chan MF, Yeung GSP, and Yeung VTF. 2008. Health literacy, complication awareness, and diabetic control in patients with type 2 diabetes mellitus. *Journal of Advanced Nursing* 62 (1): 74-83.
- Tugwell P, Petticrew M, Kristjansson E, Welch V, Ueffing E, Waters E, Bonnefoy J, Morgan A, Doohan E, and Kelly MP. 2010. Assessing equity in systematic reviews:

Realising the recommendations of the Commission on Social Determinants of Health. *BMJ (Online)* 341 (7778): 873-877.

- Vandenheede H, and Deboosere P. 2009. Type 2 diabetes in Belgians of Turkish and Moroccan origin. *Archives of Public Health* 67 (2): 62-87.
- Waddington H, White H, Snilstveit B, Garcia Hombrados J, Vojtkova M, Davies P, Bhavsar A, Eyers J, Perez Koehlmoos T, Petticrew M, Valentine JC, and Tugwell P. 2012. How to do good systematic review of effects in international development: a tool kit. *Journal of Development Effectiveness* 4 (3): 359-387.
- Weinstock R, Teresi J, Goland R, Izquierdo R, Palmas W, Eimicke J, Ebner S, Shea S, and Ideatel C. 2011. Glycemic control and health disparities in older ethnically diverse underserved adults with diabetes: five-year results from the Informatics for Diabetes Education and Telemedicine (IDEATel) study. *Diabetes Care* 34 (2): 274-279.
- WHO Regional Office for Europe. 2010. How health systems can address health inequities linked to migration and ethnicity ? ed WHO Regional Office for Europe Copenhagen.

CHAPTER 2: Effectiveness of culturally competent interventions in the improvement of quality of care

The chapter 2 presents the second part of our literature review. This study used the Chronic Care model as a template applied to diabetes management to assess whether culturally competent interventions targeting patients from ethnic minorities suffering from type 2 diabetes mellitus are included in more than a single dimension of disease management. More precisely, we addressed the following research question: are culturally competent interventions in ethnic minority groups with type 2 diabetes mellitus only parts of the design of the delivery system or does the Chronic Care Model shape other components of the culturally competent interventions? In other words, to what extent do these culturally competent interventions reflect the dimensions of the Chronic Care Model framework?

- Dauvrin M, Lorant V, d'Hoore W. Do Culturally Competent Interventions in Type 2 Diabetes for ethnic minorities pervade in the Chronic Care Model? A review.

The paper has been submitted to Evaluation and the Health Professions on May 13, 2013. The paper is currently under revision (first revision sent on August 12, second revision sent on October 27).

This chapter was presented as an oral communication as:

- Dauvrin M, Lorant V. *Chronic Care Management and Culturally Competent Interventions in Type 2 Diabetes Mellitus: Walking together or following two opposite directions?* 4th European Public Health Conference. 2011. Copenhagen (Denmark). Abstract published in *European Journal of Public Health* 2011, 21 (S1): 193.

Do Culturally Competent interventions for adults from ethnic minorities suffering from Type 2 diabetes mellitus reflect the Chronic Care Model? A review

The Chronic Care Model (CCM) concerns both the medical and the cultural and linguistic needs of the patients through the inclusion of cultural competences in the delivery system design. This review attempted to identify to what extent culturally competent interventions for adults from ethnic minorities suffering from Type 2 diabetes mellitus reflect the dimensions of the CCM. We identified the CCM and the culturally competent components in the relevant studies published between 2005 and 2011. After reviewing 5284 references, 25 studies were included. Self-management (n=24) was the most frequent CCM component. Eighteen interventions integrated cultural norms from the patients' cultural background. Self-management was usually approached through cultural responsiveness (n=19). Culturally competent interventions reflected the CCM at the individual level but need to address the organizational level better. Despite the effectiveness of interventions in the published studies at controlling glycated hemoglobin, there is room for improvement. The scope of culturally competent interventions could be expanded to transform health care organizations and systems.

Keywords

Cultural competences, chronic care model, literature review, Type 2 diabetes mellitus, ethnic minorities

Introduction

The Type 2 diabetes mellitus (Type 2 DM) epidemic affects millions of people around the world and is predicted to continue to do so (Chen, Magliano, & Zimmet, 2012; Holman, Forouhi, Goyder, & Wild, 2011; Brinks, Tamayo, Kowall, & Rathmann, 2012). A higher prevalence of Type 2 DM is observed among ethnic minority groups when compared to majority population groups: African Americans compared to white Americans, South Asians compared to white British and Turks and Moroccans compared to Belgians (Garduño-Diaz & Khokhar, 2012; Abouzeid, Philpot, Janus, Coates, & Dunbar, 2013; Gholap, Davies, Patel, Sattar, & Khunti, 2011; Gujral, Echouffo-Tcheugui, & Narayan, 2011; Kountz, 2012; Vandenheede & Deboosere, 2009). These ethnic minority groups have a greater risk of retinopathies, renal disorders, neuropathies, amputations and premature deaths due to Type 2 DM (Long, Gracely, Newschaffer, & Liu, 2013; Kanaya et al., 2011; Campbell, Walker, Smalls, & Egede, 2012; Bellary et al., 2010). Moreover, they usually have poorer glycemic control and lower adherence to treatments (Parker et al., 2012; Bellary et al., 2010; James et al., 2012) and are more frequently hospitalized for severe glycemic troubles (Kim, Ford, Chiriboga, & Sorkin, 2012). Several factors prevent migrants from accessing the appropriate health care. These include living and socioeconomic conditions (Abouzeid et al., 2013; Sims et al., 2011; Zheng et al., 2012) as well as linguistic and cultural barriers (Bell, 2011; Wilson et al., 2012). Moreover, discrimination and institutional or individual racism increase the challenges for ethnic minorities, leading to poorer health outcomes (Gonzales, Harding, Lambert, Fu, & Henderson, 2013; Pieterse, Todd, Neville, & Carter, 2012).

To counterbalance the effects of such barriers to health care, the pressure is increasing on health professionals and health services to become culturally competent (CC). Culturally competent interventions have been recommended to reduce inequality between ethnic minorities and the general population and to improve the quality of care delivered (Brach & Fraserirector, 2000; Kirmayer, 2012). According to the holistic definition of Betancourt and colleagues

(Betancourt, Green, Carrillo, & Ananeh-Firempong II, 2003), *a 'culturally competent' health care system has been defined as one that acknowledges and incorporates—at all levels—the importance of culture, assessment of cross-cultural relations, vigilance toward the dynamics that result from cultural differences, expansion of cultural knowledge, and adaptation of services to meet culturally unique needs. A culturally competent system is also built on an awareness of the integration and interaction of health beliefs and behaviors, disease prevalence and incidence, and treatment outcomes for different patient populations*. It then involves numerous interventions which first imply the acknowledgement of the prejudices and the discrimination towards migrants and ethnic minorities (Kim-Godwin, Clarke, & Barton, 2001). Once the prejudices are acknowledged and accepted, the development of CC interventions requires broad health plans including patients, health professionals as well as health services and the health system itself (Betancourt et al., 2003; Kirmayer, 2012). Previous studies have shown that CC programs may perform better for ethnic minorities than programs in which no CC components are included (Henderson, Kendall, & See, 2011; Renzaho, Romios, Crock, & Sonderlund, 2013).

As for other chronic illnesses, patients with Type 2 DM also require disease management to ensure high quality care (Weingarten et al., 2002). Wagner's Chronic Care Model (CCM) has been proven to be a useful guide to improving care quality for chronic conditions (Coleman, Austin, Brach, & Wagner, 2009). In the 2003 update, paying attention to the cultural background of the patient was acknowledged as a component of the CCM (The MacColl Center, 2013). The CCM framework recommends the delivery of health care adapted to the cultural background of the patient. To achieve this objective, the CCM framework integrates cultural competences components into the design of the delivery system. The recommendation is to "*give care that patients understand and that fits with their cultural background*". This seemingly limited focus contrasts with the basic principles of current models of cultural competences, which emphasize that attention should be given to cultural and linguistic traits within all aspects of health care, if a holistic perspective is to be applied(Campinha-Bacote, 2002). So far, as domains of health care interact, we may question whether cultural competence is included in other aspects of diabetes management. For example, self-management support, which implies patient education, may require cultural competence in order to be effective for ethnic minority groups.

This study therefore used the CCM as a template and applied it to diabetes management to assess whether CC interventions targeting adults from ethnic minorities suffering from Type 2 diabetes mellitus are included in more than a single dimension of disease management. More precisely, we addressed the following research question: are culturally competent interventions in ethnic minority groups with Type 2 DM only part of the design of the delivery system or does the CCM shape other components of CC interventions? In other words, to what extent do these CC interventions reflect the dimensions of the CCM framework? We have attempted to answer this question with a review of the international literature published between 2005 and 2011.

Methods

Search strategy and data extraction

We conducted a literature review to identify culturally competent interventions in adults from ethnic minorities suffering from Type 2 DM. The initial search strategy was developed for MEDLINE, based on the PICO method. The main MESH terms were ‘cultural competences’ AND ‘Type 2 diabetes mellitus’ AND ‘ethnic minorities’. This strategy served as the basis for searching the other electronic databases and was adapted to the characteristics of the other databases to maximize the sensitivity. We used truncated search terms to increase the sensitivity of our results. The inclusion criteria for the study design were not limited to randomized controlled trials but also included qualitative studies, cohort studies and other designs. No restrictions were made on the length of the follow-up in the studies. The time span for the review was from 2005 to 2011.

Between November 2011 and December 2011, we searched: (1) MEDLINE; (2) IsiWeb of Science; (3) DARE, (4) the Cochrane Database, and (5) Dopher. We also identified three journals: (1) *The Diabetes Educator*, (2) *Ethnicity and Health,* and (3) *Ethnicity and Disease*, in which we conducted additional queries. We also scanned the references of some key review articles that we had previously identified in our electronic searching. We only selected published material.

The data extraction procedure was based on the criteria developed by the Centre for Reviews and Dissemination. Citations and abstracts were stored into the software RefMan©. Standardized review forms were developed in an Excel database in order to (1) identify the culturally competent components of the interventions, (2) identify the Chronic Care Model components within the interventions, and (3) to identify the study characteristics and outcomes. The forms were based on the literature on cultural competences and on the Chronic Care model (Brach & Fraserirector, 2000; Betancourt et al., 2003; Coleman et al., 2009; Griner & Smith, 2006; Bischoff, 2003; Bodenheimer, Wagner, & Grumbach, 2002a; Bodenheimer, Wagner, & Grumbach, 2002b; Pearson et al., 2005).

Study selection

The review process of the papers was carried out by three reviewers (MD, WD & VL). Each reviewer first individually checked the abstract on the basis of inclusion and exclusion criteria. Inclusion criteria were: interventions with a clear focus on Type 2 DM, presence of at least one group of patients identified as member of an ethnic minority (in relation to the national context of ethnicity), and interventions in inpatient or outpatient settings. Three categories of exclusion criteria for the abstracts were identified: article-related exclusion criteria, patient-related exclusion criteria, and intervention-related exclusion criteria (see Figure 1 for details of exclusion criteria). At the end of the review process, each abstract received a code: A (accepted), C (further reading before final decision) or R (rejected). Divergent coding was discussed and the final decision for acceptance was made following discussion. We then reviewed the full papers of those with abstracts in categories A and C. A common measure of outcomes was then chosen, to ensure better comparability between the studies. Glycated hemoglobin (HbA1c) was identified because it is a widely recommended clinical indicator of the follow-up and quality of diabetes care (American Diabetes Association, 2012) that may also reflect psycho-behavioral changes such as better adherence to self-management activities. Papers without a measure of HbA1c were excluded.

Classification of the interventions

Two independent reviewers (MD & MFL) classified the interventions according to their culturally competent components and CCM elements. Divergent coding was discussed and the final decision on the classification of the interventions was made by consensus.

The definition and operationalization of the dimensions of the CCM were inspired by the classification used by Pearson and colleagues (Pearson et al., 2005). The CCM comprises 6 principal domains of actions: (1) self-management support, (2) health care organization, (3) clinical information systems, (4) delivery system design, (5) decision support, and (6) community resources and policies (Bodenheimer et al., 2002a). Three levels of action co-exist and interact within the CCM: micro level (patient-level), meso level (service-level) and macro level (political level or community-level) (Pearson et al., 2005). At the micro level, self-management support directly concerns the patient and includes components such as patient education and psychosocial support and self-management activities such as foot care or self-monitoring for glycemia. The service-level concerns the health care organization and implies changes at a higher level such as the entire institution or health system including incentive-based systems or the development of a supportive leadership. Delivery system design consists of changes in patient flows and clinical personnel through the introduction of care management roles, planned follow-ups or synchronized visits. Decision support directly concerns the health professionals and is aimed at improving their knowledge and skills through education, instauration of guidelines or health protocols or consulting external experts. The final element at the meso level, the clinician information system, concerns both health professionals and institutions. It may consist of reminder systems or performance feedback ((Bodenheimer et al., 2002a; Bodenheimer et al., 2002b; Pearson et al., 2005; Tsai, Morton, Mangione, & Keeler, 2005). At the macro level, resources and policies target patients and communities and involve, for example, partnership programs with local associations, collaboration with peers to deliver the intervention as well as policies aimed at improving the overall health of the patient.

Classification criteria for culturally competent interventions were defined according to previous studies (Brach & Fraserirector, 2000; Betancourt et al., 2003; Griner & Smith, 2006; Bischoff, 2003; Kirmayer, 2012). We ended up with 6 categories: (1) interventions focusing on communication factors (including language concordance and interpreters), (2) interventions targeting the patient-health professional ethnic concordance or ethnic matching (the professional and the patient belong to the same ethnic group), (3) interventions developing responsiveness (the content of the intervention or the method used in the intervention is adapted to the cultural background of the patient), (4) interventions using peers or community members, (5) interventions modifying the organization of health services and (6) training of the health professionals. Responsiveness is defined as responsiveness to the sociocultural background and the individual needs of the patients. Responsiveness aims to achieve adequacy of health services for migrant patients in the institution (Bischoff, 2003). It may consist of providing culturally adapted meals in hospitals or adapting an existing educational intervention by adding specific cultural references into its components.

Results

Characteristics of the Selected Studies

After reviewing 5284 references and checking 102 abstracts, we ended up with 25 studies that met our inclusion criteria (Fig. 1). Table 1 shows the authors, year of publication, the content of the interventions, the settings of the study, and the ethnic groups of the patients in these 25 studies. Ten papers had been published in diabetes-related journals, seven papers had been published in health education-related journals, and the remaining papers had been published in nursing journals, public health journals or community health journals.

The duration of the studies varied from 3 to 24 months. In nine studies, the outcomes were collected at least twice post-intervention. Six studies had a before/after design while other studies were comparative studies comprising a control group. The control groups usually received standard care. In some studies, the participants in the control groups received the intervention after the follow-up period. Twenty-one interventions concerned patients belonging to a sole ethnic group, e.g. a homogeneous group of Latinos. In three studies, participants belonged to various ethnic groups, including a non-minority group such as White patients compared with Black patients. In the two remaining studies, the participants were from various ethnic groups but without a majority group, e.g. African Americans and Hispanics.

Figure 1 Review process of the literature search on culturally competent interventions in type 2 diabetes mellitus published between 2005 and 2011

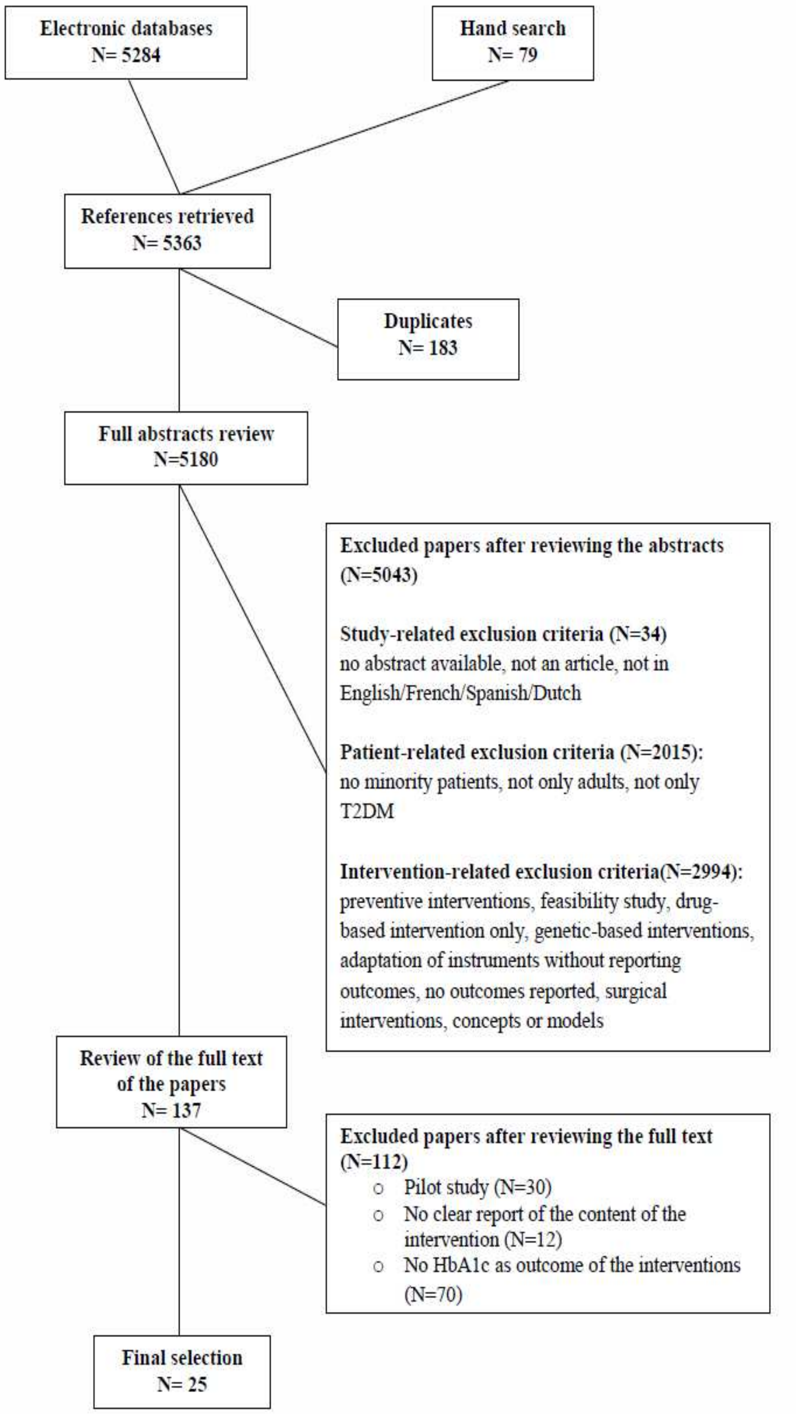


Table 1 Characteristics of Selected Studies

First Author	Year	Interventions	Setting	Groups included	Chronic Care Components	Culturally competent components
Anderson-Loftin	2005	Four weekly classes in low-fat dietary strategies, 5 monthly peer-professional group discussions, and weekly telephone follow-up	South Carolina, USA	African Americans	1	A B C
Anderson	2005	Program consisting of six two-hour group sessions held in weekly in convenient community-based locations	Michigan, USA	African Americans	1	A
Beckham	2008	Community health workers	Hawai'i, USA	Asian/Pacific Islander ethnic background, Native Hawaiian ethnic background	1,2, 6	C
Bellary	2008	Additional time with practice nurse and support from a link worker and diabetes-specialist nurse	Coventry and Birmingham, UK	South Asians	1,2, 3	A BC
Bravis	2010	Ramadan-focused education on weight and hypoglycemic episodes during Ramadan	Brent, London, UK	Muslims	1,2	B C

Table 1(continued)

First author	Year	Interventions	Setting	Groups included	Chronic Care Components	Culturally competent components
Brown.	2005	Eight weekly 2 hours educational sessions followed by support sessions strategically held at 3,6, and 12 months	Starr County, Texas, USA	Mexican Americans	1,2	A B C
Brown.	2007	Eight weekly 2 hours educational sessions followed by support sessions strategically held at 3,6, and 12 months	Starr County, Texas, USA	Mexican Americans	1,2	A B C
Brown.	2011	Eight weekly 2 hours educational sessions followed by support sessions strategically held at 3,6, and 12 months	Starr County, Texas, USA	Mexican Americans	1,2	A B C
Culica	2008	Three 60-minutes individual education visits, which addressed recommended diabetes knowledge and self-management skills, followed by 60-minute quarterly assessment and case management visits	Dallas, USA	African Americans, Hispanics, Others	1,2	B C

Table 1(continued)

First author	Year	Interventions	Setting	Groups included	Chronic Care Components	Culturally competent components
De Peralta	2005	Diabetic education class, including bilingual educators, food models and education materials	Odessa, Texas, USA	Hispanics	1	A B
Ingram	2007	Promotora-driven intervention	US-Mexico border, USA	Mexican Americans	1,2	A C
Kattlemann	2009	Culturally adapted educational lessons based on the Medicine Wheel Model for Nutrition in addition to the usual dietary education	Western South Dakota, USA	Cheyenne River Sioux	1	A B D
Liebman	2007	Implementation of the Chronic Care model, including diabetes education classes, exercise class, chronic disease self-management classes, community health workers and individual consultations	Holyoke, Western Massachusetts, USA	Latino	1, 2, 3, 4, 5, 6	B C
Lorig	2008	Spanish self-management diabetes program with monthly automated telephone reinforcement	San Francisco Bay Area, USA	Spanish-speaking	1	A

Table 1(continued)

First author	Year	Interventions	Setting	Groups included	Chronic Care Components	Culturally competent components
Lujan	2007	Eight weekly, 2-hour, participative group classes and telephone follow-up	Texas-Mexico border, USA	Mexican Americans	1,2	B C
McCloskey	2011	Promotoras, grocery store tours, diabetes support groups, diabetes education in one-on-one sessions, physical activities and exercise instruction, smoking cessation classes, referrals to the Medication Assistance Program, referrals for health and social services	Hidalgo and Grant counties, New Mexico, USA	Hispanics & non-Hispanics	1,2	A B C D
Melkus	2010	Culturally relevant primary care nurse-led intervention of group diabetes self-management training and coping skills training	Southern New England, USA	Black American	1	A
Metgalchi.	2008	Diabetes education classes once a week during the 3-months study period	San Antonio, Texas, USA	Hispanics	1	A B D

Table 1(continued)

First author	Year	Interventions	Setting	Groups included	Chronic Care Components	Culturally competent components
Plockinger	2010	Diabetes management program	Berlin, Germany	Immigrants, Natives , Turkey, former Yugoslavia, Arabian peninsula, Russia, Poland, others, Greece, United Kingdom, India, South East Asia , Africa	1	B
Rosal	2011	Theory-based culturally tailored literacy-sensitive diabetes self-management intervention consisting of an intensive phase of 12 weekly sessions and a follow-up phase of 8 monthly sessions	Massachusetts, USA	Latino	1	A
Samuel-Hodges	2009	Church-based diabetes self-management education intervention, including individual counseling visits and group education sessions	North Carolina, USA	African Americans	1, 2	A E

Table 1(continued)

First author	Year	Interventions	Setting	Groups included	Chronic Care Components	Culturally competent components
Sequist.	2010	Cultural competency training and race-stratified performance for primary care clinicians on their awareness of racial disparities in diabetes care	Eastern Massachusetts, USA	Black, White	3, 4, 5	E
Toobert.	2011	Diabetes self-management program, including 2,5-day retreat followed by weekly meetings	North Carolina, USA	Latinas	1	A
Two,Feathers	2005	Community-based, culturally tailored diabetes lifestyle interventions, including education classes	East and Southwest Detroit, USA	Latino, African Americans	1	A B C
Uitewaal	2005	Diabetes education program + 7 individual educational sessions & 3 group sessions	"	Turkish	1,2	A B C D

Legend:

Chronic care components

1 Self-management support
2 Community resources and policies
3 Delivery system design
4 Clinical information systems
5 Decision support
6 Healthcare organization

Culturally competent components

A. Responsiveness
B. Communication
C. Use of peers
D. Ethnic concordance/ethnic matching
E. Training of providers in cultural competences

Characteristics of the interventions

Table 2 shows the characteristics of the selected interventions.

Table 2 Characteristics of the Selected Interventions

Characteristics of the Interventions	**Number of studies (N=25)**
Design of intervention	
Mixed (one-to-one intervention and group intervention)	10
Individual (one-to-one intervention)	8
Collective (group intervention)	7
Domains of the Chronic Care Model	
Self-management support	24
Community resources and policies	15
Delivery system design	6
Clinical information systems	4
Decision support	3
Healthcare organization	2
Culturally Competent components	
Responsiveness	18
Communication (without interpreters)	15
Use of peers	12
Ethnic concordance/ethnic matching	3
Interpreters	2
Training of providers in cultural competences	1
Levels concerned by the interventions	
Micro level	
Patients	23
Families and communities	17
Meso level	
Health professionals	10
Health services	7
Macro level	0

Ten interventions comprised a collective and an individual component such as individual telephone follow-ups and educational group sessions. Seven interventions were delivered to a group of patients while the eight remaining interventions were delivered via one-on-one interaction. When delivered to a group of patients, interventions were educational group sessions. These group sessions focused on self-management skills, exercise and physical activity, or lifestyle. Some sessions also included sharing the experiences with peers of health professionals. When delivered in one-on-one interaction, interventions consisted in individual education sessions, often combined with telephone follow-ups. Diabetes educators delivered interventions in nine studies while nurses were involved in eight studies. Interventions were also delivered by physicians (n=5) and dieticians (n=5).

Domains of Chronic Care Model

On average, each intervention included two domains of the Chronic Care model. Twenty-four interventions supported self-management by the patient. Fifteen interventions developed community resources and policies by hiring link workers (i.e. *promotoras*) or by developing partnerships with local associations such as churches. Six interventions modified the design of the delivery system by, for example, introducing a nurse case manager, synchronizing provider visits or using open-access scheduling. In four studies, interventions comprised the development of clinician information systems, mostly performance feedbacks. Three interventions aimed to support the decision-making process of the health professionals by, for example, introducing clinical guidelines. Two interventions modified the organization of health care by introducing team-based practices within the health care setting.

Culturally Competent components in the interventions

On average, each intervention displayed two culturally competent components. Eighteen interventions adapted an existing intervention to the specific needs of the patients and were thus included in the “responsiveness” category. In these cases, previously culturally blind interventions were adapted by including references to specific cultural norms of the patients' cultural background. Fifteen interventions involved specific attention to communication factors while three interventions targeted ethnic matching (also reported as ethnic concordance) between the provider of the intervention and the patients. Communication factors and ethnic matching were mainly used with Hispanic/Latino and South Asian patients. Ethnic matching occurred at the individual level in four studies. Matching occurred between the patients and their health educators in one study (Uitewaal et al., 2005) and between the patients and the dieticians in one study (Metghalchi et al., 2008). In two studies, matching occurred between the patients and the peers used to deliver the interventions (McCloskey, Tollestrup, & Sanders, 2011; Kattelmann, Conti, & Ren, 2010; Kattelmann, Conti, & Ren, 2009). Twelve interventions relied on patients' peers as culturally competent participants in the intervention. In five studies, peers received specific training to deliver the intervention to their counterparts. In eleven studies, peers were used as bridges between the health professionals and the patients to implement the interventions. More specifically, in two studies, peers were used to recruit participants. Five interventions used culturally adapted educational material and only two interventions involved a professional interpreter. Health professionals received cultural competence training in only one intervention; other training programs identified in the interventions were based on clinical issues.

Levels concerned by the interventions

On average, the interventions concerned two levels. At the micro level, 23 interventions mobilized the patients and 17 mobilized the families and the communities of the patients. Interventions mobilizing the communities and the families were interventions in which the patients were invited to bring a family member or a friend when receiving the intervention. Interventions mobilizing the communities and the families were also interventions taking place in relevant community-based locations (churches or community centers) rather than in hospitals or health services. At the meso level, ten interventions mobilized the health professionals and seven mobilized the health services. In one intervention, health professionals received a specific training to care for the patients. Health professionals were mobilized by the intervention when delivering themselves these interventions, as part of their current practice. Health services, as an organization, were mobilized when the intervention modified the procedures and needed an implication of all health professionals working in the service. It concerned, among others, interventions introducing clinical information systems or interventions providing additional time with a practice nurse. None of the interventions mobilized the macro level.

Domains of the Chronic Care Model where Culturally Competent components are present

Table 3 shows the correspondence between the domains of the CCM and the CC components in the 25 studies. As highlighted by the cross tabulation, one study may be quoted several times. The table is organized according to the CCM. Box 1 shows an example of the classification of the data for one study. We observed that self-management was mostly approached through CC responsiveness (n=19). Interventions were adapted to the cultural background of the patients. For example, Kattelmann and colleagues integrated the concept of the Medicine Wheel Nutrition in their intervention with the Cheyenne Sioux River (Kattelmann et al., 2009). In other interventions, patients received dietary advice integrating traditional recipes and culturally appropriate substitutes. When interventions integrated physical activity, they relied on forms of exercise more likely to be accepted by the patients, such as dance for African American women. Similarly, self-management was addressed through communication (n=14) and the use of peers (n=12). Leaflets and other education material were provided in the preferred language of the patients. Peers participated in or led the activities, with or without the support of health professionals. We also observed that community resources were approached through the use of peers (n=11), responsiveness (n=11) and communication (n=10). Indeed, some interventions relied on resources provided by religious communities to enroll patients in the interventions. Only one intervention included all six components of the CCM. This intervention aimed to implement the chronic care model for Latinos with diabetes (Box 1)

Box 1: Establishing Diabetes Self-Management in a Community Health Center Serving Low-Income Latinos (Liebman, J., Heffernan, D., & Sarvela P., 2007)

This intervention, led by Liebman and colleagues, aimed to improve the self-management of Type 2 DM among Latino patients. This intervention consisted of both culturally competent self-management activities and the implementation of the chronic care model within the community center. Culturally competent activities included the set-up of bilingual (Spanish/English) multisession activities: formal diabetes education classes, exercise classes and chronic disease self-management classes. These multisession activities were developed to answer the specific needs of the patients due to their sociocultural background and were thus categorized under 'responsiveness'. These activities were combined with individual interactions, such as consultations with a nurse and/or a nutritionist. Several informal drop-in sessions were also developed, e.g. breakfast and snack clubs. The intervention also involved community health workers and community mentors. Community mentors were considered to be peers: the intervention was thus categorized as 'using peers'.

In the project, the CCM was first implemented through the instauration of a team of doctors and nurses, an electronic register of the Type 2 DM patients, the development of medical protocols, specific training for clinicians and the implementation of an exercise program and nutritional counseling. Because of the involvement of leadership in the project, this intervention was classified within the dimension 'health care organization'. The instauration of the nursing/medical team was considered as part of the 'delivery system design' and the electronic register as an element of the 'clinician information system'. As the training concerned chronic care and not cultural issues, training of clinicians was not included in the CC training category but in the 'decision support' category of the CCM. The community health center then turned to self-management activities and community resources, allowing the classification of the intervention under 'self-management' and 'community resources'. In the self-management activities and community resources, specific attention was paid to the cultural background of the patients.

.

Table 3 Correspondence between the components of the Chronic Care Model and the Culturally Competent components in the interventions [1]

	Responsiveness	Communication factors	Use of peers	Ethnic concordance	Organisational factors	Training of health professionals
• Self-management support	19	14	12	3	3	0
• Community resources and policies	11	10	11	2	2	0
• Delivery system design	4	1	2	0	2	1
• Clinician information systems	2	1	2	0	0	1
• Decision support	2	1	2	0	0	1
• Healthcare organisation	1	0	1	0	1	0

[1] The same study could be cited several times.

Identification of the outcomes of the interventions

Our first objective was to assess whether culturally competent interventions reflect the dimensions of the Chronic Care Model framework. Our secondary objective was to assess whether these interventions were likely to improve the health outcomes of the patients. On average, the studies aimed to measure four outcomes. The multidimensional outcome measurement is congruent with a comprehensive perspective of health care delivery: Type 2 DM has multiple consequences and patients may accumulate several health problems. Besides the common outcome (HbA1c), the studies aimed to improve other diabetes-related outcomes: body mass index (n=12), blood pressure (n=11) and lipid profile (n=10). Interventions were also aimed at modifying psycho-behavioral outcomes: perception of self-efficacy (n=8), adherence to appropriate diabetes care (n=8), increase in physical activity (n=8), adhesion to healthy diet (n=7), health beliefs (n=6) and knowledge about diabetes (n=4). Five studies reported measures of diabetes-related quality of life and mental health outcomes such as depression. Three studies also evaluated the care process. Two studies reported the impact of interventions on health care consumption or drug prescriptions. Two studies presented a cost-evaluation of the interventions.

We initially tried to meta-analyze the results but the sensitivity tests were inconclusive because of the heterogeneity among the patients enrolled in the studies, the follow-up duration and other design issues. The chi-square test for heterogeneity was highly significant (coefficient value: 300.84 $p<0.0001$). The I^2 statistic had a value of 98.7%. Overall, all studies reported a reduction in HbA1c after the intervention. The reduction in HbA1c was greater in the six studies with a before/after design than in comparative studies comprising a control group. We also compared the reduction in HbA1c in studies comprising a follow-up period of 6 months or less (n=14) with studies comprising a follow-up period of over 6 months (n=11). The reduction in HbA1c was greater in studies with a follow-up period of 6 months or less than in studies with a follow-up period of over 6 months. Studies comprising both collective and individual components showed a greater reduction in HbA1c than studies of interventions comprising only one-on-one interactions.

Collective interventions showed a lesser reduction in HbA1c than interventions comprising only one-on-one interactions. Studies of interventions comprising one culturally competent component (n=7) showed a greater reduction in HbA1c than studies of interventions comprising two CC components (n=8) or studies with 3 or more CC components (n=10). Studies of interventions comprising only one CCM component (n=11) showed a greater reduction in HbA1c than studies of interventions comprising two or more CCM components (n=14).

We observed differences between studies concerning the level of HbA1c before the interventions. The lowest level of HbA1c prior to intervention was 7.4% (57mmol/mol) (Lorig, Ritter, Villa, & Piette, 2008), while the highest level of HbA1c prior to intervention was 11.8% (105mmol/ mol) (Brown et al., 2005). All interventions had a positive effect on the level of HbA1c. Of the reviewed studies, Beckham and colleagues achieved the greatest reduction in HbA1c with a decrease of 2.2 (baseline HbA1c 11.0% (97mmol/mol), post-intervention HbA1c 8.8% (73mmol/mol) (SD 1.7) after 6 months (Beckham, Bradley, Washburn, & Taumua, 2008). The intervention consisted of introducing community health workers into a community owned and operated health center. Anderson-Loftin and colleagues had a baseline mean level of HbA1c of 7.5% in a group of African Americans (n=49) and achieved a level of 7.0% (53 mmol/ mol) (SD 1.1) after 6 months (Anderson-Loftin et al., 2005). This intervention consisted of four weekly classes of dietetic education and five monthly peer-professional group discussions, combined with a weekly telephone follow-up. It included communication factors, was responsive in terms of the patients' cultural background of the patients and used peers. Culica and colleagues had a baseline mean level of HbA1c of 8.1% (65 mmol/ mol) and achieved a level of 7% (53 mmol/mol) (SD 1.06) after 12 months (Culica, Walton, Harker, & Prezio, 2008). In this study, patients came from various ethnic backgrounds (Table 1). The intervention developed by Culica and colleagues consisted of three one-hour individual educational visits and case management visits. The education visits addressed diabetes knowledge and self-management skills. Each visit was followed by a 60-minute quarterly assessment. This intervention took communication factors into account and used peers.

Discussion

This study aimed to assess whether or not the chronic care framework reflects culturally competent interventions targeting adults from ethnic minorities suffering from Type 2 diabetes mellitus. We performed a literature review and identified 25 papers that met our inclusion criteria. We observed that a low number of interventions were developed at the service level or institutional level. This could be a reporting bias. Authors may not have reported modifications at the service or institutional level. The impact of organizational interventions is more difficult to assess and to report (Ukoumunne, Gulliford, Chinn, Sterne, & Burney, 1999; Rychetnik, Frommer, Hawe, & Shiell, 2002). Using a clinical outcome as intervention outcome in our review may have prevented us from identifying studies with interventions at the service level. However, previous studies reported that interventions at the institutional/service level are still lacking for culturally competent health care and for chronic care (Stein, 2009).

We then identified two key results: (1) convergence between cultural competences and self-management and (2) convergence between cultural competences and community resources. Although the developers of the CCM recommend cultural competences as a dimension of the delivery system design, we observed the presence of cultural competence in the development of self-management aspects of the intervention. These interventions did not imply modification of the delivery system design: they were focusing on patients, with minimal emphasis on health services or on health professionals. These findings were supported by the review of Peek and colleagues (Peek, Cargill, & Huang, 2007). Improving self-management has been widely recommended as a way to improve adherence to treatment for patients suffering from Type 2 DM (Schechter & Walker, 2002). It follows therefore that interventions focused mainly on self-management components and integrated cultural competences into this specific aspect. Our findings indicate that the nature of the patient's needs tends to have an influence on the culturally competent components developed as part of the interventions. Along with specific medication and follow-up, self-management is considered to be one of the main components in the treatment of chronic diseases, especially of Type 2 DM (Bodenheimer et al., 2002a). As health services may not be able to cope with the increasing demand from chronically ill patients, the priority could be the empowerment of the patient. This could reduce the pressure on health professionals and limit the consequences of the chronic conditions from a public health perspective but also from economic, social and environmental perspectives (Nolte & McKee, 2008).

The second key result highlights that cultural competences has been developed within the “Communities and Policies” domain. Cultural competence components involve a collaborative approach: by linking communities and health care institutions, they may reinforce social cohesion. They also integrate the values and preferences of the community while delivering chronic care. The collaboration between health professionals and members of local churches constitute an interesting example of such a collaboration (Samuel-Hodges et al., 2006). However, the interventions we identified focused mainly on patients and their families and did not address health professionals or health services.

Why have so few interventions been developed for health professionals or at the level of the health care organization? Firstly, modifying health services and/or the health care setting requires the serious involvement of managers as well as funding to adapt health services to the specific situation of ethnic minority patients with Type 2 DM (Brach & Fraserirector, 2000; Kirmayer, 2012). Integrating a chronic care perspective into health services requires a similar commitment to organizational change and to improving practice by integrating culturally competent components. As well as the willingness of the health professionals to be more competent in intercultural and chronic care, the commitment of informal and formal leaders is essential at the service, managerial and political levels to develop and sustain projects. Developing chronic care or culturally competent care may result from demands of the patients but may also be influenced by political priorities (Nolte & McKee, 2008) or international incentives such as the Memorandum of the Council of Europe on Health Care in a Multicultural Society (18, 2006). The funding of health programs and health initiatives is part of the political process and needs a window of opportunity to receive the attention of policy makers (Shiffman & Smith, 2007). Secondly, to persist over time, organizational changes must be accepted and sustained by both health professionals and local communities (Grol & Wensing, 2004). Few interventions brought health professionals and local communities together in order to establish a strong partnership. Collaborative approaches between communities and health services may help to clarify the values and expectations of the health professionals and the patients (Wallerstein & Duran, 2006) and consequently lead to better adherence by the patient. To support the development of organizational changes, interventions should involve more participatory-based approaches in which both the community and the health professionals work to develop the health program together. This approach has already been used in health promotion projects (Wallerstein & Duran, 2006) and has shown promising results (Pazoki, Nabipour, Seyednezami, & Imami, 2007). Thirdly, health professionals may not be aware of the culturally competent approach or of chronic care management. Working within culturally competent and chronic care perspectives implies working within a patient-centered perspective (Bodenheimer et al., 2002a; Saha, Beach, & Cooper, 2008). The training of health professionals or at least improving their awareness about these issues is an essential step in the development of a health system providing culturally competent chronic care (Kirmayer, 2012).

This literature review has some limitations. First, eligibility was limited to English, Spanish, Dutch or French language publications and to published indexed studies. It is likely that more interventions on Type 2 DM exist that have not been published. However, some have suggested that these limitations do not substantially affect the results of reviews (Egger, Juni, Bartlett, Holenstein, & Sterne, 2003). We are aware that a publication bias could occur, as is the case with all literature reviews. A more extensive search might have identified more diverse literature than we have found, but our findings are quite representative of the field of Type 2 DM interventions.

This review focused on a specific chronic condition. This may prevent the extrapolation of conclusions to situations involving other chronic diseases and comorbidities. Type 2 DM is traditionally acknowledged as condition affecting adults, although the mean age of newly-diagnosed patients is decreasing (Fagot

Campagna et al., 2000). Perspectives could be different for chronic conditions diagnosed in childhood, such as Type 1 DM, or environment-based chronic diseases such as asthma (Bailey et al., 2009).

The organization of the health system may also play a role in the development of interventions at service level. We did not take national health systems into account in our analysis. In some countries, the health care organization acknowledges chronic care as a basic component of its system while, in other countries, integration of chronic care in health services has just begun, as highlighted in the 2011 WHO report (World Health Organisation, 2011). The same is observed for culturally competent care: some health systems are pioneers in the development of culturally competent care, while other countries still need to integrate intercultural care into their health policies (Lorant & Bhopal, 2010). Local and national contexts must, therefore, be key elements of further studies aimed at assessing both chronic care and culturally competent care.

Our review aimed to assess whether or not CC interventions reflect the CCM. It is true that our search strategy did not identify a sample of papers addressing the CCM and Type 2 DM among which we might have appraised of the existence of CC components. Our reasons were, firstly, that the basic principles of current models of cultural competence emphasize that attention should be given to cultural and linguistic traits within all dimensions of health care. Therefore, if models of cultural competence are coherent with the CCM, which they should be, they should reflect the different domains of the CCM. Secondly, CC interventions, worldwide, are generally focused on targeted groups: it is unlikely that studies of the chronic care model in the general population would consider these groups. Indeed, the landmark studies of such models rarely refer to the ethnicity or race of the participants (Bodenheimer et al., 2002a; Bodenheimer et al., 2002b; Pearson et al., 2005; Tsai et al., 2005). Further research should focus on CCM interventions for Type 2 DM and appraise the existence of CC within these interventions.

To our knowledge, this study is one of the first to use the Chronic Care Model framework to shed light on the targets of culturally competent interventions for ethnic minorities with Type 2 DM. We believe that, despite the effectiveness of the interventions featured in the published studies at controlling HbA1c, there is room for improvement. The scope of culturally competent interventions could be expanded to transform health care organizations and systems. This implies the involvement of clinical leaders and policy makers.

Declaration of conflicting interests The author(s) declare no conflicts of interest with respect to the authorship and/or publication of this article.

Funding Marie Dauvrin received a research fellow grant from the Fonds de la Recherche Scientifique-FNRS of Belgium. The sponsor has had no involvement in the study design, data collection, data analysis, manuscript preparation and/or publication decisions.

Acknowledgements The authors would like to warmly thank Marie France Libion (MFL) for her substantial contribution to the data analysis and the two anonymous reviewers for their valuable comments.

Technical Appendix of the literature review

Main category	Detailed content of the category
General information	
Researcher identification	
Date of data extraction	
Identification features of the study	Record number
	Article title
	Authors
	Year of publication
	Country of origin
	Discipline of the journal
	Journal name
	Citation
	Source of funding

Technical Appendix of the literature review

Study characteristics
Objectives
Study design
Study inclusion criteria
Study exclusion criteria

Participants characteristics

Socioeconomic status	Place of residence
	Occupation
	Insurance
	Religion
	Income
	Gender
	Education
	Social Capital
	Marital status
	Age
	Disability
Ethnicity	Continental and/or national mixed identity
	Racial and national mixed identity
	Geographic provenance
	Nationality
	Tribal affiliation
	Cultural reference
	Reading literacy
	Self-reported race/identification
	Genetic
	Religion
	Primary language
	Language spoken home
	Preferred language
	Place of birth

	Acculturation level Length of stay in the host country
Number of participants in the intervention group Number of participants in the control group when relevant	
Intervention(s) and setting	
Setting	
Content of the intervention	
Chronic Care Model components	
• Decision support	care management roles team practice care delivery/coordination proactive follow-up planned visits visit system change
• Community resources and policies	for patients for community
• Self-management support	patient education patient activation/psychosocial support self-management assessment self-management support collaborative decision making with patients
• Clinician information systems	guidelines available to patients patient registry system use of information for care management provision of performance data
• Delivery system design	Institutionalization of guidelines, prompts, protocols provider education expert consultation support
• Healthcare organization	leadership support provider participation coherent system improvement

Technical Appendix of the literature review

Culturally competent components	
• Communication-related factors	Language concordance between patient and those delivering the intervention
	Language matching between patient and those delivering the intervention
	Use of interpreters (professional)
	Use of intercultural mediators
• Concordance / matching	Racial concordance between patients and those delivering the intervention
	Ethnic concordance between patients and those delivering the intervention
• Responsiveness-related components	Cultural adaptation of the content of the intervention
	Cultural adaptation of the tools / educational material
• Use of peers	Use of peers to deliver the intervention
	Use of community health workers / lay advisors/ members of the community
	Use of peers to provide the intervention in an adequate language
• Training-related components	Diversity training for health professionals
	Attitudes and behaviors training for health professionals -> patient centered care e.g.
• Organizational-related components	Institutional policy towards diversity
	Race-based tracking / reminder systems
	Delivering the intervention in culturally relevant settings (church e.g.)
	Organizational incentives for health professionals
	Organizational incentives for patients
	Access-related components

Technical Appendix of the literature review

Dimensions of the interventions	collective intervention
	one-to-one intervention
Levels mobilized by the interventions	micro level: patient
	meso level: health professionals
	meso level: health services
	macro level: health system
	macro level: other systems
Providers involved in the interventions	Nurses
	Physicians
	Community link worker/Promotora/peer Educators
	Dietician/nutritionists
	Integrated care managers
	Social workers
	Pharmacists
	Other
Outcomes of the interventions	HbA1c
	Clinical outcomes
	Psychobehavioural outcomes
	Healthcare consumption
	Healthcare costs
Outcome data /results	
Unit of assessment / analysis	
Statistical techniques used	
For each outcome	whether reported
	definition used in the study
	measurement tool / method used
	unit of measurement
	length of follow-up
	number of follow-up measurements

	times of follow-up measurements
	reference value of the outcome
For each patient group	number of patients enrolled
	number of patients included in the analysis
	number of withdrawals, exclusions, lost to follow up
	dichotomous / continuous outcome
	baseline value of the outcome + precision estimator (e.g. mean and standard deviation)
	value of the outcome post intervention + precision estimator
	effect size + precision estimator when available

Reference List

- Abouzeid, M., Philpot, B., Janus, E. D., Coates, M. J., & Dunbar, J. A. (2013). Type 2 diabetes prevalence varies by socio-economic status within and between migrant groups: Analysis and implications for Australia. *BMC Public Health, 13*(1).
- Anderson-Loftin, W., Barnett, S., Bunn, P., Sullivan, P., Hussey, J., & Tavakoli, A. (2005). Soul food light: culturally competent diabetes education. *The Diabetes Educator, 31*(4), 555-563.
- Bailey, E., Cates, C., Kruske, S., Morris, P., Brown, N., & Chang, A. (2009). Culture-specific programs for children and adults from minority groups who have asthma. *Cochrane Database of Systematic Reviews,*(2).
- Beckham, S., Bradley, S., Washburn, A., & Taumua, T. (2008). Diabetes Management: Utilizing Community Health Workers in a Hawaiian/Samoan Population. *Journal of Health Care for the Poor and Underserved, 19*(2), 416-427.
- Bell, R. A. (2011). Barriers to diabetes prevention and control among American Indians. *North Carolina medical journal, 72*(5), 393-396.
- Bellary, S., Paul O'Hare, J., Raymond, N. T., Mughal, S., Hanif, W. M., Jones, A. et al. (2010). Premature cardiovascular events and mortality in south Asians with type 2 diabetes in the United Kingdom Asian Diabetes Study effect of ethnicity on risk. *Current Medical Research and Opinion, 26*(8), 1873-1879.
- Betancourt, J. R., Green, A. R., Carrillo, J. E., & Ananeh-Firempong II, O. (2003). Defining cultural competence: A practical framework for addressing racial/ethnic disparities in health and health care. *Public Health Reports, 118*(4), 293-302.

- Bischoff, A. (2003). *Caring for migrant and minority patients in European hospitals. A review of effective interventions* Basel, Neuchatel: Swiss Forum for Migration and Populations studies.
- Bodenheimer, T., Wagner, E. H., & Grumbach, K. (2002a). Improving primary care for patients with chronic illness. *Journal of the American Medical Association, 288*(14), 1775-1779.
- Bodenheimer, T., Wagner, E. H., & Grumbach, K. (2002b). Improving primary care for patients with chronic illness: The chronic care model, Part 2. *Journal of the American Medical Association, 288*(15), 1909-1914.
- Brach, C., & Fraserirector, I. (2000). Can cultural competency reduce racial and ethnic health disparities? A review and conceptual model. *Medical Care Research and Review, 57*(SUPPL. 1), 181-217.
- Brinks, R., Tamayo, T., Kowall, B., & Rathmann, W. (2012). Prevalence of type 2 diabetes in Germany in 2040: Estimates from an epidemiological model. *European Journal of Epidemiology, 27*(10), 791-797. Retrieved from
- Brown, S. A., Blozis, S. A., Kouzekanani, K., Garcia, A. A., Winchell, M., & Hanis, C. L. (2005). Dosage Effects of Diabetes Self-Management Education for Mexican Americans. *Diabetes Care, 28*(3), 527-532.
- Campbell, J. A., Walker, R. J., Smalls, B. L., & Egede, L. E. (2012). Glucose control in diabetes: the impact of racial differences on monitoring and outcomes. *Endocrine, 42*(3), 471-482.
- Campinha-Bacote, J. (2002). The Process of Cultural Competence in the Delivery of Healthcare Services: A Model of Care. *Jounal of Transcultural Nursing, 13*(3), 181-184.
- Chen, L., Magliano, D. J., & Zimmet, P. Z. (2012). The worldwide epidemiology of type 2 diabetes mellitus - Present and future perspectives. *Nature Reviews Endocrinology, 8*(4), 228-236.
- Coleman, K., Austin, B., Brach, C., & Wagner, E. (2009). Evidence On The Chronic Care Model In The New Millennium. *Health Affairs, 28*(1), 75-85.
- Culica, D., Walton, J., Harker, K., & Prezio, E. (2008). Effectiveness of a community health worker as sole diabetes educator: comparison of CoDE with similar culturally appropriate interventions. *Journal of Health Care for the Poor and Underserved, 19*(4), 1076-1095.
- Egger, M., Juni, P., Bartlett, C., Holenstein, F., & Sterne, J. (2003). How important are comprehensive literature searches and the assessment of trial quality in systematic reviews? Empirical study. *Health Technology Assessment, 7*(1). Retrieved from
- Fagot Campagna, A., Pettit, D., Engelgau, M., Burrows, N., Geiss, L., & Gregg, E. (2000). Type 2 diabetes among North adolescents: An epidemiologic health perspective. *The Journal of Pediatrics, 136*(5), 664-672.

- Garduño-Diaz, S. D., & Khokhar, S. (2012). Prevalence, risk factors and complications associated with type 2 diabetes in migrant South Asians. *Diabetes/Metabolism Research and Reviews, 28*(1), 6-24.
- Gholap, N., Davies, M., Patel, K., Sattar, N., & Khunti, K. (2011). Type 2 diabetes and cardiovascular disease in South Asians. *Primary Care Diabetes, 5*(1), 45-56.
- Gonzales, K. L., Harding, A. K., Lambert, W. E., Fu, R., & Henderson, W. G. (2013). Perceived Experiences of Discrimination in Health Care: A Barrier for Cancer Screening Among American Indian Women with Type 2 Diabetes. *Women's Health Issues, 23*(1), e61-e67.
- Griner, D., & Smith, T. B. (2006). Culturally adapted mental health intervention: A meta-analytic review. Special issue: Culture, race, and ethnicity in psychotherapy. *Psychotherapy, 43*(4), 531-548.
- Grol, R., & Wensing, M. (2004). What drives change? Barriers to and incentives for achieving evidence-based practice. *The Medical Journal of Australia, 180*(6S), S57-S60.
- Gujral, U. P., Echouffo-Tcheugui, J. B., & Narayan, K. V. (2011). Commentary: Trends in prevalence of type 2 diabetes and prediabetes in South Asians-does it tell a story? *International Journal of Epidemiology, 40*(6), 1554-1555.
- Henderson, S., Kendall, E., & See, L. (2011). The effectiveness of culturally appropriate interventions to manage or prevent chronic disease in culturally and linguistically diverse communities: A systematic literature review. *Health and Social Care in the Community, 19*(3), 225-249.
- Holman, N., Forouhi, N. G., Goyder, E., & Wild, S. H. (2011). The Association of Public Health Observatories (APHO) Diabetes Prevalence Model: Estimates of total diabetes prevalence for England, 2010-2030. *Diabetic Medicine, 28*(5), 575-582.
- James, G. D., Baker, P., Badrick, E., Mathur, R., Hull, S., & Robson, J. (2012). Ethnic and social disparity in glycaemic control in type 2 diabetes; Cohort study in general practice 2004-9. *Journal of the Royal Society of Medicine, 105*(7), 300-308.
- Kanaya, A. M., Adler, N., Moffet, H. H., Liu, J., Schillinger, D., Adams, A. et al. (2011). Heterogeneity of diabetes outcomes among Asians and Pacific Islanders in the U.S.: The diabetes study of Northern California (DISTANCE). *Diabetes Care, 34*(4), 930-937.
- Kattelmann, K. K., Conti, K., & Ren, C. (2009). The medicine wheel nutrition intervention: a diabetes education study with the Cheyenne River Sioux Tribe. *J Am Diet Assoc, 109*(9), 1532-1539.
- Kattelmann, K. K., Conti, K., & Ren, C. (2010). The Medicine Wheel nutrition intervention: a diabetes education study with the Cheyenne River Sioux Tribe. *J Am Diet Assoc, 110*(5 Suppl), S44-S51.

- Kim, G., Ford, K. L., Chiriboga, D. A., & Sorkin, D. H. (2012). Racial and ethnic disparities in healthcare use, delayed care, and management of diabetes mellitus in older adults in California. *Journal of the American Geriatrics Society, 60*(12), 2319-2325.
- Kim-Godwin, Y. S., Clarke, P. N., & Barton, L. (2001). A model for the delivery of culturally competent community care. *Journal of Advanced Nursing, 35*(6), 918-925.
- Kirmayer, L. J. (2012). Rethinking cultural competence. *Transcultural Psychiatry, 49*(2), 149-164.
- Kountz, D. (2012). Special considerations of care and risk management for African American patients with type 2 diabetes mellitus. *Journal of the National Medical Association, 104*(5-6), 265-273.
- Liebman, J., Heffernan, D., & Sarvela, P. (2007). Establishing Diabetes Self-Management in a Community Health Center Serving Low-Income Latinos. *The Diabetes Educator, 33*(S6), 132S-138S.
- Long, Y., Gracely, E. J., Newschaffer, C. J., & Liu, L. (2013). Analysis of the prevalence of cardiovascular disease and associated risk factors for European-American and African-American populations in the state of Pennsylvania 2005-2009. *American Journal of Cardiology, 111*(1), 68-72.
- Lorant, V., & Bhopal, R. (2010). Comparing policies to tackle ethnic inequalities in health: Belgium 1 Scotland 4. *European Journal of Public Health, 21*(2), 235-240.
- Lorig, K., Ritter, P., Villa, F., & Piette, J. (2008). Spanish diabetes self-management with and without automated telephone reinforcement: two randomized trials. *Diabetes Care, 31*(3), 408-414.
- McCloskey, J., Tollestrup, K., & Sanders, M. (2011). A community integration approach to social determinants of health in New Mexico. *Fam Community Health, 34 Suppl 1*, S79-S91.
- Metghalchi, S., Rivera, M., Beeson, L., Firek, A., De, L. M., Balcazar, H. et al. (2008). Improved clinical outcomes using a culturally sensitive diabetes education program in a Hispanic population. *Diabetes Educ, 34*(4), 698-706. doi:34/4/698 [pii];10.1177/0145721708320913 [doi]. Retrieved from PM:18669812
- Nolte, E., & McKee, M. (2008). *Caring for people with chronic conditions. A health system perspective.* (Open University Press ed.). Oxford.
- Parker, M. M., Moffet, H. H., Schillinger, D., Adler, N., Fernandez, A., Ciechanowski, P. et al. (2012). Ethnic differences in appointment-keeping and implications for the patient-centered medical home-findings from the diabetes study of Northern California (DISTANCE). *Health Services Research, 47*(2), 572-593.
- Pazoki, R., Nabipour, I., Seyednezami, N., & Imami, S. (2007). Effects of a community-based healthy heart program on increasing healthy women's physical

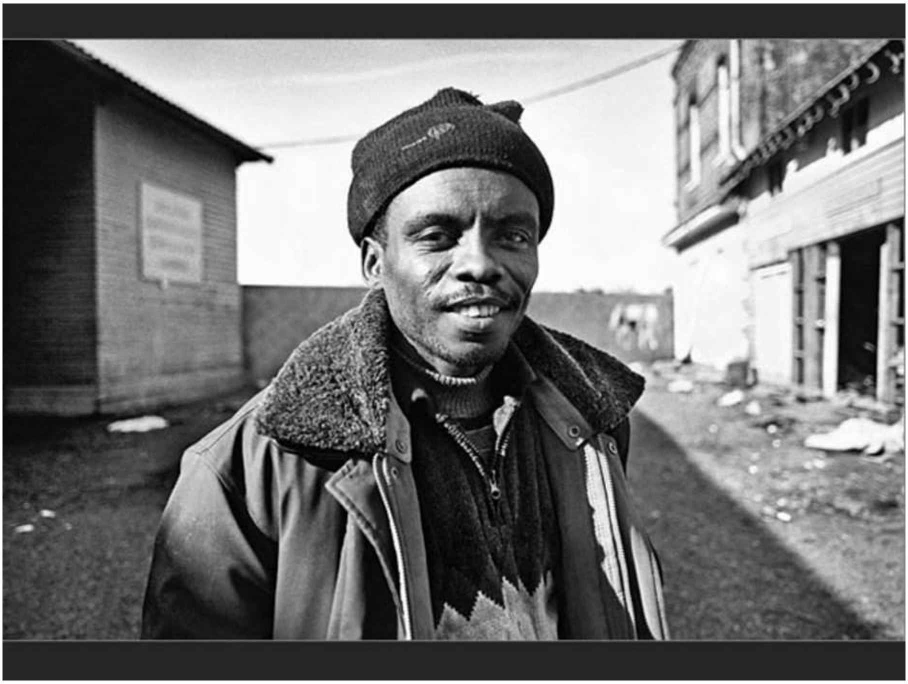
activity: a randomized controlled trial guided by Community-based Participatory Research (CBPR). *BMC Public Health, 7*(216).

- Pearson, M., Wu, S., Schaefer, J., Bonomi, A., Shortell, S., Mendel, P. et al. (2005). Assessing the implementation of the chronic care model in quality improvement collaboratives. *Health Services Research, 40*(4), 978-996.
- Peek, M., Cargill, A., & Huang, E. (2007). Diabetes Health Disparities: A systematic Review of Health Care. *Medical Care Research and Review, 64*(5Suppl), 101S-156S.
- Pieterse, A. L., Todd, N. R., Neville, H. A., & Carter, R. T. (2012). Perceived racism and mental health among black american adults: A meta-analytic review. *Journal of Counseling Psychology, 59*(1), 1-9.
- Renzaho, A. M. N., Romios, P., Crock, C., & Sonderlund, A. L. (2013). The effectiveness of cultural competence programs in ethnic minority patientcentered health care-a systematic review of the literature. *International Journal for Quality in Health Care, 25*(3), 261-269.
- Rychetnik, L., Frommer, M., Hawe, P., & Shiell, A. (2002). Criteria for evaluating evidence on public health interventions. *J Epidemiol Community Health, 56*, 119-127.
- Saha, S., Beach, M., & Cooper, L. (2008). Patient Centeredness, Cultural Competence and Healthcare Quality. *J Natl Med Assoc, 100*(11), 1275-1285.
- Samuel-Hodges, C., Keyserling, T., France, R., Ingram, A., Johnston, L., Pullen Davis, L. et al. (2006). Church-based Diabetes Self-management Education Program for African Americans With Type 2 Diabetes. *Preventing Chronic Diseases, 3*(3), A93.
- Schechter, C., & Walker, E. (2002). Improving Adherence to Diabetes Self-Management Recommendations. *Diabetes Spectrum, 15*(3), 170-175.
- Shiffman, J., & Smith, S. (2007). Generation of political priority for global health initiatives: a framework and case study of maternal mortality. *The Lancet, 370*, 1370-1379.
- Sims, M., Diez Roux, A. V., Boykin, S., Sarpong, D., Gebreab, S. Y., Wyatt, S. B. et al. (2011). The Socioeconomic Gradient of Diabetes Prevalence, Awareness, Treatment, and Control Among African Americans in the Jackson Heart Study. *Annals of Epidemiology, 21*(12), 892-898.
- Stein, K. (2009). Cultural Competency: Where It Is and Where It's Headed. *Journal of the American Dietetic Association, 109*(3), 388.
- Tsai, A., Morton, S., Mangione, C., & Keeler, E. (2005). A Meta-analysis of Interventions to Improve Care for Chronic Illnesses. *The American Journal of Managed Care, 11*(8), 478-488.
- Uitewaal, P. J., Voorham, A. J., Bruijnzeels, M. A., Berghout, A., Bernsen, R. M., Trienekens, P. H. et al. (2005). No clear effect of diabetes education on glycaemic

control for Turkish type 2 diabetes patients: a controlled experiment in general practice. *Neth J Med, 63*(11), 428-434. Retrieved from PM:16397311

- Ukoumunne, O., Gulliford, M., Chinn, S., Sterne, J., & Burney, P. (1999). Methods for evaluating area-wide and organisation-based interventions in health and health care: a systematic review. *Health Technology Assessment, 3*(5), iii-92.
- Vandenheede, H., & Deboosere, P. (2009). Type 2 diabetes in Belgians of Turkish and Moroccan origin. *Archives of Public Health, 67*(2), 62-87.
- Wallerstein, N., & Duran, B. (2006). Using Community-Based Participatory Research to Address Health Disparities. *Health Promotion Practice, 7*, 312-323.
- Weingarten, S., Henning, J., Badamgarav, E., Knight, K., Hasselblad, V., Gano, A. J. et al. (2002). Interventions used in disease management programmes for patients with chronic illness-which ones work? Meta-analysis of published reports. *BMJ, 325*(7370), 925.
- Wilson, C., Alam, R., Latif, S., Knighting, K., Williamson, S., & Beaver, K. (2012). Patient access to healthcare services and optimisation of self-management for ethnic minority populations living with diabetes: A systematic review. *Health and Social Care in the Community, 20*(1), 1-19.
- World Health Organisation. (2011). *Non-Communicable Diseases. Countries Profile 2011.* Geneva.
- Zheng, Y., Lamoureux, E. L., Chiang, P. C. P., Anuar, A. R., Ding, J., Wang, J. J. et al. (2012). Language barrier and its relationship to diabetes and diabetic retinopathy. *BMC Public Health, 12*(1).

SECOND PART



Cultural Competence

in Health Services in Belgium

Results from the COMETH Study

CHAPTER 3: Responsibility of health professionals in adapting health services to migrant needs

The chapter 3 presents the first study based on the data collected in the COMETH project. In this first study, we surveyed health professionals’ views on their responsibility to adapt health services to migrant needs.

- Dauvrin M, Lorant V. Adaptation of health care to immigrants: whose responsibility? *Submitted at BMC Health Service Research on June, 12 2013.*

This chapter was presented as oral communications at:

- Dauvrin M, Lorant V. *Competences in Ethnicity and Health: Responsibility towards adaptation of health care*. Journée des Doctorants, Ecole Doctorale Thématique "Santé Publique, Santé et Société", Liège (Belgium), November 2012
- Dauvrin M. *Soins dans un contexte de multiculturalité. Quels défis éthiques ?* Midis de la Bioéthique, Woluwé Saint Lambert (Belgium), December 2012.

Adaptation of health care to immigrants: whose responsibility?

Background

In a context of increasing diversity, culturally competent strategies have been recommended to improve care quality and access to health care for ethnic minorities; their implementation by health professionals, however, has remained patchy. Most programmes of cultural competences assume that health professionals accept have a responsibility to adapt to immigrants, but this assumption has often remained at the level of theory. In this paper, we surveyed health professionals' views on their responsibility to adapt.

Methods

Five hundred-and-sixty-nine health professionals from twenty-four inpatient and outpatient health services were selected according to their geographic location. All health care professionals were requested to complete a questionnaire about who should adapt to cultural diversity: health professionals or patients. We performed a factorial analysis to identify the underlying responsibility dimensions. We performed a multilevel regression model in order to investigate individual and service covariates of responsibility attribution.

Results

Three dimensions emerged from the factor analysis: communication, negotiation of values, and health beliefs. Our results showed that the sense of responsibility for the adaptation of health care depended on the nature of the adaptation required: when the adaptation directly concerned communication with the patient, health professionals declared that they should be the ones to adapt; in relation to cultural preferences, however, the responsibility was seen to fall on the patient's shoulders. Most respondents were unclear in relation to adaptation to health beliefs. Regression indicated that being Belgian, not being a physician, and working in a primary-care service were associated with placing the burden of responsibility on the patient.

Conclusions

Health care professionals do not consider it to be their responsibility to adapt to cultural diversity. If health professionals do not feel a responsibility to adapt, they are less likely to be involved in culturally competent health care.

Keywords

Responsibility, cultural competences, health professionals, factor analysis, multilevel model, negotiation, communication, health beliefs

Background

The increasing diversity of populations in Europe has transformed the delivery of health care and the habits of health professionals [1]. Health professionals are required to adapt to specific demands by immigrant patients in order to lower linguistic or cultural barriers that prevent these groups from accessing adequate care [2, 3]. This adaptation requirement is reinforced by the international and national recommandations. In an increasingly multicultural Europe, health systems, health services, and health professionals are under pressure to become immigrant-friendly [4-7]. Indeed, the Committee of Ministers of the Council of Europe [7] recommended that *"the governments of the member states promote the involvement and participation of all parties concerned (researchers, policy makers, local health authorities, health professionals, representatives of ethnic minority groups and non-governmental organisations) in the planning, implementation and monitoring of health policies for multicultural populations"*. This involves a wide range of strategies: health policies, the deployment of interpreters and intercultural mediators in health facilities, the development of culturally-specific health services or ethnically sensitive health promotion campaigns, etc. [8-11]. All these strategies concern the individual, institutional, and political levels and interact in order to reduce the gap between immigrant and non-immigrant populations [12-14].

However, despite efforts to implement and broaden these strategies, disparities still persist in quality of care and access to health care for ethnic minorities [15-18]. Immigrants and ethnic minorities still have lower levels of access to health promotion facilities and health prevention [19, 20]. They also experience worse health outcomes in acute [21] and chronic conditions, such as type 2 diabetes mellitus [22] and asthma [23]. This leads to temporary or permanent complications, increasing the burden of diseases among these vulnerable groups: e.g. higher rates of amputations due to inadequate management of type 2 diabetes mellitus have been reported among ethnic minorities [24].

One way to reduce these ethnic inequities is to make health professionals modify their attitudes and become culturally competent [11, 13]. Becoming culturally competent involves a broad spectrum of interventions and strategies, requiring various degrees of adaptation, from marginal changes to radical ones [8, 9, 25-28]. It also requires health professionals to acknowledge their responsibility to provide solutions. Awareness of diversity and being aware that a solution is needed are the first two steps in most models of cultural competences [29-32]. Most programmes aimed at developingcultural competences focus on health professionals or the health system as the actors responsible for adaptation [29, 32, 33, 34]. These programmes assume that once health professionals are aware of the need for cultural competences, they also feel a responsibility to adapt their behaviour. This assumption has often remained at the level of theory and it is still unclear whether, culturally, health professionals feel responsible for the entire process of adaptation to diversity or whether they feel that this responsibility is shared with patients. In the patient-health professional encounter, the health professional is the person who is most knowledgeable about clinical matters and technical interventions, because the health professional has been trained in these fields. However, when it comes to the attitudes and behaviour of health professionals in terms of empathy, kindness, a sense of responsibility, and patient-centeredness, it is generally assumed that those attitudes and kinds of behaviour are intrinsic to the persons concerned and are not attitudes learned during training [35]. In this study, we set out to assess whether health professionals feel responsible to adapt health services to cope with a multicultural society. We carried out a survey of health professionals in order to describe who feels responsible to adapt in health care situations that involve cultural diversity.

Methods

Design and participants

This study is part of a larger research project – COMETH (Competences in Ethnicity and Health) – that aims to evaluate and understand the cultural competences of health professionals in Belgium. We used a purposive sampling model where the unit of sampling was the health service. First, we selected three geographical zones, according to the number of foreign residents, in Brussels and Wallonia (Belgium) [36]. The zones were sorted into three categories: low exposure to immigration, medium exposure, and high exposure according to the geographical distribution of the foreign population.

In a second step, inside each geographical zone, we selected the largest hospital, according to the number of hospital beds, and the largest primary care services, according to the annual number of registered patients. Inside each hospital, we then selected at least four services: a chronic patient-centred care service, an acute patient-centred care service, a chronic non-patient-centred care service, and an acute non-patient-centred care service [37-39].

Two hospitals and one primary care service declined participation in the project. Two hospitals did not have a communicable diseases unit. In one hospital, the psychiatric unit declined to participate in the project due to an internal reorganisation at the time of the study. We ended up with 5 primary care services and 4 hospitals, including 19 inpatient health services. The 19 inpatient health services were: 4 geriatric units, 4 intensive care units, 4 oncology units, 3 psychiatric units, 2 communicable diseases units, 1 palliative care unit, and 1 endocrinology unit.

All health professional and volunteers working in the service were invited to participate in the research. Preliminary consent was obtained from the management of each institution. We then met the physician and the nurse in charge of each selected service to obtain further consent. When this consent was delivered, we met the whole team to present the project and asked them for their consent. Participants were free to withdraw their consent at each step of the data collection process.

Data were collected with a self-administered questionnaire from June 2010 to June 2012[14]. Participants had one month to complete the questionnaire. Reminder mailings were sent to the head nurse and the doctor-in-chief of each service each week during the one-month data collection period.

---

[14] The French version of the questionnaire is in appendix of the manuscript.

This study was reported declared at the Hospital University Ethics Committee of the Université Catholique de Louvain and at Belgium's national Privacy Commission (Ordinary Declaration No. 1304326281174).

Measures

Our dependent variable was the relative sense of responsibility for adaptation of health care. We used and adapted the scale of relative responsibility developed and validated by Hudelson and colleagues in Switzerland [40]. The scale of relative responsibility contains 5 semantic differential items (additional file 1): adaptation to the values of the host country, the provision of interpreters, patient's wishes to be treated by a male or a female doctor, the provision of written information in a language acceptable to the patient, and adaptation to health beliefs. Each item ranges from 1 to 7, 1 meaning full agreement that adaptation is the responsibility of the health professional and 7 meaning full agreement that adaptation is the responsibility of the patient. The respondents were asked to take a position on whether the adaptation was the responsibility of the patient or the responsibility of the health professional.

The psychometric properties of the scale and the similarities between the Belgian and Swiss contexts were decisive in its adoption as an instrument for data collection. The Cronbach's α coefficient of the scale was 0.65. The test-retest intra-class correlation coefficient was 0.83 (CI95% 0.78-0.88). We obtained the consent of Patricia Hudelson to use her scale.

Our independent variables included objective and subjective exposure to immigrant and ethnic minority groups, individual sociodemographic factors, and service-level factors. Objective exposure was measured by the localisation of the service in geographical zones with low exposure to immigration, medium exposure, or high exposure. Subjective exposure was measured by the frequency of exposure to intercultural situations as experienced by the health professionals. We developed a specific scale, adapted to the Belgian context. This scale was based on previous surveys in Belgium and Europe [41-43]. We performed specific factor analysis for the scale of subjective exposure to obtain final variables for analysis.

The development of the scale is beyond the scope of this paper and is not presented here.

The individual sociodemographic factors were gender (male/female), age (mean age and by categories), nationality (Belgian, EU 27-European, and non-European), languages spoken (national Belgian languages, i.e. French and Dutch, other European languages, and non-European languages), country of birth (Belgium, EU 27-European, and non-European), country of childhood (Belgium, EU 27-European, and non-European), and languages spoken with parents (national Belgian languages, i.e. French and Dutch, other European languages, and non-European languages). Professional characteristics were: professional qualification (nurses or care assistants, physicians, allied health professionals, administrative and social workers – including social assistants, volunteers and faith assistants), work-time (full-time versus part-time), years of experience (by categories), additional training (additional qualification for nurses or physicians) , culturally competent education (at school, at the hospital, or by personal choice), professional experience abroad (EU 27-European and non-European), and additional functions in the service: head of service, clinical referent, non-clinical referent (e.g. informatics), student supervisor, others.

Service-level factors were the paradigm of care (patient-centred care versus non-patient centred care), the length of stay (acute unit versus chronic unit), the type of service (intensive care, geriatrics, psychiatry, oncology, including the palliative care and endocrinology units, communicable diseases units, and primary care services), and the institution.

Analysis

The analysis unfolded in three stages. First, we computed descriptive statistics. Second, we did a factorial analysis to analyse the correlations across the relative responsibility items. We also used factor analysis to convert the items into a continuous score of relative responsibility. After the factor analysis, we tested the normality of the distribution of the factors and decided to conserve the loading factors in the further analysis. Finally, we regressed the dependent variables resulting from the factor analysis on independent variables at the individual and institutional levels. We included all the variables in a regression model with a stepwise procedure to select the significant variables (at alpha=10%) in the final analysis. Based on the results of the regression model, we fitted a mixed regression model to capture within-service and within-institution clustering. Sixteen observations had missing values and were not included in the regression models. Analyses were made with the SAS 9.2 software.

Results

We contacted 872 members of the staff of the 24 services and we received 569 replies, yielding a participation rate of 65%. Most of the respondents were nurses or care assistants (59.7%, see Table 1), administrative and social workers (16%), physicians (12.3%), and allied health professionals (12%). Most of the respondents were Belgian. Sixteen per cent of the participants had a high level of exposure to immigrant patients.

Table 1: Sociodemographic characteristics of the health professionals of the COMETH study conducted in Belgium in 2010-2012 (n=569)

	Number	**(%)**
Profession		
Nurses and care assistants	340	59.7
Administrative and social staff	91	16.0
Physicians and medical assistants	70	12.3
Allied health professionals	68	12.0
Sex		
Women	448	78.7
Men	121	21.3
Age groups (years)		
20-29 y	144	25.3
30-39 y	154	27.1
40-49 y	140	24.6
50-59 y	104	18.3
60y and more	27	4.7

Table 1 (continued)

	Number	(%)
Objective exposition to migration		
Low	250	43.9
Medium	228	40.1
High	91	16.0
Subjective exposition to migration (n=563)		
Very low	114	20.2
Low	173	30.7
Medium	187	33.2
High	89	15.8

Table 2a presents the relative responsibility for adaptation in health care according to the health professionals. A score below 4 implies that the responsibility is placed on the health professionals or the health institutions while a score over 4 implies that the responsibility is placed on the patients. A score of 4 corresponds to an intermediate attitude in which the responsibility is shared by the patient and the health professional.

We found that different features were associated with different views on responsibility. The provision of interpreters and written information were reported as being the responsibility of health professionals, while patients were expected to adapt to the gender of health professionals and to the values of the host country. Indeed, more than half of the respondents (55.3%) reported that patients had to adapt to the gender of health care professionals. We found that most respondents were unclear about adaptation to health beliefs: a third (36.8%) thought that the responsibility was the health care professional's, while 36% thought the responsibility was the patient's.

Table 2b (in appendix) presents the mean relative responsibility for adaptation in health care according to the characteristics of health professionals. The closer to 7 the mean is, the more the health professionals put the responsibility towards adaptation of health care on the patients. A mean score of 4 corresponds to an intermediate attitude in which the responsibility is shared by the patient and the health professional.

Table 2a: Reported attitudes of health professionals about the relative responsibility towards adaptation of health care in the COMETH study in Belgium in 2010-2012 (n=569)

	The responsibility is on the health professionals	The responsibility is on both health professionals and patients	The responsibility is on the patients	Total
• When immigrants' values and habits differ from those of the host country (%)	20.7	18.2	61.0	100.0
• When the patient does not speak the language of the host country (%)	65.3	19.7	15.0	100.0
• When the patient expresses the wish to be treated by a male of a female doctor (%)	34.3	10.4	55.3	100.0
• When the patient cannot read the language of the host country (%)	49.0	19.5	31.5	100.0
• When the patient's health beliefs contradict medical knowledge (%)	36.8	27.0	36.1	100.0

Based on the scree plot after Varimax rotation, we retained three factors. Factor 1 was correlated with item 2, “providing interpreters” (0.88), and item 4, “providing written information” (0.76). Factor 2 was correlated with item 1, “values of the host country” (0.67) and item 3, “gender concordance” (0.90). Factor 3 was correlated with item 5, “health beliefs” (0.97).

We interpreted factor 1 as “*Responsibility for adaptation to instrumental communication*” as it comprised two items related to communication (the provision of interpreters and the provision of written information). We interpreted factor 2 as “*Responsibility for adaptation to the negotiation of values*”, because it comprised items related to the values of the host country and gender concordance. Factor 3, interpreted as “*Responsibility for adaptation to health beliefs*”, comprised item 5: health beliefs.

Each factor resulting from the factor analysis was integrated into a multilevel regression model in order to identify the predictive covariates of responsibility (Table 3). Overall, no independent variable was common to the three responsibility factors, although some independent variables were common to two responsibility factors.

Table 3 Who is responsible for adapting health care to diversity, according to the health professionals in the COMETH study in Belgium in 2010-2012 : Covariates of responsibility, Beta and 95% Confidence Intervals from the mixed model (n=569)

	Dimensions of responsibility		
	Responsibility for adaptation to the instrumental communication (factor 1)	*Responsibility for adaptation to the negotiation of values (factor2)*	*Responsibility for adaptation to the health beliefs (factor 3)*
Covariates	Beta [95% CI]	Beta [95% CI]	Beta [95 % CI]
Training			
Physicians	-0.31 [-0.55; -0.10]	-	-0.49 [-0.70; -0.29]
Other professions (ref)	0.00	-	0.00

Table 3 (continued)

	Dimensions of responsibility		
	Responsibility for adaptation to the instrumental communication (factor 1)	*Responsibility for adaptation to the negotiation of values (factor2)*	*Responsibility for adaptation to the health beliefs (factor 3)*
Covariates	Beta [95% CI]	Beta [95% CI]	Beta [95 % CI]
Nationality			
Belgian	0.46 [0.19; 0.71]	0.32 [0.06; 0.57]	-
Non Belgian (ref)	0.00	0.00	-
Type of service			
Intensive care unit	-	-	0.34 [0.19; 0.49]
Not an intensive care unit (ref)	-	-	0.00
Primary care service	0.52 [0.25; 0.79]	-0.52 [-0.78; -0.25]	-
Not a primary care service (ref)	0.00	0.00	-
Covariates estimates			
Random intercept┼	0.04 P=0.073	0.04 P=0.08	-
Residual	0.91 p<0.0001	0.93 p<0.0001	0.94 p<0.0001

- Indicates non-significant results ┼random intercept = service

Belgians placed more responsibility on patients than on health professionals or the health services in relation to the negotiation of values and instrumental communication.

Compared to the other professions, physicians placed more responsibility on health professionals than on patients in relation to instrumental communication and adaptation to health beliefs.
Health professionals working in primary care placed more responsibility on the patient than on health professionals in relation to communication. Health professionals placed more responsibility on health professionals than on patients in relation to the negotiation of values. Health professionals working in an intensive care unit placed more responsibility on patients than on health professionals in relation to adaptation to health beliefs.

Discussion

We surveyed health professionals in 24 health services to find out who was considered to be responsible for adapting health services to a multicultural society. The results imply that attitudes to responsibility for the adaptation of health care depend on the nature of the adaptation required: when the adaptation directly concerned communication with the patient, health professionals declared they are the ones to adapt, but for cultural preferences the responsibility seems to fall on patients' shoulders. For responsibility regarding communication, primary care services placed more responsibility on patients than on health professionals when compared to non-primary care services; but, for the negotiation of values, it was the other way round.

How can we explain the attitude that responsibility falls on health care providers for instrumental communication, whereas it falls on patients for the negotiation of values? Three elements may contribute to our understanding of the attribution of responsibility: the legal framework, the training of health professionals, and the availability of resources.

Firstly, the Belgian legislation on patient rights [44] states that health professionals have to provide *all information which concerns the patient and may be necessary to understand his health status and its probable evolution*. Moreover, this information must be delivered *in clear language*. This statement clearly places the legal responsibility for communication on the health professional. The provision of clear information is related to the informed consent of the patient: without the consent of patients, health professionals are not allowed to provide health care, with a few exceptions (i.e. emergency situations). As physicians are mostly in charge of informing patients and obtaining their consent for treatment, it is thus understandable that they are more likely to place greater the responsibility on health professionals than are other health professionals such as nurses or allied health professionals. The law, however, does deal with the negotiation of values between health professionals and patients. If a patient is not satisfied with the services provided by health professionals, he or she has the right to consult another health professional or to be treated in another health service. In fact, the legislation on patient rights does not deal with patients' preferences: it mainly focuses on informed consent and the refusal of health care [45].

Secondly, the training curricula for health professionals are still for the most part concerned with the acquisition of knowledge and practical skills. Health professionals are trained to collect information in order to perform their roles, but they are not trained to manage conflicts of values such as refusal of care because of gender issues. All non-technical skills, such as empathy or kindness, are assumed to be part of the personality of the health professional and are not the focus of the curriculum. Even in the nursing curriculum, which is traditionally more patient-centred than the medical curriculum, the main focus remains the development of technical skills rather than the development of professional interpersonal skills. In fact, most health care professionals tend to adopt a paternalistic style of communication or display closed interaction patterns in health care encounters [46-49]. The paternalistic style of communication is based, as are other models of communication, on instrumental communication. Instrumental communication is task-focused communication, centred on the “cure” [50]. On the other hand, the negotiation of values is related to the effective process of the integration of immigrants within various aspects of social participation in their host country, including the labour market, acculturation, and social activities [51]. Health professionals may not perceive the need to negotiate on patients' values, especially in the Belgian context where patients may change health professionals or health services if they are not satisfied with them. It could, as a consequence, be easier for health professionals to place more responsibility for the negotiation of values on patients than on health professionals.

Thirdly, the attribution of responsibility may depend on the availability of resources to cope with diversity. Primary care services have a smaller patient capacity and fewer human resources than hospitals and have fewer opportunities to avail of interpreters or support for the provision of information in several languages. Intercultural mediators, funded by the Belgian federal state, are restricted to general and psychiatric hospitals, although some Internet-based mediation initiatives are currently being developed for primary care services [52]. These initiatives, thus, remain less accessible to solo health professionals such as general practitioners, physiotherapists, and home nurses.

Besides, health professionals may be more supportive of resources that benefit their endo-group. Interpreters, for example, facilitate diagnosis and the elaboration of a treatment plan. So it makes sense for health professionals to support the implementation of initiatives of that kind, as they are directly related to carrying out their job. They will reduce diagnosis errors, the length of stay in emergency rooms or in general hospitalisation, the number of additional examinations, and, ultimately, will reduce the costs of hospitals and primary care services [53].

Compared to the study by Hudelson and her colleagues [40], our study relied on a more diverse sample of health professionals. While Hudelson and her colleagues only sampled physicians and medical doctors, our sample was made up of nurses, health assistants, physicians, paramedics, and administrative staff in outpatient and inpatient services. However, we did not observe significant differences between professions, even though a previous study reported such difference [54]. One major difference between the results of Hudelson and her colleagues and our study concerns gender concordance. While, in the Hudelson study , professionals declared that they would adapt to a gender concordance request made by a patient, in our study, professionals declared that patients have to adapt to the gender of the health professional. This difference could be partly explained by a statement issued by the National Council of Physicians of Belgium, which repeated, in a recent statement, that the patient could not choose the gender of the health professional in emergency situations [55].

Our study has some limitations. Of the three health services that declined participation, two o were considered to be highly exposed to immigration. This could affect our results: health professionals may feel less responsibility for adapting health care to immigrants when they are more exposed to immigrant patients. Accordingly, our results may represent a "best" case of the Belgian situation. Further studies should involve a different sample, with a view to ensuring a balanced representation of the different levels of exposure to immigration.

The second limitation is related to the first. As the management of cultural and ethnic diversity in health care remains a sensitive topic, we cannot underestimate the risk of a social desirability bias at the individual level. Again, our **results** may depict a more positive situation than actually exists.

Conclusion

To our knowledge, this study is one of only a few that have assessed who felt responsible for the adaptation of health care in Europe. To conclude, we would like to highlight two key messages. First, responsibility for adaptation is multidimensional, depending on the nature of the adaptation required by the situation. Health professionals may feel more responsible when the adaptation in question is directly connected to their professional roles, such as having the right information in the right place and at the right time to provide adequate treatment. Negotiation between patients and health professionals remains marginal.

Second, health professionals felt they shared the responsibility with patients. If health professionals do not feel responsible for adaptation, they are less likely to be involved in culturally competent health care. Further studies should investigate the relationship between the responsibility of health professionals and the development of culturally competent interventions. Moreover, further studies could usefully pay more attention to health professionals' perception of their responsibilities.

List of abbreviations

COMETH (acronym): Competences in Ethnicity and Health

Competing interests

None to declare

Authors' contribution

MD designed the protocol of the study, collected the data, carried out the analysis of the findings of the COMETH project. VL helped to design the protocol, drafted the manuscript, and contributed to the analysis of the findings. Both authors contributed to the drafting of the manuscript and gave their approval to the final version of the manuscript.

Acknowledgements

The authors would like to thank Patricia Hudelson for authorising the use of her scale and its adaptation to the Belgian context. The authors warmly thank Séverine Henrard and Sébastien Petrolito for their advice in relation to statistical analyses. Computational resources were provided by the supercomputing facilities of the Université catholique de Louvain (CISM/UCL) and the Consortium des Equipements de Calcul Intensif en Fédération Wallonie Bruxelles (CECI), funded by the Fonds de la Recherche Scientifique de Belgique (F.R.S.-FNRS). MD is a research fellow of the Fonds de la Recherche Scientifique de Belgique (F.R.S.-FNRS).

Additional file 1: Scale of relative responsibility towards adaptation of health care for migrants, adapted from Hudelson et al 2010

In the following propositions, you may choose between two possible attitudes when encountering migrant patients in your health service. Please, choose the statement corresponding to your opinion (one answer by proposition).

A. When immigrants' values and habits differ from those of the host country

Host country institutions should adapt to the immigrants ‘values and habits	1	2	3	4	5	6	7	Migrants should adapt to the values and habits of the host country

B. When the patient does not speak the language of the host country

The health professional should always provide a professional interpreter	1	2	3	4	5	6	7	It is the patient’s responsibility to find an interpreter

C. When the patient expresses the wish to be treated by a male of a female health professional

Hospitals should allow patients who request it to choose their health professional’s sex	1	2	3	4	5	6	7	Patients should accept to be treated by the health professional provided by the hospital, regardless of their sex

D. When the patient cannot read the language of the host country

Hospitals should provide written information in the patient’s language	1	2	3	4	5	6	7	The patient should arrange to translate written information provided by the hospital

E. When the patient's health beliefs contradict knowledge of the health professionals

The health professional should adapt to the patient’s beliefs regarding the disease and the treatment	1	2	3	4	5	6	7	The patient should trust the explanations and recommendations of the health professional

Appendix 2 : table 2b

Table 2b Mean score about the relative responsibility towards adaptation of health care in the COMETH study in Belgium in 2010-2012 according to characteristics of the participants (n=569)[1]

	Adaptation to values (mean STD)	Providing interpreters (mean STD)	Gender concordance (mean STD)	Providing written information (mean STD)	Adaptation to health beliefs (mean STD)
COMETH	4.3 (1.5)	4.2 (2.0)	3.5 (1.6)	3.4 (1.6)	3.0 (1.2)
Profession					
Physicians and medical assistants	4.4 (1.5)	2.8 (1.4)	4.4 (2.1)	3.2 (1.4)	3.1 (1.6)
Non physicians	4.9 (1.6)	3.0 (1.6)	4.6 (2.0)	3.7 (1.7)	4.1 (1.7)
Sex					
Women	4.8 (1.6)	3.0 (1.6)	4.5 (2.0)	3.7 (1.7)	4.0 (1.7)
Men	5.0 (1.6)	2.9 (1.6)	4.8 (2.0)	3.3 (1.6)	3.9 (1.8)
Age groups (years)					
20-29 y	4.6 (1.5)	2.8 (1.3)	4.4 (2.0)	3.3 (1.6)	4.0 (1.7)
30-39 y	4.9 (1.5)	2.9 (1.4)	4.7 (1.9)	3.8 (1.5)	4.1 (1.6)
40-49 y	5.0 (1.5)	2.9 (1.7)	4.6 (2.0)	3.4 (1.8)	3.7 (1.8)
50-59 y	4.9 (1.7)	3.2 (1.8)	4.5 (2.0)	3.8 (1.8)	4.0 (1.7)
60y and more	4.4 (2.0)	3.9 (2.3)	5.1(2.0)	4 (2.2)	4.6 (2.1)
Objective exposition to migration					
Low	5.0 (1,5)	2.9 (1.6)	4.5 (2.0)	3.5 (1.7)	4.1 (1.7)
Medium	4.7 (1.6)	3.1 (1.5)	4.5 (2.1)	3.7 (1.6)	3.9 (1.7)
High	4.8 (1.6)	2.9 (1.8)	4.8 (1.8)	3.7 (1.8)	4.0 (1.8)
Subjective exposition to migration (n=563)					
Low	4.7 (1.7)	2.8 (1.6)	4.5 (2.1)	3.5 (1.7)	4.0 (1.7)
Medium	5.0 (1.5)	3.4 (1.6)	5.0 (1.8)	3.9 (1.6)	4.0 (1.7)
High	5.0 (1.5)	2.7 (1.7)	5.0 (1.6)	3.4 (1.8)	4.0 (1.8)
Nationality					
Belgian	4.9 (1.6)	3.0 (1.6)	4.6 (2.0)	3.7 (1.7)	4.0 (1.7)
Non Belgian	4.3 (1.7)	2.4 (1.6)	4.0 (2.0)	2.9 (1.6)	3.9 (1.7)

Table 2b (continued)

	Adaptation to values (mean STD)	Providing interpreters (mean STD)	Gender concordance (mean STD)	Providing written information (mean STD)	Adaptation to health beliefs (mean STD)
Type of services					
Primary care services	4.7 (1.3)	3.8 (1.5)	3.8 (1.8)	3.5 (1.6)	3.5 (1.6)
Psychiatry	4.8 (1.6)	2.9 (1.4)	5.1 (1.9)	3.6 (1.5)	3.9 (1.5)
Communicable diseases	4.9 (1.8)	2.6 (1.9)	4.5 (2.2)	3.5 (1.6)	3.2 (1.7)
Geriatrics	4.7 (1.8)	2.8 (1.7)	4.3 (2.2)	3.6 (2.0)	3.7 (1.9)
Intensive care units	5.0 (1.6)	2.8 (1.5)	4.8 (2.0)	3.5 (1.6)	4.5 (1.6)
Oncology	4.9 (1.6)	2.9 (1.7)	4.7 (2.0)	3.8 (1.8)	4.0 (1.8)

[1] The higher the score is, the more the health professionals put the responsibility towards adaptation of health care on the patients.

References

1. Ingleby JD: *Memorandum of Understanding. For the implementation of a European Concerted Research Action designated as COST Action IS1103 ADAPTING EUROPEAN HEALTH SYSTEMS TO DIVERSITY (ADAPT*). Brussels: COST Network; 2011.

2. Smedley BD, Stith AY, Nelson AR. *Unequal Treatment: Confronting Racial and Ethnic Disparities in Health Care.* Washington DC: the National Academies Press; 2003.

3. Scheppers E, van DE, Dekker J, Geertzen J, Dekker J: **Potential barriers to the use of health services among ethnic minorities: a review**. *Fam Pract* 2006, **23**: 325-348.

4. Migrant Friendly Hospitals taskforce: *The Amsterdam Declaration Towards Migrant Friendly Hospitals in an ethno-culturally diverse Europ*e. Amsterdam: 2004.

5. Conseil de l'Europe: *Recommendation Rec(2006)18 of the Committee of Ministers to member states on health services in a multicultural society*. Rec(2006)18. 8-11-2006.

6. National Resources Center for Ethnic Minorities Health (NRCEMH): Checking for Change. *Summary of suggestions for "How to" deliver targets and indicators for Race Equality in Health*. Edinburgh : NHS Scotland ; 2008.

7.Office Fédéral de la Santé Publique : *Migration et santé. Résumé de la stratégie fédérale phase II (2008-2013).* Berne : Office Fédéral de la Santé Publique ; 2008.

8. Anderson LM, Scrimshaw SC, Fullilove MT, Fielding JE, Normand J: **Culturally competent healthcare systems: A systematic review**. *Am J Prev Med* 2003, **24**: 68-79.

9. Betancourt JR, Green AR, Carrillo JE, Ananeh-Firempong II O: **Defining cultural competence: A practical framework for addressing racial/ethnic disparities in health and health care**. *Public Health Rep* 2003, **118**: 293-302.

10. Bhopal RS: **Research agenda for tackling inequalities related to migration and ethnicity in Europe**. *J Public Health (UK)* 2012, **34**: 167-173.

11. Fisher TL, Burnet DL, Huang ES, Chin MH, Cagney KA: **Cultural leverage: Interventions using culture to narrow racial disparities in health care**. *Med Care Res Rev* 2007, **64**: 243S-282S.

12. Chin MH, Walters AE, Cook SC, Huang ES: **Interventions to reduce racial and ethnic disparities in health care.** *Med Care Res Rev* 2007, 64: 7S-28S.

13. Brach C, Fraserirector I: **Can cultural competency reduce racial and ethnic health disparities? A review and conceptual model**. *Med Care Res Rev* 2000, **57**: 181-217.

14. Kirmayer LJ: **Rethinking cultural competence.** *Transcult Psychiatry* 2012, **49**: 149-164.

15. Ault-Brutus AA: **Changes in racial-ethnic disparities in use and adequacy of mental health care in the United States, 1990-2003**. *Psychiatric Serv* 2012, **63**: 531-540.

16. Glaesmer H, Wittig U, Braehler E, Martin A, Mewes R, Rief W: **Health care utilization among first and second generation immigrants and native-born Germans: A population-based study in Germany.** *Int J Public Health* 2011, **56**: 541-548.

17. Nielsen SS, Hempler NF, Waldorff FB, Kreiner S, Krasnik A**: Is there equity in use of healthcare services among immigrants, their descendents, and ethnic Danes?** *Scand J Public Health* 2012, **40**: 260-270.

18. Schoenmaker NJ, Tromp WF, Van Der Lee JH, Adams B, Bouts AH, Collard L *et al.*: **Disparities in dialysis treatment and outcomes for Dutch and Belgian children with immigrant parents.** *Pediatr Nephrol* 2012, **27**: 1369-1379.

19. Ochieng BMN: **Black African migrants: The barriers with accessing and utilizing health promotion services in the UK**. *Eur J Public Health* 2013, **23**: 265-269.

20. Riggs E, Davis E, Gibbs L, Block K, Szwarc J, Casey S *et al.*: **Accessing maternal and child health services in Melbourne, Australia: Reflections from refugee families and service providers**. *BMC Health Serv Res* 2012, **12**.

21. Stansbury JP, Jia H, Williams LS, Vogel WB, Duncan PW: **Ethnic disparities in stroke: Epidemiology, acute care, and post-acute outcomes**. *Stroke* 2005, **36**: 374-386.

22. Marshall J: **Diabetes in African Americans**. *Postgrad Med J* 2005, **81**: 734-740.

23. Leong AB, Ramsey CD, Celedón JC: **The challenge of asthma in minority populations.** *Clin Rev Allergy Immunol* 2012, **43**: 156-183.

24. Lanting LC, Joung IMA, Mackenbach JP, Lamberts SWJ, Bootsma AH: **Ethnic differences in mortality, end-stage complications, and quality of care among diabetic patients: A review**. *Diabetes Care* 2005, **28**: 2280-2288.

25. Adamson J, Warfa N, Bhui K: **A case study of organisational cultural competence in mental healthcare.** *BMC Health Serv Res* 2011, **11**.

26. Chrisman NJ: **Extending cultural competence through systems change: Academic, hospital, and community partnerships**. *J Transcult Nurs* 2007, **18**: 68S-76S.

27. Dogra N, Betancourt JR, Park ER, Sprague-Martinez L: **The relationship between drivers and policy in the implementation of cultural competency training in health care.** *J Natl Med Ass* 2009, **101**: 127-133.

28. Telfair J, Bronheim SM, Harrison S: **Implementation of culturally and linguistically competent policies by state title V children with special health care needs (CSHCN) programs.** *Matern Child Health J* 2009, **13**: 677-686.

29. Campinha-Bacote J: **The process of cultural competence in the delivery of healthcare services: A model of care**. *J Transcult Nurs* 2002, **13**: 181-184.

30. Jirwe M, Gerrish K, Keeney S, Emami A: **Identifying the core components of cultural competence: Findings from a Delphi study**. *J Clin Nurs* 2009, **18**: 2622-2634.

31. Powell Sears K: **Improving cultural competence education: The utility of an intersectional framework**. *Medical Education* 2012, **46**: 545-551.

32. Wells MI: **Beyond cultural competence: A model for individual and institutional cultural development**. *J Community Health Nurs* 2000, **17**: 189-199.

33. Seeleman C, Suurmond J, Stronks K: **Cultural competence: A conceptual framework for teaching and learning.** *Medical Education* 2009, **43**: 229-237.

34. Whitehead CR, Austin Z, Hodges BD: **Flower power: the armoured expert in the CanMEDS competency framework?** *Adv in Health Sci Educ* 2011, **16**: 694.

35. Service Public Fédéral Economie P.M.E : *Population par nationalité par commune 01.01.2010*. Brussels : Service Public Fédéral, Economie P.M.E. Classes Moyennes et Energie ; 2010.

36. Perrin N : *L'évolution du nombre d'étrangers en Belgique*. Groupe de Démographie Appliquée. Louvain-la-Neuve : Université catholique de Louvain ; 2006.

37. Fédération des maisons médicales et des collectifs de santé francophone : *Charte des maisons médicales*. Brussels: FMM; 2005.

38. Saha S, Beach MC, Cooper LA: **Patient Centeredness, Cultural Competence and Healthcare Quality**. *J Natl Med Assoc* 2008, **100**: 1275-1285.

39. Bodenheimer T, Wagner EH, Grumbach K**: Improving primary care for patients with chronic illness**. *J Am Med Assoc* 2002, **288**: 1775-1779.

40. Hudelson P, Perron NJ, Perneger TV: **Measuring physicians' and medical students' attitudes toward caring for immigrant patients**. *Eval Health Prof* 2010, **33**: 452-472.

41. Bischoff A: *Caring for migrant and minority patients in European hospitals. A review of effective interventions*. Basel & Neuchatel: Swiss Forum for Migration and Populations studies; 2003.

42. Krajic K, Strassmayar C, Karl-Trummer U, Novak-Zezula S, Pelikan JM: **Improving ethnocultural competence of hospital staff by training: experiences from the European 'Migrant-friendly Hospitals' project.** *Diversity in Health and Social Care* 2005, **2**: 279-290.

43. Priebe S, Sandhu S, Dias S, Gaddini A, Greacen T, Ioannidis E *et al.*: **Good practice in health care for migrants: views and experiences of care professionals in 16 European countries.** *BMC Public Health* 2011, **11**.

44.Ministère des Affaires Sociales, Santé Publique et Environnement: *Loi relative aux droits du patient [Law on the rights of the patients]*. Brussels: Belgian Parliament ; 22-8-2002.

45. Schamps G: *Evolution des droits du patient, indemnisation sans faute des dommages liés aux soins de santé : le droit médical en mouvement*. Brussels: Bruylant; 2008.

46. Bigoni C, Marchand P: **Relational care, a model to question**. *Soins* 2012, **57**: 16-19.

47. Roter DL, Stewart M, Putnam SM, Lipkin M, Stiles W, Inui TS: **Communication patterns of primary care physicians**. *JAMA* 1997, **277**: 350-356.

48. Zomorodi M, Foley BJ: **The nature of advocacy vs. paternalism in nursing: Clarifying the 'thin line'.** *J Adv Nurs* 2009, **65**: 1746-1752.

49. Cody WK: **Paternalism in nursing and healthcare: Central issues and their relation to theory**. *Nurs Sci Q* 2003, **16**: 288-296.

50. Ong LML, de Haes JCM, Hoos AM, Lammes FB: **Doctor-patient communication: a review of the literature**. *Soc Sci Med* 1995, **40**: 903-918.

51. Rea A, Tripier M: *Sociologie de l'immigration*. Paris: La Découverte; 2008.

52. Verrept H: Intercultural Mediation at Belgian Hospitals. In *Crossing Borders in Community Interpreting. Definitions and dilemmas*. Edited by Valero-Garcés C, Martin A. Amsterdam: 2008:187-2002.

53. Bischoff A, Denhaerynck K: **What do language barriers cost? An exploratory study among asylum seekers in Switzerland**. *BMC Health Serv Res* 2010, **10**: 248.

54. Paez KA, Allen JK, Beach MC, Carson KA, Cooper LA: **Physician cultural competence and patient ratings of the patient-physician relationship**. *J Gen Intern Med* 2009, **24**: 495-498.

55. Conseil National de l'Ordre des Médecins de Belgique : *Code de conduite: Choix du médecin aux urgences et/ou pendant la garde*. Brussels: Ordre des Médecins de Belgique, 26-4-2008.

CHAPTER 4: Cultural competence in health services in Belgium. Leadership and cultural competences

The chapter 4 presents a firs study which aimed at investigating the role of inter-professionals relationships on the diffusion of cultural competences within health care organisations. In this study, we investigated the leadership effect.

- Dauvrin M, Lorant V. Cultural competences of health professionals: a leadership approach.

This manuscript has been submitted at *Nursing Research* on October 2, 2013

This chapter was presented as oral communications at:

- Dauvrin M, Lorant V. *COMETH Competences in Ethnicity & Health: Using the Organisational Level to spread Cultural Competences, a Social Network Analysis*. Séminaire de l'Ecole Doctorale Thématique Santé et Société Woluwé Saint Lambert (Belgium), June 2013
- Dauvrin M, Lorant V. COMETH Competences in Ethnicity & Health: Using the Organisational Level to spread Cultural Competences, a Social Network Analysis. COST ADAPT, Vienna (Austria), March2013
- Dauvrin M. *A social network analysis of cultural competences among health care providers in two cities*. 3rd World Congress of Cultural Psychiatry, London (United Kingdom), March 2012. Abstract published in *World Cultural Psychiatry Research Review* 2012, 1(S1): 90
- Dauvrin M, Lorant V. *Are cultural competences contagious? A social network analysis of cultural competences among health professionals in hospitals and primary care services*. 4th Conference on Migrant and Ethnic Minority Health in Europe, Università de Bocconi, Milan (Italy), June 2012.

Cultural competences of health professionals: a leadership approach

Background In most European metropolitan areas, health services are required to provide culturally competent health care to migrant patients but, so far, this goal has remained elusive because cultural competence has been mostly considered as an individual competence.

Objectives We tested the hypothesis that health care professionals are more likely to be culturally competent if their leaders are culturally competent themselves.

Method We carried out a social network analysis in 24 health services in Belgium between 2010 and 2012. All health care professionals filled in a questionnaire assessing their level of cultural competence as well as their inter-professional relationships. We identified the most central actors within each health service according to the in-degree centrality. We then performed a regression analysis of the cultural competence of the individuals against the cultural competence of the service leaders.

Results Cultural competence of individuals increased with cultural competence of the leaders, even after controlling for contextual and sociodemographic variables. Overall interaction analyses suggest that the leadership effect depends on the personal skills of the leaders rather than on their professional experience.

Discussion Cultural competence among health professionals is partly acquired through role-modeling. The implementation of culturally competent strategies requires an appraisal of inter-professional relationships and a reliance on leadership role-modeling within health care services.

Key Words: cultural competence, social network, leadership

Background

In most European metropolitan areas, health services are required to provide culturally competent health care to ethnic minority patients in order to reduce health inequities for ethnic minorities (Brach & Fraserirector, 2000). Cultural competence encompasses a broad range of strategies ranging from the individual level to the political level (Brach & Fraserirector, 2000) and is included in numerous training programs for health professionals (Seeleman, Suurmond, & Stronks, 2009).

Training models for cultural competence develop the non-technical skills of health professionals, such as empathy, openness, or kindness towards ethnic minorities (Jirwe, Gerrish, Keeney, & Emami, 2009; Seeleman et al., 2009). In most training programs in cultural competence, the focus is on the individual health professional rather than on groups. Training programs may, for example, focus on specific health professions such as nurses (Jirwe et al., 2009),or physicians (Mostow et al., 2010). Some also focus on specific health services or specialties, such as psychiatry (Qureshi, Collazos, Ramos, & Casas, 2008), or health promotion (Kreuter, Lukwago, Bucholtz, Clark, & Sanders-Thompson, 2003).

However, despite promising results on patient satisfaction, training in cultural competence has shown inconsistent effects on the quality of care and on the health outcomes of the patients (Renzaho, Romios, Crock, & Sønderlund, 2013). Beach and colleagues concluded that evidence is lacking for the beneficial effects of cultural competence training on patient adherence and health outcomes (Beach et al., 2005). Moreover, the effects of training on the practices of health professionals tend to decrease over time (Lo & Fung, 2003), especially when the work environment does not value or support the skills acquired through training (Barnes, Bullock, Bailey, Cowpe, & Karaharju-Suvanto, 2013).

Firstly, delivering health care is a multidisciplinary and collective activity, especially in hospitals and primary care services. The quality of care, including patient safety, depends on the efforts of the entire team and not on a few individuals alone (Taylor et al., 2011). Most models of cultural competence training programs neglect the fact that such competence is also learned socially and shared in the workplace. The relevant education paradigms focus on *lapses* and report behaviors that the health professional should avoid. They fail to identify positive behaviors which may influence the role-modeling of the health professionals, particularly for non-technical skills (Curry, Cortland, & Graham, 2011). Context, leadership, and colleagues are elements contributing to role-modeling and social learning of professional competence (Marsick & Watkins, 2007).

Secondly, it is not very efficient to be culturally competent alone. Each health professional brings his/her specific expertise to care for the patients and the combination of these complementary competences lead to positive effects on patient health outcomes (Cameron et al., 2013). Therefore, being a culturally competent nurse is not likely to make any difference to the quality of the service if the most central (or in other words, the most popular) nurse is not culturally competent (Zwarenstein, Goldman, & Reeves, 2009). When a health care professional is culturally competent alone, he/she will only suffer from putting effort into activities that his/her colleagues do not value or acknowledge (Bryan Fuller, Hester, Barnett, Frey, & Relyea, 2006). Moreover, poor teamwork and communication failures are commonly reported as sources of most of the errors occurring in health care (Barrow, McKimm, & Gasquoine, 2011).

Thirdly, being culturally competent could result from existing norms among health professionals. These norms are usually spread among health professionals through the most influential individuals: the leaders. Indeed, normative influence is exerted through social side payments: either positive or negative norms could be spread among the health professionals. Positive norms associated with cultural competence include a positive organizational leadership and value placed on diversity (Yamada & Brekke, 2008). In such a context, health professionals with specific expertise in cultural competence will be more likely to integrate this competence into their daily practices. Negative norms, on the other hand, include a negative perception of intercultural care or poor appreciation of cultural competence. The risk of poor appreciation of cultural competence is even greater when the skills are non-technical skills that are difficult to grasp (Capelle, 2009). Normative influence by the leaders will influence both the adoption of cultural competence and the prevention of harmful attitudes (Dimaggio & Garip, 2012).

For these three reasons (social learning, externalities and norms), it is likely that cultural competence is socially shared behavior. We aimed to investigate the role of inter-professional relationships on the diffusion of cultural competence within health care organizations. More precisely, we tested the following hypothesis: Health care staff is more likely to be culturally competent if their most central colleagues are culturally competent themselves. Previous studies have reported the role played by formal leaders in promoting learning in interdisciplinary teams within various contexts (Edmondson, 2003). The so-called Pygmalion effect has a significant influence on the attitudes of health professionals, particularly on the youngest members of health teams (Sterling Livingston, 2003). Similarly, leaders adopting a goal-oriented leadership are able to reinforce expected and productive attitudes among workers (Sims, 1977). Such leadership roles have been reported as improving the quality and safety of health care for the patients (Kaplan et al., 2010) and as having a positive effect on the prevention of nosocomial infections (Ferguson, 2009), the implementation of a hand-washing culture (Roberts, Sieczkowski, Campbell, Balla, & Keenan, 2012), and on professional practices and health care outcomes (Flodgren et al., 2011). To our knowledge, no study has as yet tested the role of formal and emergent leaders in the context of culturally competent health care. We hypothesized that leadership characteristics would contribute to the relationship between staff competence and leader competence.

Methods

We conducted a social network analysis as a part of a larger research project (COMETH: COMpetences in Ethnicity and Health) aimed at evaluating and understanding the cultural competence of health professionals in Belgium.

Study Setting

We used a cluster-based sampling method to identify networks of health professionals. First, we selected three geographical zones, according to numbers of non-national residents, in Brussels and Wallonia. These zones were sorted into three categories according to the geographical distribution of the foreign population: low exposure to migration, medium exposure to migration, and high exposure to migration. Within each geographical zone, we then selected the larger hospitals and the larger primary care services, based on the annual number of patients admitted per year. Within each hospital, we then selected four services: a chronic patient-centered care service, an acute patient-centered care service, a chronic non-patient-centered care service, and an acute non-patient-centered care service. It was assumed that patient-centered services would have more collaborative forms of inter-professional relationships than non-patient-centered services, since interdisciplinary collaboration is promoted as part of the patient-centeredness. Each service constituted a network for the analysis.

During the recruitment process, two hospitals and one primary care service declined to participate in the project. Two of the participating hospitals did not have communicable diseases units. We therefore replaced these units with the internal medicine units. In one hospital, the psychiatric unit declined to participate due to an internal reorganization at the time of the study. The final sample of services comprised five primary care services and four hospitals. This included 19 inpatient health services, which were: four geriatric units, four intensive care units, four oncology units, three psychiatric units, two communicable diseases units, one palliative care unit, and one endocrinology unit. In one setting, the oncology unit also included patients suffering from communicable diseases.

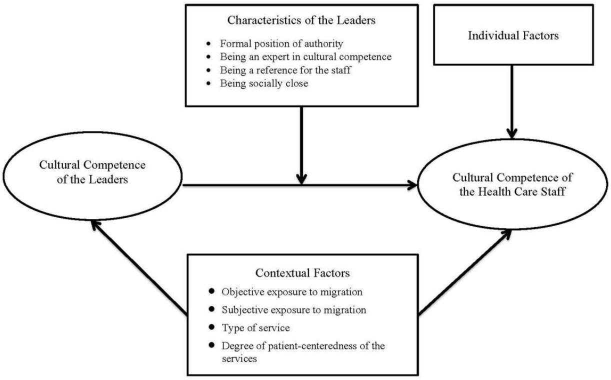
Data Collection

Initial consent was obtained from the management of each institution. Every health professional and volunteer working in each service was invited to participate in the research. Participants were free to withdraw their consent at any step of the data collection process. Data was collected using a self-administered questionnaire, between June 2010 and June 2012. Participants had one month to complete the questionnaire. Reminder emails were sent to the head nurse and the doctor-in-chief of each service each week during the one-month data collection period. This study was approved by the Ethics Committee of the Université catholique de Louvain and the national Privacy Commission of Belgium (Ordinary Declaration n° 1304326281174).

Measures

Cultural Competence of the Health Professionals

Figure 1 Leadership Model of Cultural Competence



Our dependent variable was the cultural competence of the health professionals (Figure 1). We adapted the cultural competence scale of the Migrant Hospital project to the Belgian context and for all health professionals (Krajic, Strassmayar, Karl-Trummer, Novak-Zezula, & Pelikan, 2005). The scale contents 15 differential semantic items covering various aspects of cultural competence. The response ranges from 1 (not at all competent) to 5 (entirely competent). Missing responses were coded as 0. We performed a factor analysis on our scale. We decided to sum the 15 items to obtain a score reflecting the total cultural competence of the health professionals. We used a factorial analysis to divide the scale of cultural competence into 5 different culturally competent domains: paradigm (aptitude to adapt to a different paradigm of care), communication (capacity to provide information to the patients in clear language), specificity (capacity to provide specific care for specific groups such as irregular migrants), organization (capacity to adapt the organization of the health care to the needs of the patients) and mediation (capacity to negotiate with the patients in case of trouble).

Identification of the Leaders

Our exposure variable was the cultural competence of the leaders. To identify the leaders of each service, we used a social network design with a closed-network approach (also called complete network data). Each health professional identified the social relationships they had with their colleagues in a list containing the names of all the staff members (roster method). We selected three relevant relationships in the professional context (Creswick, Westbrook, & Braithwaite, 2009): problem-solving (who do I ask for help?), advice-seeking (who do I ask for advice on the care of my patients), and socialization (who do I go to for informal moments of socialization such as coffee breaks). Within each service, we computed indicators of centrality (the most cited person in the network) according to the in-degree in the advice-seeking relationship (Valente, 2010). In-degree centrality is defined as the number of links (or ties) received by an individual. The higher the in-degree is, the more central the individual is to the network (Valente, 2010). Based on the in-degree, we then selected the three most central individuals (=leaders) for each health service and computed their average level of cultural competence. We then removed these leaders from the database.

For each leader, we identified associated leadership characteristics that might explain the relationship between the cultural competence of the most central individuals and the cultural competence of the health care staff. Leadership characteristics include: having a formal position of authority within the service (i.e. being the person officially in charge of the health service); having expertise in cultural competence (e.g. training in cultural competence, professional experience abroad as health professional, and speaking English); being a reference due to age (40 years of age or more) or professional experience (working for 12 years or more), and being socially close of the rest of the health care staff.

Contextual Factors

The association between the cultural competence of health professionals and the cultural competence of the leaders could be due to confounding contextual factors. Contextual factors included objective and subjective exposure to migrant and ethnic minority groups and service-level factors. Objective exposure was measured by the location of the service, i.e. geographical zones with low, medium, or high exposure to migration. Subjective exposure was measured by the frequency of exposure to intercultural situations as experienced by the health professionals. We developed a specific scale, adapted to the Belgian context. This scale was based on previous surveys in Belgium and Europe (Krajic et al., 2005; Priebe et al., 2011). We performed a specific factor analysis on the subjective exposure scale to obtain final variables for the analysis. Service-levels factors were: the paradigm of care (centered-care versus non-centered care); the length of stay (acute unit versus chronic unit); the type of service (intensive care, geriatrics, psychiatry, oncology – including palliative care and endocrinology units – , communicable diseases, and primary care services), and the institution. We also included the sociodemographic characteristics of the health professionals in our model.

Analysis

The analysis took place in three stages. First, we computed descriptive statistics and compared cultural competence of the leaders with cultural competence of the health care professionals. Second, we correlated the cultural competence of the most central individuals with the cultural competence of the health care professionals (at alpha=5%). Third, in Model 1, we performed a regression on the cultural competence of health care professionals against the cultural competence of the most central individuals. Model 2 was controlled for individual and contextual factors: subjective exposure, objective exposure, paradigm of care, type of service, profession, gender, age, and professional experience. The control variables were selected in a stepwise regression. The stepwise regression captured the confounding variables likely to be correlated with both individual cultural competence and leaders' cultural competence. To account for the with-service clustering, we introduced the Huber sandwich white estimator. In Model 3, we tested the interactions between the leaders' cultural competence and possible intermediary factors such as formal leader position (yes/no), expertise (low/high), reference position (yes/no) and social proximity. We measured social proximity through two variables: closeness and betweenness. Closeness, is defined as in Valente (2010, p85) as the average distance of a node from all other individuals in the network. Betweenness is defined in Valente (2010, p87) as the frequency with which a person occurs on the shortest path that connects everyone else in the network. The interaction variables were also selected using through a stepwise regression. These three models were tested for the total cultural competence and for each domain of cultural competence. Statistical analyses were conducted using SAS 9.2 software and computations of centrality measures were done using UCINET 6.416 software (Borgatti, Everett, & Freeman, 2002).

Results

Participants' characteristics

We contacted 876 members of staff in the 24 participating services and received 576 replies, thus yielding an overall participation rate of 66%. After data cleaning, 485 questionnaires were eligible for social network analysis. Among these 485 respondents, 71 individuals were identified as the most central individuals. In the results section, we will refer to these 71 individuals as "leaders".

Respondents were mostly nurses and care assistants (59.7%, see Table 1), administrative and social staff (15.3%), allied health professionals (13%), and general practitioners and hospital-based doctors (12%). The mean professional experience as a health professional was 12 years (SD 8.94). Twenty-five percent of health professionals reported previous training in cultural competence.

Table 1 Sociodemographic characteristics of health professionals who participated in the COMETH study conducted in Belgium between 2010 and 2012 (n=485)

	Number	**(%)**
Profession		
Nurses and care assistants	290	59.7
Administrative and social staff	74	15.3
Allied health professionals	63	13.0
Physicians and medical assistants	58	12.0
Sex		
Women	380	78.3
Men	105	21.7
Age groups (years)		
20-29 y	125	25.8
30-39 y	135	27.9
40-49 y	116	24.0
50-59 y	87	18.0
60y and more	21	4.3
Objective exposure to migration		
Low	225	46.4
Medium	190	39.2
High	70	14.4
Subjective exposure to migration		
Very low	5	1.0
Low	173	35.7
Medium	222	45.8
High	85	17.5

Table 2 presents the mean cultural competence of the leaders and the mean cultural competence of the health professionals. Overall, leaders showed a higher level of cultural competence than the other health professionals. Leaders had a mean score of 3.9 (SD 0.8) for communication competence while other health professionals had a mean score of 3.4 (SD 1.0). However, leaders and health professionals showed fairly similar scores for adaptation to different health care paradigms (3.0, SD 0.8 versus 2.8 SD 1.0).

Table 2 Cultural competence and sense of responsibility towards adaptation of health care of leaders (=most central health professionals) and health care staff in the COMETH study in Belgium between 2010 and 2011(n= 485)

	Leaders mean (SD) (n=71)	Health Care Team mean (SD) (n=414)
Cultural Competence (range)[1]		
Score of total cultural competence (0-90)	51.1(8.6)	46.5(13.7)
Communication (0-5)	3.9(0.8)	3.4(1.0)
Health service organization (0-5)	3.5(0.7)	3.1(1.1)
Delivery of specific health care (0-5)	3.5(0.7)	3.3(1.1)
Mediation of conflicts (0-5)	3.5(0.8)	3.1(1.1)
Adaptation to different health care paradigms (0-5)	3.0(0.7)	2.8(1.0)
Sense of Responsibility (range)[2]		
Score of total responsibility (7-35)	20.0(5.7)	19.8(5.6)
Adapting to the values (1-7)	4.8(1.5)	4.8(1.6)
Providing gender concordant health professional (1-7)	4.6(2.0)	4.5(2.0)
Providing interpreters (1-7)	3.0(1.5)	2.9(1.6)
Providing written information (1-7)	3.9(1.6)	3.5(1.7)
Adaptation to the health beliefs (1-7)	3.8(1.7)	4.0(1.7)

[1] The higher the score is, the more the health professionals are culturally competent

[2] The higher the score is, the more the health professionals feel a sense of responsibility towards adapting health care to suit migrant patients

Correlations Analyses

We correlated the cultural competence of the leaders (n=71) with the cultural competence of the individuals (n=414) and found a slight positive correlation (Table 3, see next page). Among the particular domains of cultural competence, paradigm competence had the strongest correlation (coefficient of correlation=0.29, p-value <.0001). However, communication competence of leaders and individuals were not significantly correlated.

Table 3 Correlation coefficients between the cultural competence of the health care service leaders and the individual cultural competence of health professionals in the COMETH study in Belgium between 2010 and 2012 (n=485), by area of cultural competence

	Individual Competence					
	Total Competence	Paradigm Competence	Communication Competence	Specificity Competence	Organization Competence	Mediation Competence
Leader Competence						
Total Competence	0.15**					
Paradigm Competence		0.29***				
Communication Competence			0.016			
Specificity Competence				0.19***		
Organization Competence					0.12**	
Mediation Competence						0.18***

*** <.0001 ** <.001 *<.05 Alpha level =0.05

Bivariate Regression Model & Multivariate Regression Model

Overall, in the bivariate regression model, cultural competence of the individuals increased with the cultural competence of the leaders (Table 4, see next page). The highest association was found for paradigm competence (Beta= 0.37, p-value <.001). However, the bivariate model of regression was not significant for communication competence or organization competence. Controlling for contextual variables (e.g. objective and subjective exposure to migration, type of service, or paradigm of care) and individual factors (e.g. gender, profession, or age), resulted in a slight reduction in the effect of leaders' cultural competence on health professionals' cultural competence (Table 4). However, health professionals' cultural competence still increased with leaders' cultural competence (Beta=0.20, p-value <. 05). Paradigm competence, mediation competence, and specificity competence of the health professionals also remained positively associated with leaders' competence.

Interaction Model

Interactions were computed to analyze intermediary mechanisms. The effect of the cultural competence of the leader on the total cultural competence of the health care staff was significantly interacting with social proximity variables (p-value <.05), was slightly but significantly interacting with the age of the leaders (p-value <.05), the professional experience of the leaders (p-value <.05) and the expertise of the leaders (p-value <.05). More precisely, this effect was significantly higher when the leaders were socially closer to their colleagues then when they were more distant. The interaction effect was significantly higher when the leaders were less than 40 years old than when they were 40 years old and more and when the leaders had less than 12 years of professional experience. This effect was also significantly higher when the leaders were trained in cultural competences, when the leaders had a professional experience abroad and when the leaders spoke English than when the leaders did not have such expertise.

Table 4 Individual cultural competence of health care professionals in the COMETH study in Belgium between 2010 and 2012 (n = 485), as predicted by the cultural competence of the most central individuals (= leaders), by area of cultural competence

	Individual Competence							
	Total Competence (range 0 to 90)		Competence Mediation (range 0 to 5)		Competence Paradigm (range 0 to 5)		Competence Specificity (range 0-5)	
	BVM	MVM	BVM	MVM	BVM	MVM	BVM	MVM
Leader competence								
Total Competence	0.24**	0.20*	-	-	-	-	-	-
Competence Mediation	-	-	0.33***	0.38***	-	-	-	-
Competence Paradigm	-	-	-	-	0.37***	0.21**	-	-
Competence Specificity	-	-	-	-	-	-	0.34***	0.17*
R^2	0.02	0.11	0.03	0.06	0.07	0.1	0.04	0.07
Adjusted R^2	0.02	0.10	0.03	0.05	0.07	0.09	0.04	0.06

* <.05 **<.01 ***<.001 BVM +bivariate model MVM multivariate model

Alpha level =0.05, controlled for exposure to migration, type of service, paradigm of care, and profession.

Discussion

Our study aimed to use a social network analysis to investigate the role of leadership on the diffusion of cultural competence within health care organizations. We hypothesized that health care professionals were more likely to be culturally competent if their most central colleagues were culturally competent as well. We found that the cultural competence of health care staff increased slightly with the cultural competence of the leaders, even after controlling for contextual and sociodemographic variables. These findings support our hypothesis that health care staff was more likely to be culturally competent if their most central colleagues were culturally competent themselves. This influence of the cultural competence of the most central individuals on the cultural competence of the health care staff was observed for all cultural competences, with the exception of communication competence. Communication competence may be more sensitive to the personality traits of the most central individuals such as kindness, empathy, or patience (Johnson, 2009).

There is an important body of literature about the organizational factors influencing cultural competence. The more the organizational environment formally and informally supports and encourages culturally responsive assessment and service delivery, the more health professionals are likely to develop cultural competence. Previous authors recommended the development of positive leadership towards intercultural care or a commitment towards intercultural care in order to facilitate the implementation and/or the diffusion of culturally competent attitudes (Yamada & Brekke, 2008). Champions of cultural competence or, in other words, influential leaders in cultural competence, have been recommended as organizational strategies to support the development of cultural competence at the organizational level (Chrisman, 2007). Despite this acknowledgment of the importance of organizational factors, there have been very few empirical studies assessing the practical effect of such organizational factors on cultural competence (van Driel & Gabrenya, 2013). To our knowledge, our study is one of the first to assess the influence of the cultural competence of leaders on the cultural competence of the health care staff.

The interaction analysis helps to shed light on the mechanism by which leaders may influence other health care professionals: the most central individuals with expert positions had a greater positive impact on the cultural competence of the health care staff than the most central individuals without expert positions. “Expert” leadership would therefore appear to be a crucial determinant of the diffusion of cultural competence among health professionals. In other words, our data suggests that cultural competence is spread among health professionals through role-modeling rather than through the Pygmalion effect or formal leadership (i.e. head nurse). Role-modeling aims to help individuals to learn what cannot be taught, such as empathy, respectful attitudes towards patients, or professionalism (Warhurst, 2011). Consequently, more emphasis needs to be placed on positive role-modeling practices, and thus the social learning of cultural competence, in the education of health professionals as well as in lifelong learning programs. For example, mentorship had been shown to have a positive impact on the development of competences of health professionals (Gawlinski & Becker, 2012). Further studies should examine the role played by peer-effects, as individual behaviors may be more influenced by homophile peers rather than by individuals in a position of authority.

Our study has some limitations. Firstly, the cross-sectional design of the study makes our results vulnerable to reverse causality, particularly given our low R^2, which increased the risk of unobserved confounding factors. Indeed, it could be considered that the cultural competence of the most central individuals might be the result of the average cultural competence of the health care staff and not the cause. In other words, it could be that the cultural competence of the most central individuals represents the cultural competence needs of the service. Previous authors reported that health professionals may influence the attitudes of their leaders (Kean, Haycock-Stuart, Baggaley, & Carson, 2011). The relationship between the leaders and the teams (=the followers) is reciprocal. Johnson found that followers are more “contaminated” by the mood of the leaders than by the content of their speech (Johnson 2009). Therefore, when the relationship is task-oriented and thus related to expertise, leaders are more likely to be the ones in the influential position than the other way around (Livi, Kenny, Albright, & Pierro, 2008). One way to assess the risk of such reverse causality is to control for contextual factors. Indeed, if the cultural competence of the most central individuals depends on the needs of the staff, then controlling for the context should lead to a lower effect. Our analysis showed that the context did slightly confound the leadership effect but it remained significant even after controlling for these confounding factors.

Secondly, we cannot underestimate the risk of a social desirability bias because of the sensitivity of ethnic questions in Belgium (Dauvrin, Derluyn, Coune, Verrept, & Lorant, 2012). We performed several computations to estimate this risk, such as item-missingness and the percentage of straight-lining. Overall we found a low percentage of item-missingness (less than 10%), while the percentage of straight-lining remained low (less than 1%). We can therefore reliably conclude that social desirability bias was not a major issue here. However, as participation rates were lower in health care services identified as having a higher exposure to migration, we cannot exclude the possibility that our data may reflect a “better case” of the cultural competence in health services than the reality.

Cultural competence is acquired among health professionals through role-modeling. Implementation of cultural competence requires an appraisal of inter-professional relationships and a reliance on leadership role-modeling within health care services. Identifying the most central individuals and training them in cultural competence may constitute a new approach to lifelong learning in cultural competence. However, this requires caution as the most central individuals are not always the same people as the formal leaders. Targeting central individuals in interventions must not undermine the authority of those in charge of the health services.

Conflicts of Interest and Sources of Funding

Computational resources have been provided by the supercomputing facilities of the Université catholique de Louvain (CISM/UCL) and the Consortium des Equipements de Calcul Intensif en Fédération Wallonie Bruxelles (CECI) funded by the Fond de la Recherche Scientifique de Belgique (FRS-FNRS). MD has a research fellow grant from the Fond de la Recherche Scientifique de Belgique (FRS-FNRS).

Authors' contributions

MD designed the protocol of the study, collected the data, carried out the analysis of the findings of the COMETH project and drafted the manuscript. VL helped to design the protocol, drafted the manuscript, and contributed to the analysis of the findings. Both authors gave their approval to the final version of the manuscript.

Reference List

Barnes, E., Bullock, A. D., Bailey, S. E. R., Cowpe, J. G., & Karaharju-Suvanto, T. (2013). A review of continuing professional development for dentists in Europe. *European Journal of Dental Education, 17*(SUPPL. 1), 5-17. doi:10.1111/eje.12045.

Barrow, M., McKimm, J., & Gasquoine, S. (2011). The policy and the practice: Early-career doctors and nurses as leaders and followers in the delivery of health care. *Advances in Health Sciences Education, 16*(1), 17-29. doi:10.1007/s10459-010-9239-2.

Beach, M. C., Price, E. G., Gary, T. L., Robinson, K. A., Gozu, A., Palacio, A. et al. (2005). Cultural competence: A systematic review of health care provider educational interventions. *Medical Care, 43*(4), 356-373. doi:10.1097/01.mlr.0000156861.58905.96.

Borgatti, S. P., Everett, M. G., & Freeman, L. C. (2002). Ucinet for Windows: Software for Social Network Analysis (Version 6.416) Harvard, MA: Analytic Technologies.

Brach, C., & Fraserirector, I. (2000). Can cultural competency reduce racial and ethnic health disparities? A review and conceptual model. *Medical Care Research and Review, 57*(SUPPL. 1), 181-217.

Bryan Fuller, J., Hester, K., Barnett, T., Frey, L., & Relyea, C. (2006). Perceived organizational support and perceived external prestige: Predicting organizational attachment for university faculty, staff, and administrators.

Journal of Social Psychology, 146(3), 327-347. doi:10.3200/SOCP.146.3.327-347.

Cameron, I. D., Fairhall, N., Langron, C., Lockwood, K., Monaghan, N., Aggar, C. et al. (2013). A multifactorial interdisciplinary intervention reduces frailty in older people: Randomized trial. *BMC Medicine, 11*(1), 65. doi:10.1186/1741-7015-11-65.

Capelle, V. (2009). Competency and professional identity: Promoting and recognizing know-how to motivate [Compétences et identité professionnelle : Valoriser et reconnaître les savoir-faire pour motiver]. *Soins Cadres de Sante, 18*(71), 19.

Chrisman, N. J. (2007). Extending cultural competence through systems change: Academic, hospital, and community partnerships. *Journal of Transcultural Nursing, 18*(SUPPL. 1), 68S-76S. doi:10.1177/1043659606295692.

Creswick, N., Westbrook, J. I., & Braithwaite, J. (2009). Understanding communication networks in the emergency department. *BMC Health Services Research, 9*. doi:10.1186/1472-6963-9-247.

Curry, S. E., Cortland, C. I., & Graham, M. J. (2011). Role-modelling in the operating room: Medical student observations of exemplary behaviour. *Medical Education, 45*(9), 946-957. doi:10.1111/j.1365-2923.2011.04014.x.

Dauvrin, M., Derluyn, I., Coune, I., Verrept, H., & Lorant, V. (2012). Towards fair health policies for migrants and ethnic minorities: The case-study of ETHEALTH in Belgium. *BMC Public Health, 12*(1). doi:10.1186/1471-2458-12-726.

Dimaggio, P., & Garip, F. (2012). Network effects and social inequality. *Annual Review of Sociology, 38*, 93-118. doi:10.1146/annurev.soc.012809.102545.

Edmondson, A. C. (2003). Speaking up in the operating room: How team leaders promote learning in interdisciplinary action teams. *Journal of Management Studies, 40*(6), 1419-1452.

Ferguson, J. K. (2009). Preventing healthcare-associated infection: risks, healthcare systems and behaviour. *Internal Medicine Journal, 39*(9), 574-581. doi: 10.1111/j.1445-5994.2009.02004.x.

Flodgren, G., Parmelli, E., Doumit, G., Gattellari, M., O'Brien, M. A., Grimshaw, J. et al. (2011). Local opinion leaders: effects on professional practice and health care outcomes. *Cochrane database of systematic reviews (Online),*(8).

Gawlinski, A., & Becker, E. (2012). Infusing research into practice: A staff nurse evidence-based practice fellowship program. *Journal for Nurses in Staff Development, 28*(2), 69-73. doi:10.1097/NND.0b013e31824b418c.

Jirwe, M., Gerrish, K., Keeney, S., & Emami, A. (2009). Identifying the core components of cultural competence: Findings from a Delphi study. *Journal* *of Clinical Nursing, 18*(18), 2622-2634. doi:10.1111/j.1365-2702.2008.02734.x.

Johnson, S. K. (2009). Do you feel what I feel? Mood contagion and leadership outcomes. *Leadership Quarterly, 20*(5), 814-827. doi:10.1016/j.leaqua.2009.06.012.

Kaplan, H. C., Brady, P. W., Dritz, M. C., Hooper, D. K., Linam, W. M., Froehle, C. M. et al. (2010). The influence of context on quality improvement success in health care: A systematic review of the literature. *Milbank Quarterly, 88*(4), 500-559. doi:10.1111/j.1468-0009.2010.00611.x.

Kean, S., Haycock-Stuart, E., Baggaley, S., & Carson, M. (2011). Followers and the co-construction of leadership. *Journal of Nursing Management, 19*(4), 507-516. doi: 10.1111/j.1365-2834.2011.01227.x.

Krajic, K., Strassmayar, C., Karl-Trummer, U., Novak-Zezula, S., & Pelikan, J. M. (2005). Improving ethnocultural competence of hospital staff by training: experiences from the European 'Migrant-friendly Hospitals' project. *Diversity in Health and Social Care, 2*(4), 279-290.

Kreuter, M. W., Lukwago, S. N., Bucholtz, D. C., Clark, E. M., & Sanders-Thompson, V. (2003). Achieving cultural appropriateness in health promotion programs: Targeted and tailored approaches. *Health Education and Behavior, 30*(2), 133-146. doi:10.1177/1090198102251021.

Livi, S., Kenny, D. A., Albright, L., & Pierro, A. (2008). A social relations analysis of leadership. *Leadership Quarterly, 19*(2), 235-248. doi:10.1016/j.leaqua.2008.01.003.

Lo, H. T., & Fung, K. P. (2003). Culturally competent psychotherapy. *Canadian Journal of Psychiatry, 48*(3), 161-170.

Marsick, V. J., & Watkins, K. E. (2007). Tensions surrounding informal learning in the workplace. *Revue Francaise de Pedagogie, 160*, 29-38.

Mostow, C., Crosson, J., Gordon, S., Chapman, S., Gonzalez, P., Hardt, E. et al. (2010). Treating and precepting with RESPECT: a relational model addressing race, ethnicity, and culture in medical training. *Journal of general internal medicine, 25 Suppl 2*, S146-S154.

Priebe, S., Sandhu, S., Dias, S., Gaddini, A., Greacen, T., Ioannidis, E. et al. (2011). Good practice in health care for migrants: Views and experiences of care professionals in 16 European countries. *BMC Public Health, 11*. doi:10.1186/1471-2458-11-187.

Qureshi, A., Collazos, F., Ramos, M., & Casas, M. (2008). Cultural competency training in psychiatry. *European Psychiatry, 23*(SUPPL. 1), 49-58. doi:10.1016/j.eurpsy.2007.11.003.

Renzaho, A. M. N., Romios, P., Crock, C., & Sønderlund, A. L. (2013). The effectiveness of cultural competence programs in ethnic minority patientcentered health care-a systematic review of the literature. *International Journal for Quality in Health Care, 25*(3), 261-269. doi:10.1093/intqhc/mzt006.

Roberts, S. A., Sieczkowski, C., Campbell, T., Balla, G., & Keenan, A. (2012). Implementing and sustaining a hand hygiene culture change programme at Auckland District Health Board. *New Zealand Medical Journal, 125*(1354), 75-85.

Seeleman, C., Suurmond, J., & Stronks, K. (2009). Cultural competence: A conceptual framework for teaching and learning. *Medical Education, 43*(3), 229-237. doi:10.1111/j.1365-2923.2008.03269.x.

Sims, H. (1977). The leader as manager of reinforcement contingencies: An empirical example and a model. In J.G. Hunt & L. L. Larson (Eds.), *Leadership: the cutting edge*. Carbondale: Southern Illinois University Press.

Sterling Livingston, J. (2003). Pygmalion in Management. *Harvard Business Review, 81*(1), 97-106+141.

Taylor, S. L., Dy, S., Foy, R., Hempel, S., McDonald, K. M., Øÿvretveit, J. et al. (2011). What context features might be important determinants of the effectiveness of patient safety practice interventions? *BMJ Quality and Safety, 20*(7), 611-617. doi:10.1136/bmjqs.2010.049379.

Valente, T. V. (2010). Centrality. In *Social Networks and Health. Models, Methods and Applications.* (pp. 81-99). Oxford: Oxford University Press.

van Driel, M., & Gabrenya, J. (2013). Organizational Cross-Cultural Competence: Approaches to Measurement. *Journal of Cross-Cultural Psychology, 44*(6), 874-899. doi:10.1177/0022022112466944.

Warhurst, R. (2011). Role modelling in manager development: Learning that which cannot be taught. *Journal of European Industrial Training, 35*(9), 874-891. doi: 10.1108/03090591111185565.

Yamada, A. M., & Brekke, J. S. (2008). Addressing mental health disparities through clinical competence not just cultural competence: The need for assessment of sociocultural issues in the delivery of evidence-based psychosocial rehabilitation services. *Clinical Psychology Review, 28*(8), 1386-1399. doi:10.1016/j.cpr.2008.07.006.

Zwarenstein, M., Goldman, J., & Reeves, S. (2009). Interprofessional collaboration: Effects of practice-based interventions on professional practice and healthcare outcomes. *Cochrane Database of Systematic Reviews,*(3). doi:10.1002/14651858.CD000072.pub.

CHAPTER 5: Cultural competence in health services in Belgium. Social Proximity and Cultural Competence

The chapter 5 presents a study which aimed at investigating the role of inter-professionals relationships on the diffusion of cultural competences within health care organisations. In this study, we investigated the effect of social proximity on cultural competence among health professionals.

A social network analysis of the role of the social proximity among health professionals on cultural competences

Background

Cultural competence has been widely recommended as a strategy to reduce health inequalities and to improve the quality of care for migrants and ethnic minorities. So far, despite promising results, the effects of cultural competence on the health outcomes of the patients are inconsistent. Indeed, cultural competence is mostly considered as an individual behaviour. But it appears that cultural competence is rather a collective behaviour, lying on the social relationships. We aimed at exploring the influence of the social relationships on cultural competence of health professionals.

Methods

We carried out a social network analysis of 24 inpatient and outpatient health services, selected according to their geographic localisation and their degree of patient-centeredness. All healthcare professionals were requested to fill in a questionnaire tapping their level of cultural competence and their inter-professionals relationships. We computed indicators of social proximity at service-level and individual-level. We performed a factorial analysis to identify the network dimensions. We regressed the indicators of social proximity of the network on cultural competence of the health professionals.

Results

Four concepts emerged from the factor analysis: cohesion, popularity, distance and separation. Regression models indicated slight effects but significant effects of the network dimensions on cultural competence. When controlled contextual factors, these effects disappeared. Moran coefficients were not significant for the cultural competences of the health professionals, meaning that cultural competence is not related to social proximity between health professionals.

Conclusion

Cultural competence is not yet a shared behaviour among health professionals. Positive externalities in the organisation, adoption of cultural competences by elite and influent leaders able to valorise such competences are likely to support the development of cultural competence as norms among health professionals.

Keywords: cultural competence, social proximity, norms, social network analysis

Introduction

Migrants and ethnic minorities (MEM) form a highly heterogeneous group, with various experiences of health status and health conditions [1]. Although some MEM groups may have a better health status than the rest of the population, an important part of MEM have a worse health status than the population of their host country [2]. MEM are more at-risk of developing some non-communicable diseases, such as type 2 diabetes mellitus, or mental health troubles such as chronic anxiety or severe depression [3, 4]. They are more likely to suffer from communicable diseases such as tuberculosis or sexually transmitted infections [5]. Moreover, MEM patients often experience barriers preventing them from accessing adequate health care: linguistic and cultural barriers, administrative and legal obstacles as well as discrimination and racism within health services [6-9]. Consequently, MEM are more at-risk of delaying treatments, misunderstanding the medical prescriptions or experiencing the complications of a chronic disease [10].

To reduce the barriers experienced by MEM, the mainstream strategy consists of supporting the development and the implementation of cultural competence. Cultural competence is "a s*et of congruent behaviours, attitudes and policies that come together in a system, agency or among professionals and enable that system, agency or those professionals to work effectively in cross cultural situations"* (retrieved from Cross et al. 1989 [11]). It may consist, among others, in developing diversity plan in the hospitals, hiring interpreters or additional staff or providing culturally adapted health education. Cultural competence interacts at the individual, meso and macro levels of the health care system [12-14].

Cultural competence is hardly an individual skill. It is a set of non-technical skills that spread among health professionals through a mechanism of complex contagion involving inter-individual interactions and organizational commitment [15]. Indeed cultural competence encompasses attitudes such as being respectful, empathy or listening abilities but also the capacity to work in interdisciplinary teams [16]. Moreover, cultural competence requires a strong institutional commitment in the adaptation of the health services to the needs of the patients [17]. The institutional commitment may consist of diversity-oriented hiring policies or the catering facilities adapted to the religious preferences of the patients [14]. In the absence of a positive normative influence at the group-level, health professionals are not likely to adopt cultural competence. Also, cultural competence needs sustainability: they require continual peer support and positive externalities [18]. If a critical mass of health professionals adopt cultural competence, the value of being culturally competent is likely to increase, convincing the rest of the health professionals to adopt such competencies.

However, despite promising results, the effects of cultural competence on the health outcomes of MEM are unclear. Indeed, evidences are lacking on the effects of cultural competence on patient adherence or quality of care [19]. Culturally competent training may increase the stereotypes against MEM patients [20]. Moreover the effects of such training for health professionals are likely to decrease over time. The lack of positive externalities at service or institutional levels contributes to this decreasing effect of the culturally competent training on the quality of care [18].

This supports the need for an alternative approach of cultural competence, moving from an individual perspective to a group-level perspective. We hypothesized that inter-professional ties will play a role in the adoption and maintenance of cultural competences. In a recent review, DiMaggio and Garip highlighted the role played by the inter-professional ties in spreading non-technical skills such as cultural competence [21]. Inter-professionals ties are likely to decrease inequalities if the norms spread across the health care professionals support diversity. Besides, previous studies identified the role of inter-relational networks in spreading ideas and practices, including innovations such as cultural competence. Adopting a new practice is more sensitive social factors spread through inter-relational networks, such as the degree of social proximity between adopters and non-adopters, than economic factors related to this new practice [22-24].

In this study, we aimed at exploring the influence of the inter-professional relationships on cultural competence of health professionals. More precisely, we tested the following hypotheses: 1) the structure of the social network will explain cultural competence of the team; 2) the content of the relationships between the health professionals will have a differential impact on the structure of the social network and, by extension, on cultural competence of the health professionals; 3) the closer health professionals are, the more likely they will share the same levels of cultural competence. We tested our hypotheses through a social network analysis of 24 health services in Belgium.

Methods

Design and participants

We conducted a social network analysis as a part of a larger research project – COMETH- (COMpetences in Ethnicity and Health), aiming at evaluating and understanding cultural competence of health professionals in Belgium. The network of health professionals were selected through a cluster-based sampling method. In three distinct geographical zones with a different exposure to migration, we selected the larger hospital and the larger primary care services, based on the annual number of admitted patients per year. Inside each hospital, four services were selected: a chronic patient-centred care service, an acute patient-centred care service, a chronic non-patient-centred care and an acute non-patient-centred care. Each service constituted a network for the analysis.

We ended up with five primary care services and four hospitals, including nineteen health services. The nineteen inpatient health services were: four geriatric units, four intensive care units, four oncology units, three psychiatric units, two communicable diseases units, one palliative care unit and one endocrinology unit. In one setting, the oncology unit also included patients suffering from communicable diseases.

Inside each service, all health professional and volunteers working were invited to participate in the research. Data were collected with a self-administered questionnaire from June 2010 to June 2012. Participants had one month to fulfil the questionnaire. Reminders mailings were sent to the head nurse and the doctor-in-chief of each service each week during the one-month data collection period.

This study was declared at the Hospital-University ethics committee of the Université catholique de Louvain and at the national Privacy Commission of Belgium (Ordinary Declaration n° 1304326281174). Directions of each institution gave a preliminary consent. Participants were free to withdraw their consent at each step of the data collection process.

Measures

Our dependent variable was the cultural competence of the health professionals. Cultural competence was measured through a global score reflecting the total cultural competence of the health professionals and five culturally competent domains: paradigm (aptitude to adapt to different paradigm of care), communication (capacity to provide information to the patients in a clear language), specificity (capacity to provide specific care for specific groups such as irregular migrants), organisation (capacity to adapt organisation of health care to the needs of the patients) and mediation (capacity to negotiate with the patients in case of troubles).

We also measured the sense of responsibility of the health professionals towards adaptation of health care for MEM ([25], see chapter 3). The sense of responsibility was operationalized through five items: adaptation to the values of the host country, the provision of interpreters, patient's wishes to be treated by a male or a female doctor, the provision of written information in a language acceptable to the patient, and adaptation to health beliefs.

Our exposure variable was the structure of the social network[15] of the services. The social structure of each service was identified through a social network design with a closed-network approach (also called complete network data, [26]). Each health professional identified the social relationships he had with their colleagues in a list containing the names of all the staff members (roster method). Three relevant relationships were selected in the professional context [27]: problem-solving (to whom I ask for help), advice-seeking (to who I ask for an advice to take care of my patients) and socialisation (to whom I ask for informal moments of socialisation such as having a coffee break). We also identified health professionals for who the three relationships were present (cumulated relation) and created an additional set of relationships.

For each service, we computed the following indicators of the social structure for each type of relationship: average distance, average degree, breadth, centralisation, closure, compactness, component ratio, connectedness, centralisation, closure, compactness, component ratio, connectedness, density, diameter, fragmentation, geodesic distance, H-index and in-degree centrality. Average degree is the average number of ties by nodes in the network [22, 28]. Average distance is the average number of ties between two nodes in the network. Breadth represents the range of the network: the larger the network is, the higher the breadth is. Centralisation measures the proportion of hierarchy in a network: the higher the centralisation of the network, the more the network is hierarchic. Compactness is a measure of cohesion in unidirectional networks: the higher is the compactness, the more cohesive is the network. Connectedness is the degree to which any member of a network can reach other members. The ratio of components represents the proportion of sub-groups in a network that are connected within, but disconnected between sub-groups. If a graph contains one or more isolated nodes, these nodes are components. Density is *“the number of connections in the network reported as a fraction of the total links possible”* [29]. Closure is similar to density: a high closure means that all nodes in the network are

---

[15] In the vocabulary of social network, an individual is called “node” and a relationship is called “tie”.

extremely connected. Diameter is *“the longest distance between connected nodes”* [29]. Fragmentation is measured through the count of the number of components. Fragmentation of value 1 means that there is no fragmentation. When every node is isolated, the maximum fragmentation is reached: each node stands for a component. Geodesic distance is the number of ties in the shortest possible walk from one node to another [28]. The H-index is also a measure of cohesion. It measures the maximum numbers such that h nodes each have ≥ h neighbours [30].In-degree centrality is defined as the number of links (or ties) received by an individual. The higher the in-degree is, the more central the individual is in the network [29, 31].

The association between cultural competence of health professionals and the social structure of the network could owe to contextual confounding factors. The contextual factors included objective and subjective exposure to migrant and ethnic minority groups and service-level factors. We measured the objective exposure to migration according to the geographical zone of the service. We identified three zones: low exposure to migration, medium exposure, or high exposure. We used the frequency of exposition to intercultural situations to assess the subjective exposure to migration as experienced by the health professionals. Service-levels factors were the paradigm of care (centred-care versus non-centred care), the length of stay (acute unit versus chronic unit), the type of service (intensive care, geriatrics, and psychiatry, oncology – including the palliative care unit and the endocrinology unit-, communicable diseases units, and primary care services), and the institution.

Analysis

The analysis unfolded in several stages. First, we computed descriptive statistics of cultural competence and social network parameters. We compared the social network parameters between the different types of services. Secondly, we did a factor analysis to evidence the correlations across the network parameters. After the factor analysis, we tested the normality of the distribution of the factors.

Thirdly, we regressed the network parameters retrieved from the factor analysis on cultural competence of the health professionals and their sense of responsibility. The final model was controlled for contextual factors such as subjective exposure, objective exposure, paradigm of care and the type of service. The control variables were selected in a stepwise regression. The stepwise regression captured the confounding variables likely to be correlated with both contextual factors and the network parameters. To account for the within-service clustering, we introduced the Huber sandwich white estimator [35, 36].

We computed Moran's I and reciprocity to identify the social proximity of the individuals. Moran's I is a measure of social proximity at group-level [32,33]. Similar to the coefficient of correlation of Pearson, the Moran's I includes the spatial observation localization through matrix of distance. The Moran's I varies between -1 (no social proximity effect) and +1 (strongest level of social proximity). We computed the Moran's I based on cultural competence of health professionals.

Reciprocity is the proportion of reciprocal ties among all ties of the individual, if computed at individual-level, or among all the ties of the network, if computed at network-level. High level of reciprocity indicates the likelihood of engaging in specific behaviours together or influencing each other. A reciprocal link is a link in which the direction goes both ways [22, 34]. For example, if the individual A (=ego) chooses the individual B (=alter), then the individual B chooses the individual A. In our study, we computed reciprocity at dyadic level (between two individuals). We correlated the cultural competence among dyads and we regressed cultural competence of alters on cultural competence of egos. Statistical analyses were made with the software SAS 9.2 and computations of the measures of social network were made with the software UCINET 6.416 [37].

Results

Descriptive statistics

The overall participation rate was 66% (n=575/876). Majority of the respondents were nurses (59.7%). Administrative and social staff represented 15.3% of the participants, allied health professionals represented 13% of the participants, and physicians, including both general practitioners and hospital-based doctors, represented 12% of the participants.

Table 1 presents the mean score of cultural competence and the mean score of responsibility of health professionals in the COMETH study in Belgium in 2010-2012. The score of cultural competence ranged from 0 to 75. The higher the score is, the more the health professionals reported themselves as culturally competent. The mean score of cultural competence is 48.3 (SD 8.67). The score of total responsibility ranged from 0 to 35. The higher the score is, the more the health professionals put the responsibility towards adaptation of health care on the patients. The mean score of total responsibility is 18.4 (SD 3.95).

Table 1: Cultural competence and sense of responsibility towards adaptation of health care of health professionals in the COMETH study in Belgium in 2010-2011(n= 575)

	Mean (SD)
Cultural competence (range)[1]	
Score of total cultural competence (0-75)	48.3 (8.67)
Communication (0-5)	3.40 (0.04)
Health service organisation (0-5)	3.34 (0.08)
Delivery of specific health care (0-5)	3.19 (0.09)
Mediation of conflicts (0-5)	2.99 (0.12)
Adaptation to different health care paradigms (0-5)	2.89 (0.06)

Table 1 (continued)

	Mean (SD)
Sense of responsibility (range)^2	
Score of total responsibility (7-35)	18.4 (3.95)
Adapting to the values (1-7)	4.3 (1.49)
Providing gender concordant health professional (1-7)	4.2 (2.04)
Providing interpreters (1-7)	3.5 (1.65)
Providing written information (1-7)	3.4 (1.58)
Adaptation to the health beliefs (1-7)	3.0 (1.25)

[1] The higher the score is, the more the health professionals are culturally competent.

[2] The higher the score is, the more the health professionals put the responsibility towards adaptation of health care on the patients.

Table 2 presents the descriptive statistics of network parameters by relationship in the total sample (n=575) in the COMETH project in Belgium in 2010-2012. We observed differences between the different types of relations although none of these differences were significant. The mean centralisation was the higher for the relationship “problem-solving” (39.47%) and the lower for the relationship “cumulated” (26.69%). We also observed differences for some network parameters between the types of services. For example, the centralisation was the lower in geriatrics (34.44%) and the higher in oncology (39.12%) for the relationship “advice-seeking” (36.62%). Overall, mean reciprocity was over 50% for the three relationships (table 2). Mean reciprocity was the highest for the socialisation relationship (58%) and the lowest for the problem-solving relationship (51%). At service-level, reciprocity varies between services and between relationships. The highest mean reciprocity was found in a primary care service with a low exposition to migration for the advice-seeking relationship (0.77, STD 0.42) and for the socialisation relationship (0.80, STD 0.40). The highest mean reciprocity was found in an oncology unit in a hospital with a median exposition to migration for the problem-solving relationship (0.71, STD 0.45). The lowest mean reciprocity was found in a geriatric unit in the same hospital for the problem-solving relationship (0.23 STD 0.43). The lowest mean reciprocity was found in an intensive care unit in a hospital with a median exposition to migration (0.29 STD 0.45). The lowest mean reciprocity was found in an oncology unit in a hospital with a low exposition to migration (0.40 STD 0.49).

Table 2: Descriptive statistics of network parameters by type of services and for the sample (n=575) in the COMETH project in Belgium in 2010-2012

	Relations							
	Advice-seeking		*Problem-solving*		*Socialisation*		*Cumulated relations*	
Network parameters	Mean	STD	Mean	STD	Mean	STD	Mean	STD
Average Degree	13.00	7.85	12.49	7.54	11.19	6.64	5.83	3.47
Average Distance	1.53	0.19	1.59	0.20	1.59	0.29	1.86	0.35
Breadth	0.32	0.08	0.32	0.08	0.38	0.14	0.60	0.12
Centralisation (%)	36.62	7.97	39.47	11.85	28.56	7.38	26.69	8.39
Closure	0.68	0.11	0.66	0.10	0.66	0.12	0.53	0.12
Compactness	0.67	0.10	0.67	0.10	0.60	0.15	0.38	0.10
Component Ratio	0.09	0.09	0.06	0.09	0.15	0.13	0.37	0.14
Connectedness	0.90	0.13	0.93	0.12	0.83	0.18	0.60	0.17
Density (%)	0.45	0.09	0.43	0.10	0.39	0.14	0.21	0.07
Diameter	3.24	0.64	3.32	0.60	3.54	0.85	4.14	1.13
Fragmentation	0.09	0.09	0.06	0.07	0.15	0.14	0.38	0.15
Geodesic Distance	0.57	0.08	0.60	0.10	0.62	0.15	0.77	0.19

Table 2 (continued)

	Relations							
	Advice-seeking		*Problem-solving*		*Socialisation*		*Cumulated relations*	
Network parameters								
	Mean	STD	Mean	STD	Mean	STD	Mean	STD
H-index	14.06	8.69	13.56	8.32	12.67	7.99	8.16	5.02
In-degree centrality	13.02	7.92	12.40	7.66	11.10	6.70	5.83	3.46
Reciprocity (%)	0.54	0.50	0.51	0.50	0.58	0.49	/	/

Factor analysis

We first made an exploratory factorial analysis with 14 factors (one factor by network variable included in the model). Based on the scree plot after Varimax rotation, four factors emerged from the factorial analysis. Factor 1 is labelled “Popularity” and includes 3 items: Average degree (0.96), H index (0.96), and In-degree centrality (0.96). Factor 2 is labelled “Distance” and includes 3 items: Average distance (0.91), diameter (0.92), and geodesic distance (0.97). Factor 3 is labelled “Cohesion” and includes 2 items: density (0.95) and compactness (0.87). Factor 4 is labelled “Separation” and includes2 items: components ratio (0.90) and fragmentation (0.93). The results are based on the rotated factor pattern of the social network variables for the cumulated relationship. The same pattern of rotation was observed for the three other relationships.

Regression models

Overall, in the bivariate regression model, we did not find any consistent effect across the different variables (table 3). We found a slight negative significant effect for the H index on cultural competence for the advice-seeking relationship and the problem-solving relationship. We found a slight negative significant effect for the geodesic distance on cultural competence for the advice-seeking relationship. No effects were found for the density or the fragmentation.

Overall, in the multivariate model, the effects of the social network indicators did not remain when controlled for contextual factors although the effects of such contextual variables varied between the 4 relationships. Working in a psychiatric unit had a slight but significant positive effect on cultural competence for the four relationships. Working in geriatrics had a slight significant negative effect on the cultural competence only for the advice-seeking relationship. Working in a zone with a low exposition to migration had a slight significant negative effect on the cultural competence for the advice-seeking relationship and the problem-solving relationship.

Table 3: Network parameters predicted by the contextual variables of health services for the advice-seeking relationship, in the COMETH study in Belgium, 2010-2012 (n = 24)

	Network parameters[1]			
	Density	*Geodesic Distance*	*Fragmentation*	*H-Index*
Intercept	0.43***	0.6***	0.33***	21.29***
Types of services				
Psychiatry	-0.02	-0.03*	-0.1***	3.9***
Communicable diseases	-0.02 p=0.340	-0.03*	0.10***	1.14 p=0.317
Geriatrics	0.01 p=0.308	-0.02*	-0.06***	4.21***
Intensive care	-0.08***	-0.03*	-0.02 p=0.111	8.11***
Oncology	-0.02	-0.07***	-0.05***	-2,29**
Primary care(ref)	0	0	0	0

Table 3 (continued)

	Network parameters			
	Density	*Geodesic Distance*	*Fragmentation*	*H-Index*
Objective exposure to migration				
High exposure	0.03*	-0.01 p=0.450	-0.02*	-9.76***
Medium exposure	0.04***	0.01 p=0.267	0.06***	-7.51***
Low exposure (ref)	0	0	0	0
Subjective exposure to migration	0.001**	-0.005**	0.0 p=0.930	-0.08***
Paradigm of care				
Patient-centred care	-0.02***	-0.01***	0.02*	-5.10***
Non patient-centred care	0	0	0	0
R^2	0.22	0.07	0.29	0.76

***p<0.0001 *p<0.05

[1] Only parameters retrieved from the factor analysis are presented. Same pattern was observed for the other relationships.

Social proximity and cultural competence

Overall, social proximity at network-level, based on the Moran's I, for cultural competence and sense of responsibility was not significant for any of the relationships. Although our results were non-significant, they appear to be mostly negative, supporting the hypothesis that there is no diffusion of cultural competence through social relationships (table 4).

Table 4: Coefficients of Moran's for the total cultural competence in the advice-seeking relationship by service

	Services					
	1	*2*	*3*	*4*	*5*	*6*
Moran's I	-0.20 p=0.807	-0.17 p=0.640	-1 p=0.500	-0.04 p=0.454	-0.01 p=0.285	-0.05 p=0.520

Table 4 (continued)

	Services					
	7	*8*	*9*	*10*	*11*	*12*
Moran's I	-0.38 p=0.546	-0.17 p=0.744	0.01 p=0.152	-0.05 p=0.426	-0.11 p=0.712	-0.03 p=0.334

Table 4 (continued)

	Services					
	13	*14*	*15*	*16*	*17*	*18*
Moran's I	-0.02 p=0.232	-0.07 p=0.7238	-0.003 p=0.241	0.03 p=0.241	-0.03 p=0.443	-0.06 p=0.633

Table 4 (continued)

	Services					
	19	*20*	*21*	*22*	*23*	*24*
Moran's I	0.06 p=0.106	-0.06 p=0.106	-0.06 p=0.106	-0.18 p=0.666	0.01 p=0.289	-0.02 p=0.301

Alpha level= 0.05

We correlated cultural competence of egos with cultural competence of alters for the reciprocal and non-reciprocal relationships (table 5). None of the correlations was significant at alpha-level 0.05. No significant correlation was found for reciprocal or non-reciprocal relations or for each domain of cultural competence.

Table 5: Correlations coefficients between the total cultural competence of egos and the total cultural competence of alters in the COMETH study[16]

	Total competences of egos	
	Reciprocal relations	*Non-reciprocal relations*
Total competences of alters	0.007 p=0.6675	0.007 p=0.0001

Alpha level= 0.05

Discussion

By the way of a social network analysis, our study aimed at exploring the influence of the inter-professional relationships on cultural competence of health professionals among 24 Belgian health services. Our study investigated the effects of the social structure and the social proximity.

Several findings emerge from our study. First, after the factor analysis, we identified four variables describing the various aspects of the social structure of the network. A previous factor analysis identified high correlations between network measures but these correlations were considered as non-reflective of common underlying concepts by the authors [38]. Second, we found that the structure of the social network did not explain cultural competence of the team. However we identified strong contextual covariates for the structure of the networks. It then appears that the context models the social structure of the services and, consequently, cultural competence of the health professionals. Previous studies highlighted that the structure of the network is influenced by its surrounding context [39].Third, we found differences between the three types of social relationships but these differences were not significant. The three social relationships did not have any differential impact on the structure of the social networks of the services. This result was quite surprising. Indeed, the socialisation relations have been identified as the most powerful relationships in spreading information, both positive and negative, as it was observed for gossips on the workplace [40]. Creswick found different patterns of communication among health

---

[16] Results presented here are results for the advice-seeking relationship.

professionals when considering 3 distinct relationships [27, 41]. Fourth we did not find any evidence that the social proximity between health professionals played a role in the diffusion of cultural competence in health services. However previous studies reported that social proximity influences professional behaviours [27] or job satisfaction [42]. Identification of the nurses with their workplace is increased by dense communication networks among nurses [43]. Moreover the dense communication networks of nurses increase their ability to work with patients suffering from dementia [43].

Why being culturally competent is not a shared behaviour between health professionals? It is likely that cultural competence is not a shared behaviour because it is not yet a norm among health professionals. Cultural competence as norms will exist if the individuals perceive that being culturally competent is appropriate, optimal, or correct when providing health care for ethnic minorities [44]. Indeed, if the health professionals feel responsible for adopting the norm of being culturally competent, they will be more likely to do so. But previous studies showed that health professionals do not feel responsible to adapt health care to migrant patients (chapter 3, [25]), especially when it comes to values and integration. Adaptation to the values of the patients refers to an effective process of integration of migrants in their host country. It then includes the labour market, acculturation, or the social activities [45]. Attitudes of the health professionals may then reflect the general attitudes of the population in the host country. Political opinions influence the perception of health professionals towards adaptation of health care to migrants [46].

Cultural competence needs to be supported by “champions” and influent leaders among the health services [18]. Leaders, both formal and informal, contribute to the implementation of culture of quality and safety for the patients [47,48] such as the prevention of nosocomial infections [49] and the hand-washing culture [50]. They also influence professional practices and health care outcomes [51]. We previously found that cultural competence of the leaders influenced cultural competence of the health care staff when the leadership was based on the expertise (chapter 4). Informal leaders play an important role in the spread of attitudes and adoption intentions [52]. Champions in cultural competence increase the likelihood of adopting culturally competent behaviours [18]. If a critical mass of health professionals adopt cultural competence, the value of being culturally competent is likely to increase, convincing the rest of the health professionals to adopt such competencies. In fact, norms of cultural competence are likely to arise from inter-professional relationships if these relationships aim to resolve uncertainty and conflicts when caring for ethnic minorities by changing the attitudes of health professionals [44].

At institutional level, being culturally competent needs to be promoted by elite. Elites, because of their exposition to some resources, play a key role in the diffusion of new practices among their counterparts who do not beneficiate from such resources [53]. In fact, norms are often spread by elites and its adoption by these elites influence the adoption by the rest of the society [54]. In hospitals, health professionals working in “high-tech” wards are often considered as members of elite [23, 55] but these “high-tech” services are more often organised according to a biomedical model rather than a patient-centred model and are less likely to spread cultural competence [55]. Indeed, patient-centred models of care pay more attention to the cultural and socioeconomic factors surrounding patients [56, 57] and are then more likely to promote culturally competent health care.

Moreover, such as innovations in health care, the norms of cultural competence need sustainability from the organisation [14, 58]. The sustainability of cultural competence will be supported by the availability of the resources to cope with diversity. Institutional supportive policies and procedures are associated with a positive climate in the organisation towards cultural competence [59]. Positive externalities associated with cultural competence increase the likelihood that health professionals adopt such behaviours [21]. Valorisation of cultural competence by the organisations increases the confidence of health professionals who are already culturally competent [44]. Consequently, they may share their competencies with their colleagues when caring for migrant patients and increase the adequacy and the quality of care for the patients. The social validation of cultural competence by the peers is likely to create a norm of cultural competence by transforming a positive evaluation of culturally competent attitudes into a positive normative evaluation [44].

Our study has some limitations. Despite a mean participation rate of 60%, our data did not reach the minimal threshold of 80% required for social network analysis [60]. However we did not symmetrise the data which may have increase the accuracy of our datasets. Indeed, we can balance the non-response in using the reciprocal nominations of individuals [60]. Further analysis may be based on symmetrised data: we should code a tie when at least one respondent declared having a tie with this person [43]. Furthermore, to control small numbers, we may use Empirical Bayes Estimation in multilevel analysis.

Peer-effects were calculated according to the coefficient of correlation of Moran [32, 33] and through dyadic effects. The coefficients of Moran are based on matrix of contiguity of the social relationships but as the coefficients depend on the matrix, it may affect the estimations of the coefficients [61]. Moreover, technical problems with the UCINET software did not allow a double checking of our results. Further studies should investigate alternative methods to compute peer-effects. Bramoullé and colleagues suggested a method for identifying the peer-effects through an adapted version of the linear-in-means model. Moreover they provided an analysis of the peer-effects on some network characteristics through Monte Carlo stimulations [62]. Lazega and van Duijn developed a logistic regression model for dyadic network data [63].

Network data are also sensitive to social desirability bias. Indeed, there could be divergences between the self-reported interactions and the behavioural measures of interactions [64]. To control this bias, further studies should combine self-reported data and observational studies. Alternative methods to collect more accurate data are methods using cognitive social structures. All respondents are asked to check the names of all the people that an individual is likely to go to. This is reproduced for each individual in the network.

Conclusions

Cultural competence is not yet a norm among health professionals. Further interventions should take into account the role played by informal leaders in the diffusion of cultural competence among health professionals and develop alternative research methods to investigate peer-effects.

Competing interest: None to declare

Authors' contributions

MD designed the protocol of the study, collected the data, carried out the analysis of the findings of the COMETH project and drafted the manuscript. VL helped to design the protocol, drafted the manuscript and contributed to the analysis of the findings. Both authors gave their approval to the final version of the manuscript.

Acknowledgements

Computational resources have been provided by the supercomputing facilities of the Université catholique de Louvain (CISM/UCL) and the Consortium des Equipements de Calcul Intensif en Fédération Wallonie Bruxelles (CECI) funded by the Fond de la Recherche Scientifique de Belgique (FRS-FNRS). MD has a research fellow grant from the Fond de la Recherche Scientifique de Belgique (F.R.S.-FNRS). The authors warmly thank Séverine Henrard and Nathan Gurnet for their advices for the statistical analyzes.

Reference List

1. Argeseanu Cunningham S, Ruben JD, Venkat Narayan KM: **Health of foreign-born people in the United States: A review.** *Health and Place* 2008, **14**: 623-635.

2. Lorant V, Van Oyen H, Thomas I: **Contextual factors and immigrants'health status : double jeopardy.** *Health and Place* 2008, **14**: 678-692.

3. Levecque K, Lodewyckx I, Bracke P: **Psychological distress, depression and generalised anxiety in Turkish and Moroccan immigrants in Belgium. A general population study**. *Soc Psychiatry Psychiatr Epidemio* 2008, 431-441.

4. Vandenheede H, Lammens L, Deboosere P, Gadeyne S, De Spiegelaere M: **Ethnic differences in diabetes-related mortality in the Brussels-Capital Region (2001-05): The role of socioeconomic position.** *International Journal of Public Health* 2011, **56**: 533-539.

5. Platt L, Grenfell P, Fletcher A, Sorhaindo A, Jolley E, Rhodes T *et al.*: S**ystematic review examining differences in HIV, sexually transmitted infections and health-related harms between migrant and non-migrant female sex workers**. *Sexually Transmitted Infections* 2013, **89**: 311-319.

6. Karlsen S. Ethnic inequalities in health: the impact of racism. 3. 2007. Race Equality Foundation. Better Health Briefing.

7. Lamkaddem M, Stronks K, Gerritsen AAM, Devill+® WLJM, Essink-Bot ML: **Health and health care utilization of refugees: Follow-up study among people with a residence permit in the Netherlands**. *Nederlands Tijdschrift voor Geneeskunde* 2013, 157.

8. Arnold M, Aarts MJ, Siesling S, Aa MVD, Visser O, Coebergh JW: **Diverging breast and stomach cancer incidence and survival in migrants in the Netherlands, 1996-2009**. *Acta Oncologica* 2013, **52**: 1195-1201.

9. Scheppers E, van Dongen E, Dekker J, Geertzen J, Dekker J: **Potential barriers to the use of health services among ethnic minorities: a review**. *Fam Pract* 2006, **23**: 325-348.

10. Perry BL, Harp KLH, Oser CB: **Racial and gender discrimination in the stress process: Implications for African American women's health and well-being.** *Sociological Perspectives* 2013, **56**: 25-48.

11. Cross T, Bazron B, Dennis K, Isaacs MR. Towards a culturally competent system of care. Edited by CASSP. 1989. Georgetown University Child Development Center.

12. Brach C, Fraserirector I: **Can cultural competency reduce racial and ethnic health disparities? A review and conceptual model**. *Medical Care Research and Review* 2000, **57**: 181-217.

13. Bischoff A. Caring for migrant and minority patients in European hospitals. A review of effective interventions. 2003. Basel, Neuchatel, Swiss Forum for Migration and Populations studies.

14. Karl-Trummer U, Krajic K: Migrant Friendlly Hospitals: Organisations Learn Sensitivity or Differences. In *Migration and Health: Difference sensitivity from an organisation perspective*. Edited by Bjorgren Cuadra C, Cattacin S. Malmö: Malmö University; 2007:42-64.

15. Campinha-Bacote J: **The process of cultural competence in the delivery of healthcare services: A model of care**. *Journal of Transcultural Nursing* 2002, **13**: 181-184.

16. Beach MC, Price EG, Gary TL, Robinson KA, Gozu A, Palacio A *et al.*: **Cultural competence: A systematic review of health care provider educational interventions.** *Medical Care* 2005, **43**: 356-373.

17. Yamada AM, Brekke JS: **Addressing mental health disparities through clinical competence not just cultural competence: The need for assessment of sociocultural issues in the delivery of evidence-based psychosocial rehabilitation services**. *Clinical Psychology Review* 2008, **28**: 1386-1399.

18. Chrisman NJ: **Extending cultural competence through systems change: Academic, hospital, and community partnerships**. *Journal of Transcultural Nursing* 2007, **18**: 68S-76S.

19. Beach MC, Gary TL, Price EG, Robinson K, Gozu A, Palacio A *et al.*: **Improving health care quality for racial/ethnic minorities: A systematic review of the best evidence regarding provider and organization interventions.** *BMC Public Health* 2006, **6.**

20. Seeleman C, Suurmond J, Stronks K: **Cultural competence: A conceptual framework for teaching and learning**. *Medical Education* 2009, **43**: 229-237.

21. Dimaggio P, Garip F: Network effects and social inequality. *Annual Reviews of Sociology* 2012, 38:93-118.

22. Valente TV: *Social Networks and Health. Models, Methods, and Applications*. Oxford: Oxford University Press; 2010.

23. Burke MA, Fournier GM, Prasad K: **The diffusion of a medical innovation: Is success in the stars?** *Southern Economic Journal* 2007, **73**: 588-603.

24. Burke MA, Fournier GM, Prasad K: T**he diffusion of a medical innovation: Is success in the stars? further evidence.** *Southern Economic Journal* 2009, **75**: 1274-1278.

25. Hudelson P, Perron NJ, Perneger TV: **Measuring physicians' and medical students' attitudes toward caring for immigrant patients**. *Eval Health Prof* 2010, **33**: 452-472.

26. Valente TV: **Methods**. In *Social Networks and Health. Models, Methods, And Applications*. Oxford: Oxford University Press; 2010:41-60.

27. Creswick N, Westbrook JI, Braithwaite J: U**nderstanding communication networks in the emergency department**. *BMC Health Services Research* 2009, **9**.

28. Hanneman R, Riddle M: *Introduction to social network methods*. Riverside, CA: University of California; 2005.

29. Valente TV: **Centrality**. In *Social Networks and Health. Models, Methods and Applications.* Oxford: Oxford University Press; 2010:81-99.

30. McCarty C, Jawitz JW, Hopkins A, Goldman A: **Predicting author h-index using characteristics of the co-author network.** *Scientometrics* 2013, **96**: 467-483.

31. Borgatti SP: **Centrality and network flow**. *Social Networks* 2005, 27: 55-71.

32. Moran PA: **Notes on continuous stochastic phenomena**. *Biometrika* 1950, **37**: 17-23.

33. Kelejian HH, Prucha IR: **On the asymptotic distribution of the Moran I test statistic with applications.** *Journal of Econometrics* 2001, **104**: 219-257.

34. Skvoretz J, Agneessens F: **Reciprocity, multiplexity, and exchange: Measures**. *Quality and Quantity* 2007, **41**: 341-357.

35. Maas CJM, Hox JJ: **Robustness issues in multilevel regression analysis.** *Statistica Neerlandica* 2004, **58**: 127-137.

36. Freedman DA: **On the so-called "Huber Sandwich Estimator" and "robust standard errors"**. *American Statistician* 2006, **60**: 299-302.

37. Borgatti SP, Everett MG, Freeman LC. Ucinet for Windows: Software for Social Network Analysis. [6.416]. 2002. Harvard, MA, Analytic Technologies.

38. Wensing M, van Lieshout J, Koetsenruiter J, Reeves D: **Information exchange networks for chronic illness care in primary care practices: An observational study.** *Implementation Science* 2010, **5.**

39. Easley D, Kleinberg J: **Networks in Their Surrounding Contexts.** In *Networks, Crowds, and Markets: Reasoning about a Highly Connected World.* Cambridge: Cambridge Universit Press; 2010:85-118.

40. Grosser TJ, Lopez-Kidwell V, Labianca G: **A social network analysis of positive and negative gossip in organizational life**. *Group and Organization Management* 2010, **35**: 177-212.

41. Creswick N, Westbrook JI: **Social network analysis of medication advice-seeking interactions among staff in an Australian hospital**. *International Journal of Medical Informatics* 2010, **79**: e116-e125.

42. Van Beek AP, Wagner C, Spreeuwenberg PP, Frijters DH, Ribbe MW, Groenewegen PP: **Communication, advice exchange and job satisfaction of nursing staff: A social network analyses of 35 long-term care units.** *BMC Health Services Research* 2011, **11**.

43. van Beek APA, Wagner C, Frijters DHM, Ribbe MW, Groenewegen PP: **The ties that bind? Social networks of nursing staff and staff's behaviour towards residents with dementia**. *Social Networks* 2013, **35**: 347-356.

44. Friedkin NE: **Norm formation in social influence networks.** *Social Networks* 2001, **23**: 167-189.

45. Rea A, Tripier M: *Sociologie de l'immigration*. Paris: La Découverte; 2008.

46. Paez KA, Allen JK, Beach MC, Carson KA, Cooper LA: **Physician cultural competence and patient ratings of the patient-physician relationship**. *Journal of General Internal Medicine* 2009, **24**: 495-498.

47. Dixon-Woods M. Vulnerable groups and access to health care: a critical interpretive review. Report for the National Co-ordinating Centre for NHS Service Delivery and Organisation R & D (NCCSDO). 2005.

48. Kaplan HC, Brady PW, Dritz MC, Hooper DK, Linam WM, Froehle CM *et al.*: **The influence of context on quality improvement success in health care: A systematic review of the literature**. *Milbank Quarterly* 2010, **88**: 500-559.

49. Ferguson JK: **Preventing healthcare-associated infection: risks, healthcare systems and behaviour**. *Internal Medicine Journal* 2009, **39**: 574-581.

50. Roberts SA, Sieczkowski C, Campbell T, Balla G, Keenan A: I**mplementing and sustaining a hand hygiene culture change programme at Auckland District Health Board.** *New Zealand Medical Journal* 2012, **125**: 75-85.

51. Flodgren G, Parmelli E, Doumit G, Gattellari M, O'Brien MA, Grimshaw J *et al.*: **Local opinion leaders: effects on professional practice and health care outcomes.** *Cochrane database of systematic reviews (Online)* 2011.

52. Weenig MWH: **Communication networks in the diffusion of an innovation in an organization.** *Journal of Applied Social Psychology* 1999, **29**: 1072-1092.

53. Vanderveen KA, Paterniti DA, Kravitz RL, Bold RJ: **Diffusion of surgical techniques in early stage breast cancer: Variables related to adoption and implementation of sentinel lymph node biopsy.** *Annals of Surgical Oncology* 2007, **14**: 1662-1669.

54. Elias N: *La civilisation des moeurs*. Paris: Agora; 1973.

55. Norredam M, Album D: **Prestige and its significance for medical specialties and diseases.** *Scandinavian Journal of Public Health* 2007, **35**: 655-661.

56. Saha S, Beach MC, Cooper LA: **Patient Centeredness, Cultural Competence and Healthcare Quality.** *Journal of the National Medical Association* 2008, **100**: 1275-1285.

57. Bury J: Les modèles sous-jacents : la relation entre les acteurs. In *Education pour la Santé. Concepts, enjeux, planifications*. 3 edition Bruxelles: DeBoeck Université; 1995.

58. Lambooij MS, Engelfriet P, Westert GP: **Diffusion of innovations in health care: Does the structural context determine its direction?** *International Journal of Technology Assessment in Health Care* 2010, **26**: 415-420.

59. Guerrero EG, Kim A: **Organizational structure, leadership and readiness for change and the implementation of organizational cultural competence in addiction health services**. *Evaluation and Program Planning* 2013, **40**: 74-81.

60. Kossinets G: **Effects of missing data in social networks**. *Social Networks* 2006, **28**: 247-268.

61. LeSage JP, Fischer MM: **Spatial growth regressions: Model specification, estimation and interpretation**. *Spatial Economic Analysis* 2008, **3**: 275-304.

62. Bramoullé Y, Djebbari H, Fortin B: **Identification of peer effects through social networks.** *Journal of Econometrics* 2009, **150**: 41-55.

63. Lazega E, Van Duijn M: **Position in formal structure, personal characteristics and choices of advisors in a law firm: A logistic regression model for dyadic network data.** *Social Networks* 1997, **19**: 375-397.

64. Krackhardt D: **Cognitive social structures**. *Social Networks* 1987, **9**: 109-134.

CHAPTER 6: Cultural competence in health services in Belgium. Using social network analysis to study cultural competence

This chapter reports the experiences in holding a research on ethnicity and health with a design of social network analysis. This is the first version of a provisional draft on the application of the social network methods in cultural competence. We aim to identify some methodological issues related to the general design of the empirical study and to share some lessons based on our experiences.

Applying social network methods in research on cultural competence: the case-study of the COMETH - Competences in Ethnicity and Health project- in Belgium

Background

In a previous study, we used social network analysis to investigate whether cultural competence is a socially shared behaviour through a social network analysis among health professionals. In this paper, we aim to report our experience of using this method to analyse the impact of social relationships on the diffusion of cultural competence among health care professionals in Belgium.

Methods

We analysed the data collected during the COMETH study in 24 health services in Belgium in 2010-2012. We analysed the participation at both individual and service levels. We correlated the participation with the characteristics of the health professionals and contextual variables. We performed a regression model to identify the covariates of the participation. We identified the most popular individuals in the health services, based on their in-degree centrality, and we tested whether the popularity of an individual increased his likelihood of participation.

Results

Mean participation rate was 60.6%. Participation highly varied between the different types of services. Rates of missing responses and automatic responses were less than 1% in the whole sample. Regression models indicated that being exposed to migration was significantly associated with non-participation. Working in a primary care service was significantly associated with participation while working in oncology units and communicable diseases units were significantly associated with non-participation. We also observed a positive and significant correlation between popularity and participation.

Conclusion

We share six lessons learned through this research. Social network techniques are useful tools to assess social relationships among health professionals but need to be improved to ensure a greater participation. Further studies should focus on the recruitment procedure and should pay attention to health professionals who are the most exposed to migrants and ethnic minorities.

Keywords: social network analysis, cultural competence, participation, health professionals, centrality

Background

Social network analysis is a useful methodological perspective “to understand these relationships and how they affect behaviours” (in Valente, 2010 page 3 [1]). Numerous studies using social network analysis have been conducted in public health with various objectives: understanding the spread of sexually transmitted diseases, health behaviours or obesity [2-4] , mapping the communication networks between health professionals [5,6] , assessing the collaboration between social and health services [7] as well as identifying the prescribing behaviours of generalist practitioners [8].

In such context, we questioned whether being culturally competent is a socially shared behaviour among health professionals. Cultural competences has been defined as “a set of congruent behaviours, attitudes and policies that come together as a system, agency or among professionals and enable that system, agency or those professionals to work effectively in cross-cultural situation” (from Cross et al 1989 [9]). Health professionals have to adapt their attitudes and their delivery of health care to the needs of migrant patients in order to lower the barriers that prevent these groups from accessing adequate health care. However, despite promising results, evidences of the effects of the culturally competent interventions are still lacking [10] and ethnic health inequities still persist and even increase. Beach and colleagues concluded that evidence is lacking on the beneficial effects of culturally competent training on patient adherence and health outcomes [10].

We hypothesised that inconsistent effects of cultural competence could owe to the underestimation of the social learning and the leadership effects in the acquisition of cultural competence (chapters 4 & 5). Indeed, social learning of competences is influenced by the context, the leadership and the colleagues [11,12]. Positive leadership towards cultural competence is likely to increase the adoption of such competences by the health services [13-15]. Adoption of an innovation by the most influent health professionals is likely to increase his adoption by non-influent individuals [16]. This could explain why, when resources are available to cope with diversity, health professionals tend not to use it if the leaders do not use it. Indeed, when interpreters are easily available in hospitals, physicians prefer to conduct the medical consultation without the support of interpreting facilities [17] but this remains unexplained. In fact, it is likely that if cultural competence is not promoted by the most influent health professionals, the other health professionals will not use it. Leadership influence is exerted through formal network but also through informal networks. The latter especially influences the adoption of attitudes and adoption intentions [18].

Moreover, if positive attitudes are likely to be spread through social relationships, then negative attitudes, such as discriminative attitudes, may also become socially shared behaviours [19,20]. Consequently, negative attitudes towards migrants of the leaders may influence cultural competence of the teams. Being the leader is not necessarily associated with being the most performing individual of the group: the most central general practitioner is not the one with the greater capacity to meet clinical guidelines [8]. Moreover, individuals are more likely to be close to those who share the same opinions [21-23]. Cohesive groups of health professionals may hamper the diffusion of innovative practices [24]. When the innovations require multidisciplinary involvement, such as the cultural competence, the boundaries between health professions may impede the diffusion of the innovations [25].

Implementing cultural competence in health care services requires then an appraisal of the social relationships across health professionals and the influence of these social relationships on cultural competence. We applied methods of social network analysis in 24 inpatient and outpatient health services to assess social relationships and cultural competence among health professionals. To our knowledge, this method has not been used in the field of cultural competence. Within this article, we aimed to report our experience of using this method to analyse the impact of social relationships on the diffusion of cultural competence among health care professionals in Belgium. This is likely to inform researchers willing to implement social network studies in health care settings in sensitive issues.

Methods

This research project is designed according to the methods of social network analysis. We used the data collected within the COMETH project. COMETH project aimed at identifying the cultural competences of Belgian health professionals and their social relationships in a professional context. This section first presents the sampling and recruitment procedures of the COMETH project and the data collection tool. We then present the methods used to analyse the participation. Empirical findings of the COMETH project have been reported in the previous chapters.

Sampling procedure

We used a cluster-based selection model where the unit of sampling was the health service. First, we selected three geographical zones according to the number of foreigner residents in Brussels and Wallonia [26]. The zones were sorted in three categories: low exposure to migration, medium exposure, and high exposure according to the geographical distribution of the foreign population [27].

In a second step, inside each geographical zone, we selected the larger hospital and the larger primary care services. We hypothesised that the primary care services (=outpatient services) would have different perception of the cultural competences as these services have been developed on the grounds of the social justice and the respect of the otherness in delivering health care [28]. No further clustering was made for the primary care services.

In a third step, within the hospitals (=inpatient services), we first assessed the paradigm of care prevalent in the different health services. We hypothesised that patient-centred services would be more in favour of cultural competences than the non-patient-centred services, as the migrant-friendly attitudes have been reported as a part of the patient-centeredness [29]. We also differentiate the chronic care from the acute care, because it implies different forms of health care organisations and may thus influence the attitudes of the health professionals [30]. Consequently, inside each hospital, we then selected at least 4 services: a chronic patient-centred care service, an acute patient-centred care service, a chronic non-patient-centred care and an acute non-patient-centred care.

Recruitment procedure

For each primary care service, we sent a letter to the person-in-charge of the service. In all primary care services, we were invited to present the project during a team meeting and the decision to participate was taken by consensus between health professionals.

For each hospital, we sent a letter to the medical director and the nursing director. We described the project and purposed a meeting for an in-depth presentation of COMETH. Once we had the authorization of the directors in the hospitals, we contacted the head nurse and the head doctor of each hospital ward. In only one hospital, a joint meeting between the head nurse and the head doctor was organized. In the four remaining hospitals, we met separately the head nurse and the head doctor. Again we purposed meeting the whole healthcare team to present the project to clarify the methods and the objectives. The decision of meeting the whole healthcare team was let to the appreciation of the head nurse or the head doctor. We formally met the whole healthcare teams in two psychiatric units, two intensive care units and in one geriatrics ward. We broadly presented the questionnaire but did not explain the hypothesis or the selection process of the services to prevent social desirability bias. Similarly we did not show the cultural competences scales when we met the healthcare teams. To increase the participation, we offered a non-financial incentive (pastries for the coffee break) to the team with the higher participation rate inside each hospital and among the primary care services.

Participants were free to withdraw their consent at each step of the data collection process. Each questionnaire was accompanied by an individual letter reminding the objectives of the study and the contact data of the researchers. The letter also highlighted the importance of a high participation rate and reminded the gift for the healthcare unit with the higher participation rates. Data were collected with a self-administered questionnaire from June 2010 to June 2012. Participants had one month to fulfil the questionnaire. A box was let in each service for collecting the questionnaires. Reminders mailings were sent to the head nurse and the doctor-in-chief of each service each week during the one-month data collection period. Each team had the contact data of the researchers in case of questions. After the descriptive analyses, a personalised feedback was send to the head nurse and the head doctor of each service. We gave them the opportunity to ask for a presentation of the results during a staff meeting. We also sent a mail to the directions of the institutions to inform them about the end of the data collection. We offer them the same opportunity of presenting the results and being informed about the scientific outcomes of the research.

This study was declared at the Hospital-University ethics committee of the Université catholique de Louvain and at the national Privacy Commission of Belgium (Ordinary Declaration n° 1304326281174).

Data collection tool

We adapted the Migrant Hospital scale of cultural competence to the Belgian context and for all health professionals [31,32]. The scale contents 15 differential semantic items covering various aspects of cultural competence. The response ranges from 1 (not at all competent) to 5 (entirely competent). Missing responses were coded as 0. We also used and adapted the scale of relative responsibility developed and validated by Hudelson and colleagues in Switzerland [33]. The scale of relative responsibility contents 5 semantic differentials (table 2): adaptation to the values of the host country, providing interpreters, patient's wish to be treated by a male of a female doctor, providing written information in a language acceptable for the patient and adaptation to health beliefs. Each item ranges from 1 to 7, 1 meaning full agreement that the adaptation is the responsibility of the health professional and 7 meaning full agreement that the adaptation is the responsibility of the patient. The respondents to position themselves: either the adaptation is the responsibility of the patient; either the adaptation is the responsibility of the health professional.

We used social network analysis with a census sampling (also called complete network data) to identify the social relationships between health professionals [34]. The lists were sent by the person-in-charge of each healthcare service and contained the full names of the expected participants, their profession, their gender and the formal leaders. Each health professional identified the social relationships he has with their colleagues in a list containing the names of all the staff members. The respondent had to identify himself in the list to ensure the validity of the social network part.

We validated the questionnaire in two steps. First, we sent the scale to an expert group constituted of health professionals with an expertise in both research and clinical practices. The experts contributed to the validation of the content of the instrument. In a second step, public health students were asked to fill in the questionnaires. Public health students are a representative sample of health professionals, as they include nurses, allied health professionals and physicians. Public health students also assessed the questionnaire post completion. After the data collection in two hospitals and two primary care services, we had to adapt some questions but it did not jeopardize the final results. It may however have influenced the participation rates in the four institutions. Our analysis of the participation did not support this bias. We did not conduct any psychometric evaluation of the scales used. However the factorial analyses were consistent with the literature on cultural competences.

Measures

Our dependent variables were the participation rates, the proportion of missing data and the straight lining in the questionnaires [35]. We used the straight lining as a proxy to assess the social desirability bias [36]. Our exposure variables were the in-degree centrality of the respondents. In-degree centrality is defined as the number of links (or ties) received by an individual. The higher the in-degree is, the more central the individual is in the network [37]. The sociodemographic factors included the profession (nurses and care assistants, physicians and medical assistants, administrative and social staff, allied health professionals) and the gender (men or women).

The contextual factors included objective and subjective exposure to migrant and ethnic minority groups and service-level factors. We measured objective exposure according to the proportion of foreign residents in the geographical zones. Three objective exposures were defined: low, medium and high. We measured subjective exposure through the frequency of exposition to intercultural situations as experienced by the health professionals. A specific scale was developed and adapted to the Belgian context [32,38]. Service-levels factors were the paradigm of care (centred-care versus non-centred care), the length of stay (acute unit versus chronic unit), the type of service (intensive care, geriatrics, and psychiatry, oncology – including the palliative care unit and the endocrinology unit-, communicable diseases units, and primary care services) and the institution.

Analysis

We computed descriptive statistics and tested the independence between the participation and predictive variables of participation at individual and contextual levels. We computed the risk of participating according to the in-degree centrality of the individuals. Statistical analyses were performed with the software SAS 9.2. Social network analysis was computed with the software UCINET[39].

Results

Who participated? What were the barriers to the participation?

Refusals

Two hospitals and one primary care service declined the participation in the project. One of the hospitals was located in a zone with a high exposure to migration. A formal meeting was organised between the nursing direction, the medical direction and the researchers. Although both directions expressed interest for the topic, they declined the participation for internal reorganisation process. Moreover, the medical director had some doubts about the ability to motivate the physicians and surgeons, as the physicians and surgeons are self-employed in this hospital. The second hospital, located in a zone with a low exposure to migration, never replied to any of the contacts we made (mail, electronic mail and phone calls). The primary care service was located in an area with a high exposure to migration and is well-known for its involvement in community-based projects. The staff never replied to any of the contacts, although one of the researchers had internal contacts inside the service. Inside one hospital, located in a zone with a high exposure to migrants, the psychiatric unit declined the participation in the project because of internal problems.

We ended up with five primary care services and four hospitals, including nineteen health services. The nineteen inpatient health services were: four geriatric units, four intensive care units, four oncology units, three psychiatric units, two communicable diseases units, one palliative care unit and one endocrinology/haematology unit. In one hospital, the oncology unit also included patients suffering from communicable diseases. The palliative care unit was included at the request of the nursing direction of the hospital. In one hospital, patients suffering from cancers were treated in two distinct units: oncology/pulmonology and endocrinology/haematology. Both services were included. Consequently, oncology units could be considered as internal medicine units as they included various specialties, at the exception of surgery. It may have influence the results as these oncology units are more difficult to compare inside the same category because of the variations between services.

Participation rates

Table 1 presents the participation rates according to the professions, the gender, the type of services, the institutions, and the objective exposure to migration. We first expected 911 respondents. However, as some health services experienced an important turn-over of health professionals between the first contact and the distribution of the questionnaires, the final number of expected respondents was 940.

Table 1: Participation rates by profession, gender, type of services, institutions and objective exposure to migration among the health professionals contacted in the COMETH project in Belgium in 2010-2012 (n=940)

	Expected number of participants (n)	**Observed number of participants (n)**	**Chi-square**
Profession (n=937)			**5.3 (p=0.150)**
Nurses and care assistants	539	333	
Administrative and social staff	151	98	
Physicians and medical assistants	140	74	
Allied health professionals	107	62	
Formal leaders			**0.02 (p=0.878)**
Yes	47	29	
No	893	541	
Gender (n=933)			**0.12 (p=0.732)**
Women	720	439	
Men	213	127	

Table 1 (continued)

	Expected number of participants (n)	Observed number of participants (n)	Chi-square
Type of services			**58.2*****
Primary care services	98	80	
Psychiatric services	114	83	
Communicable diseases units	47	18	
Geriatrics	160	102	
Intensive care units	272	172	
Oncology units	249	115	
Institution			**52.7*****
Primary care service 1	16	16	
Primary care service 2	14	10	
Primary care service 3	18	17	
Primary care service 4	20	18	
Primary care service 5	30	19	
Hospital 1	338	223	
Hospital 2	175	105	
Hospital 3	233	107	
Hospital 4	96	55	
Objective exposure to migration			**16.5****
Low exposure	368	249	
Medium exposure	428	230	
High exposure	144	91	

***<0.0001 ** <0.001

Mean participation rate was 60.6%. Participation rates did not differ between the professions or between men or women. Participation rate of the formal leaders (head nurses and head doctors) was close to the mean participation rate (62.7%). We therefore expected a higher participation among the formal leaders because they had the more accurate explanation about the objectives of COMETH.

A positive and significant chi-square was found between the participation rate and three contextual variables: type of service, institution and objective exposition to migration. The lower participation rate was found for the communicable diseases units, the higher participation rate was found for the primary care services.

Table 2 presents the mean score of cultural competence and the mean score of responsibility of health professionals in the COMETH study in Belgium in 2010-2012. The score of cultural competence ranged from 0 to 75. The higher the score is, the more the health professionals reported themselves as culturally competent. The mean score of cultural competence is 48.3 (SD 8.67). The score of total responsibility ranged from 0 to 35. The higher the score is, the more the health professionals put the responsibility towards adaptation of health care on the patients. The mean score of total responsibility is 18.4 (SD 3.95).

Table 2: Cultural competence and sense of responsibility towards adaptation of health care of health professionals in the COMETH study in Belgium in 2010-2011(n= 575)

	Mean (SD)
Cultural competence (range)^{1}	
Score of total cultural competence (0-75)	48.3 (8.67)
Communication (0-5)	3.40 (0.04)
Health service organisation (0-5)	3.34 (0.08)
Delivery of specific health care (0-5)	3.19 (0.09)
Mediation of conflicts (0-5)	2.99 (0.12)
Adaptation to different health care paradigms (0-5)	2.89 (0.06)
Sense of responsibility (range)^{2}	
Score of total responsibility (7-35)	18.4 (3.95)
Adapting to the values (1-7)	4.3 (1.49)
Providing gender concordant health professional (1-7)	4.2 (2.04)
Providing interpreters (1-7)	3.5 (1.65)
Providing written information (1-7)	3.4 (1.58)
Adaptation to the health beliefs (1-7)	3.0 (1.25)

Item-missigness rates of the questionnaires

After the reception of the questionnaires, we contacted the services for a second validation of the lists of participants. We excluded the long-term absents and the pregnant women from the expected number of participants, as they were not present during the time of the study (n=35). We adjusted the sample denominator (n=905) and we then obtained a mean participation rate of 63% (570 received /905 expected). Excluding the long-term absents may have jeopardize the accuracy of our data. For example, in one service, eight nurses were on medical or maternity leave during the data collection period. Consequently, they were not considered as participants although they may occupy a central position in the service.

We then assessed the number of valid questionnaires for the social network analysis. Ninety-five per cent of the respondents identified themselves in the social network (n=546). Among the 24 health professionals who did not disclose their names, a third gave several names, preventing us to know their correct identity. The others did not tick the case in regard of their name. When considering the population of reference, we had 40% of missing data for the identification of the participants.

How did respondents participate?

Missing data

We assessed the number of missing data for the cultural competence scales. Overall, 33.9% of the questionnaires had at least one missing observation among the three scales of cultural competences. Among questionnaires with missing data, the mean number of missing data was 6 by questionnaire (STD 9.12). The scale of frequency had the highest number of missing data (21.2%) when compared to the scale of responsibility (17.4%) and the scale of competences (10.6%). We did not observe significant differences in the number of missing data between sensitive items (such as dealing with racist colleagues) and the other items.

Automatic responses

We assessed whether the respondents were "straight liners", that is providing the same response whatever the item. Overall a minority of the respondents were straight liners. There were only 4 straight liners for the scale of frequency of intercultural situations while we identified 82 straight liners for the scale on the relative responsibility. We also assess the existence of a response bias. Indeed, in the social network part, the first persons on the list may be more cited than the last ones. However we did not observe such bias in our data.

Covariates of the participation

Participation was integrated into a regression model in order to identify the predictive covariates of participation (table 3). The type of services was identified as a covariate of the participation. Health professionals who work in primary care services are more likely to participate than health professionals who do not work in primary care services. However health professionals who work in communicable disease units or in oncology units are less likely to participate.

Exposure to migration was also identified as a covariate of the participation. Health professionals who work in health services with a medium or a high exposure to migration are less likely to participate than health professionals who do not work in health services with a medium or a high exposure to migration.

Table 3: Covariates of the participation of health care professionals in the COMETH study in Belgium, 2010-2012 (n = 916)

	Participation	
	Beta	CI95%
Type of services		
Working in a primary care service	0.23***	[0.12; 035]
Not working in a primary care service (ref)		
Working in an oncology unit	-0.17***	[-0.24; -0.10]
Not working in an oncology unit (ref)		
Working in a communicable disease unit	-0.18**	[-0.33;-0.30]
Not working in a communicable disease unit (ref)		

Table 3 (continued)

	Participation	
Exposure to migration		
Working in a service highly exposed to migration	-0.16**	[-0.26; -0.06]
Not working in a service highly exposed to migration (ref)		
Working in a service with a medium exposition to migration	-0.19***	[-0.26;-0.12]
Not working in a service with a medium exposition to migration (ref)		

***<0.0001 **<0.001 alpha level =0.05

Popularity and participation

We tested the relationship between participation and in-degree centrality (=popularity) of the individuals. The risk that a health professional participates increases by 4.3% with the in-degree centrality increases of one unit (OR 1.043, CI95% [1.027; 1.059]).

Feedback to the services

After receiving the feedback, only two services out of 24 asked us to present the results. Two services contacted us to express their disappointment about the results because they did know how to transpose it into practice. They were expecting tips and lessons on how to improve the communication. In 2 services, the low participation rates did not allow the presentation of accurate results for the social network part and led to incomplete feedbacks. In only one institution, the medical direction and the nursing direction contacted us for the follow-up of the project.

Discussion and recommendations

Within this paper, we aimed to describe the strengths and weaknesses of such method in studying cultural competences and to identify the factors influencing the participation in a research project on cultural competences.

Lesson 1: Being the most exposed to the situation does not increase the participation

Participation (and refusals) was influenced by the exposure to the situation. Indeed, we observed that health professionals are less likely to participate when working in a service exposed to migration and when the services are likely to have patients from ethnic minorities such as communicable diseases units. Consequently, our data may reflect a better situation than it is in reality. A possible explanation could be related to a ghetto effect in health services, as it was observed in the educational system. Indeed, the exposure to the migration and the development of intercultural health practices may not follow a linear distribution but rather a distribution shaped as an inverted U. In a first stage, health professionals provide adequate health care to migrant patients and meet their demands. The adequacy and the quality of care may increase the demands from the patients. At certain point in time, health professionals may not be able to provide the health care to the patients because the demands exceed the offers or because of organizational constraints [40,41]. Indeed, health professionals working with vulnerable patients are more at-risk of developing professional stress and burnout [42].Health professionals then reach a “threshold of cultural competences”. Once they reach this threshold, health professionals may begin to develop negative attitudes towards migrants as institutional racism or internalized stereotypes because of the overload of work induced by the patients [43].

On the contrary, working in primary care services was associated with a greater likelihood to participate. All primary care services were primary care surgeries, which are rather progressive segment of primary care in Belgium than hospitals [44]. Most of the primary care activities are managed by self-employed generalist practitioners [45]. An ideology of social justice and equity pervade these primary care surgeries [28]: health professionals who chose to work in such services are more likely to be sensitive to questions of health inequalities. Besides, unlikely to inpatient services, primary care surgeries receive specific funding for community health and health promotion activities [44]. Health professionals in primary care services are then more likely to be involved in non-curative activities.

Further studies should take into account the role played by the context on the participation. An oversampling of services highly exposed to migration may increase the participation rate and ensure a better balance between the three conditions (low exposure/medium exposure/high exposure).

Lesson 2: Participation is also influenced by social network

Recruitment procedures and data collection process somehow highlighted leadership effects at institutional and at service levels. Indeed, participation was higher when the formal leaders were interested in the project and when they formally support the project, by sending personal emails to the head of services or by providing data on the respondents. It also eased the contacts with the heads of services, especially for the medical department. In inpatient services, the cohesion between the nursing staff and the medical staff was somehow a predictor of participation although we did not collect data to validate this finding. When the head nurse and the head doctor were effectively working together, the participation was higher among nurses and physicians. Moreover, presenting the project in a formal meeting was an incentive to participate, as the health professionals may ask their questions or express their concerns. However, as it was a group-meeting, we cannot exclude the possibility that a peer-effect occurred and that those who were not willing to participate did not show up at this meeting. We also observed that presenting the project has somehow modified the practices before beginning the data collection as reported by some health professionals. “For years, I have been saying to her “good morning” every day when I arrive but I suddenly realise that I don’t even know her name. If I want to fill in correctly the questionnaire, I will have to ask her name" [A medical chief talking about the cleaning lady].

We also observed that not all formal leaders were effective in spreading the questionnaires. We found that being popular increases the odds of participating. Popularity in the service is not related to being the formal leader. Consequently, informal leaders play also a role in the participation [18]. Moreover, in some services, informal leaders or gatekeepers impeded the diffusion of the questionnaires. In an inpatient service, the secretary did not distribute the questionnaires and kept the response box at the top of a shelf. When we asked her why she did it, she told us that the topic of the research was not interesting. In this service, we only received six questionnaires out of thirty. In another service, where the secretary had the same task, she ticked the names of the persons who received the questionnaire and we had almost all questionnaires back. In another service, a nurse spread a rumour about the "real" use of the questionnaires. She told her colleagues that the results of the questionnaires would be used to estimate the amount of the salary bonus at the end of the year. Consequently, the first three days, all health professionals participated. When this nurse arrived and began to spread the rumour, the participation decreased and some asked to have their questionnaires back. Despite the efforts of the head nurse to correct the assertion, the participation was definitely blocked by the end of the week. This was a nice illustration of a peer-effect in a hospital ward as gossips and rumours also spread through social relations [46]. An informal interview with the head nurse confirmed that all the close colleagues of the "gossip" nurse did not respond to the questionnaire.

Further studies should identify a priori the most efficient channel of communication inside each service and adapt the study protocol according to the local constraints. Although it is time-consuming, meeting the formal leaders and the whole health care staff support the participation. Identifying a referent in the service (who is not necessarily the head of service) ensures the continuity of the data collection.

Lesson 3: A participation rate of 60% is not enough

Our participation rate was higher than in other studies among health professionals [45]. It ensures a strong validity of our results in the quantitative analysis and the generalisation of the findings to all healthcare professionals. However, despite our efforts to increase the participation rates, we did not reach the threshold of 80% for the social network data [47]. For some analyses, we used close networks; we excluded individuals who were cited by others but did not participate from our database [1]. Eliminating a node may induce inaccuracies, the excluded node may be the most popular individual [48]. Moreover, due to high number of missing individuals in some services, it was not possible to compute network-level parameters and services were excluded from the analysis.

Further studies should adopt social network techniques which are less time-consuming to increase the participation rates for the social network data [49]. A recent research showed that naming 5 individuals is sufficient to have a whole picture of an inter-relational network [50]. Ethnographic observations may complete the data collected through questionnaires [51] and methods of cognitive social structures may ensure the consistence between the declaration of the respondents and the observed behaviours [52,53]. Further studies on social relationships and cultural competences would beneficiate from mixed methods [54-56].

Lesson 4: The first move is the most difficult

Our data showed low rates of missing data and automatic responses. Moreover, using non-anonymous questionnaires did not seem jeopardizing the participation. It seems that, once the health professionals decided to participate, they did it. Consequently, efforts should focus on the recruitment and the barriers to participation.

Further studies should invest more time in the recruitment of the participants and in decreasing the barriers to participation.

Lesson 5: Crossing professional boundaries remains awkward

Our research project was interested in inter-professional relations. Consequently, we enrolled all health professionals working in the health services. To our knowledge, few research projects aim to involve all health professionals. In inpatient services, most of the research projects concern only one profession, sometimes two when it comes to implementation of some technical equipment. We expected a lower participation among social and administrative staff but their participation rate did not differ from other professions. The composition of our final sample is representative of the professional composition in health services. Consequently, our data are likely to reflect what happens in real settings.

However we experienced difficulties in constituting the list of health professionals in health services. Head nurses had the list of the nursing and administrative staff but it was more complicated to have the list of social staff and allied health professionals. As a head nurse told us, “I do not know who my physiotherapist is”. Some health services just had a phone number to call in case of need and never know when the allied health professionals come to see the patients. Moreover, some allied health professionals do not have a mail box in the services and collect information in the patients in the informatics medical file and do not participate at the staff meetings. In fact, it appears that, even in hospital wards, health professions remain separated[57].

Further studies should continue to involve all health professionals but the researchers may be aware that professional boundaries may impede the research. Web-based surveys may be a more adapted design to reach health professionals who move from on service to another, such as social assistants or allied health professionals.

Lesson 6: Great expectations generate great deceptions

We observed that the health professionals were more interested by the investigation on social relationships than on the part of cultural competences.

Indeed, analysing social relationships could highlight the patterns of communication inside the health services and consequently impact the daily practice [6,58,59]. Cultural competences were the outcomes of the relationships but description of the networks could already shed some light on the communication patterns. So far, social network analysis has been mostly used to assess communication network among health professionals [5,60,61]. In one health service, the medical chief asked us to add a specific question for his service to assess whether the division in one large ward in three smaller had impacted the relationships between the health professionals.

However, we did not receive feedbacks from the services after we sent them the descriptive results. We received two formal negative echoes. In fact, it appears that the absence of practical implications in the feedback disappointed the health professionals and consequently led to misunderstanding and disappointment. So far, few researches on social networks have led to interventions in health care services [62].

Further studies should pay more attention to the expectations of the health professionals when participating in research project. We would recommend better differentiating the benefits of such project at scientific level and at clinical level to prevent loss of trust towards research among health professionals.

Conclusion

To our knowledge, our research project was one of the first to assess the impact of social relationships on the diffusion of cultural competences among health care professionals in Belgium. Social network techniques are useful tools to assess social relationships among health professionals but need some improvement to ensure a greater participation. Moreover, for both social relationships and cultural competences, efforts should focus on the recruitment procedure and should pay attention to health professionals who are the most exposed to migrants and ethnic minorities.

Reference List

1. Valente TV: *Social Networks and Health. Models, Methods, and Applications*. Oxford: Oxford University Press; 2010.
2. Christakis NA, Fowler JH: **Social network visualization in epidemiology**. *Norsk Epidemiologi* 2009, **19**: 5-16.
3. Christakis NA, Fowler JH: **The spread of obesity in a large social network over 32 years**. *New England Journal of Medicine* 2007, **357**: 370-379.
4. Christakis NA, Fowler JH: **Contagion in prescribing behavior among networks of doctors.** *Marketing Science* 2011, **30**: 213-216.
5. Creswick N, Westbrook JI, Braithwaite J: **Understanding communication networks in the emergency department**. *BMC Health Services Research* 2009, **9**.
6. Creswick N, Westbrook JI: **Social network analysis of medication advice-seeking interactions among staff in an Australian hospital**. *International Journal of Medical Informatics* 2010, **79**: e116-e125.
7. Nicaise P, Tulloch S, Dubois V, Matanov A, Priebe S, Lorant V: **Using social network analysis for assessing mental health and social services inter-organisational collaboration: Findings in deprived areas in Brussels and London.** *Administration and Policy in Mental Health and Mental Health Services Research* 2013, **40**: 331-339.
8. Fattore G, Frosini F, Salvatore D, Tozzi V: **Social network analysis in primary care: the impact of interactions on prescribing behaviour**. *Health Policy* 2009, **92**: 141-148.
9. Cross T, Bazron B, Dennis K, Isaacs MR. Towards a culturally competent system of care. Edited by CASSP. 1989. Georgetown University Child Development Center.
10. Beach MC, Gary TL, Price EG, Robinson K, Gozu A, Palacio A *et al.*: **Improving health care quality for racial/ethnic minorities: A systematic review of the best evidence regarding provider and organization interventions**. *BMC Public Health* 2006, **6**.
11. Engeström Y, Kerosuo H: From workplace learning to inter-organizational learning and back: The contribution of activity theory. *Journal of Workplace Learning* 2007, 19: 336-342.
12. Marsick VJ, Watkins KE: **Tensions surrounding informal learning in the workplace**. *Revue Francaise de Pedagogie* 2007, **160**: 29-38.
13. Johnstone MJ, Kanitsaki O: **The politics of resistance to workplace cultural diversity education for health service providers: An Australian study**. *Race Ethnicity and Education* 2008, **11**: 133-154.
14. Yamada AM, Brekke JS: **Addressing mental health disparities through clinical competence not just cultural competence: The need for assessment of**

sociocultural issues in the delivery of evidence-based psychosocial rehabilitation services. *Clinical Psychology Review* 2008, **28**: 1386-1399.

15. Chrisman NJ: **Extending cultural competence through systems change: Academic, hospital, and community partnerships**. *Journal of Transcultural Nursing* 2007, **18**: 68S-76S.
16. Burke MA, Fournier GM, Prasad K**: The diffusion of a medical innovation: Is success in the stars?** *Southern Economic Journal* 2007, **73**: 588-603.
17. De Maesschalck S: *Linguistic and cultural diversity in the consultation room: a tango between physicians and their ethnic minority patients.* Ghent University; 2012. Thesis submittec in fulfilment of the requirements for the degree of Doctor in Medical Sciences.
18. Weenig MWH: **Communication networks in the diffusion of an innovation in an organization.** *Journal of Applied Social Psychology* 1999, **29**: 1072-1092.
19. Campus D: **Political discussion, opinion leadership and trust.** *European Journal of Communication* 2012, **27**: 46-55.
20. de Sola Pool I, Kochen M: **Contacts and influence.** *Social Networks* 1978, **1**: 5-51.
21. Flatt JD, Agimi Y, Albert SM: **Homophily and health behavior in social networks of older adults.** *Family and Community Health* 2012, **35**: 312-321.
22. Vigil JM, Venner K: **Prejudicial behavior: More closely linked to homophilic peer preferences than to trait bigotry**. *Behavioral and Brain Sciences* 2012, 35: 448-449.
23. Centola D: An **experimental study of homophily in the adoption of health behavior**. *Science* 2011, 334: 1269-1272.
24. Mascia D, Cicchetti A: **Physician social capital and the reported adoption of evidence-based medicine: exploring the role of structural holes**. *Soc Sci Med* 2011, **72**: 798-805.
25. Ferlie E, Fitzgerald L, Wood M, Hawkins C: **The non-spread of innovations: The mediating role of professionals.** *Academy of Management Journal* 2005, **48**: 117-134.
26. Service Public Fédéral EPME. Population par nationalité par commune 01.01.2010. 2010. Service Public Fédéral, Economie P.M.E. Classes Moyennes et Energie.
27. Perrin N. L'évolution du nombre d'étrangers en Belgique. Edited by Groupe de Démographie Appliquée. 2006. Louvain-la-Neuve, Université catholique de Louvain.
28. Fédération des Maisons Médicales et des collectifs de santé francophones. Charte des Maisons Médicales. 2013.

29. Saha S, Beach MC, Cooper LA: **Patient Centeredness, Cultural Competence and Healthcare Quality**. *Journal of the National Medical Association* 2008, **100**: 1275-1285.
30. Nolte E, McKee M: *Caring for people with chronic conditions. A health system perspective.*, Open University Press edn. Oxford: 2008.
31. Krajic K, Strassmayar C, Karl-Trummer U, Novak-Zezula S, Pelikan JM: **Improving ethnocultural competence of hospital staff by training: experiences from the European 'Migrant-friendly Hospitals' project.** *Diversity in Health and Social Care* 2005, **2**: 279-290.
32. Priebe S, Sandhu S, Dias S, Gaddini A, Greacen T, Ioannidis E *et al.*: **Good practice in health care for migrants: Views and experiences of care professionals in 16 European countries.** *BMC Public Health* 2011, **11**.
33. Hudelson P, Perron NJ, Perneger TV: **Measuring physicians' and medical students' attitudes toward caring for immigrant patients.** *Eval Health Prof* 2010, **33**: 452-472.
34. Valente TV: **Methods**. In *Social Networks and Health. Models, Methods, And Applications*. Oxford: Oxford University Press; 2010:41-60.
35. Eekhout I, De Boer RM, Twisk JWR, De Vet HCW, Heymans MW: **Missing data: A systematic review of how they are reported and handled.** *Epidemiology* 2012, **23**: 729-732.
36. Laveault D, Grégoire J: *Introduction aux théories des tests en psychologie et en sciences de l'éducation.*, 2 edn. Brussels: de boeck; 2002.
37. Valente TV: **Centrality**. In *Social Networks and Health. Models, Methods and Applications.* Oxford: Oxford University Press; 2010:81-99.
38. Bischoff A. Caring for migrant and minority patients in European hospitals. A review of effective interventions. 2003. Basel, Neuchatel, Swiss Forum for Migration and Populations studies.
39. Borgatti SP, Everett MG, Freeman LC. Ucinet for Windows: Software for Social Network Analysis. [6.416]. 2002. Harvard, MA, Analytic Technologies.
40. Truchot D: *Epuisement professionel et burnout. Concepts, modèles, interventions*. Paris: Dunod; 2004.
41. Deliyska B: **Burnout syndrome among health professionals**. *Nephrology, Dialysis and Transplantation* 2011, **17**: 15-19.
42. Felton JS: **Burnout as a clinical entity its importance in health care workers**. *Occupational Medicine* 1998, **48**: 237-250.
43. Paluck EL, Green DP: **Prejudice reduction: What works? a review and assessment of research and practice**. *Annual Review of Sociology* 2009, **60**:339-367.
44. Gerkens S, Merkur S. Belgium. Health system review. 12(5), 1-266. 2010. Healt Systems in Transition.

45. Lorant V, Geerts C, D'Hoore W, Sauwens D, Remmens R, Perelman J. Médecine générale: comment promouvoir l'attraction et la rétention dans la profession ? Edited by KCE Centre Fédéral d'Expertise des Soins de Santé. 90B, 1-154. 2008.
46. Grosser TJ, Lopez-Kidwell V, Labianca G: **A social network analysis of positive and negative gossip in organizational life**. *Group and Organization Management* 2010, **35**: 177-212.
47. Kossinets G: **Effects of missing data in social networks**. *Social Networks* 2006, **28**: 247-268.
48. Kadushin C: **Who benefits from network analysis: Ethics of social network research.** *Social Networks* 2005, **27**: 139-153.
49. McCarty C, Killworth PD, Rennell J: **Impact of methods for reducing respondent burden on personal network structural measures**. *Social Networks* 2007, **29**: 300-315.
50. Merluzzi J, Burt RS: **How many names are enough? Identifying network effects with the least set of listed contacts**. *Social Networks* 2013, **35**: 331-337.
51. Wensing M, van Lieshout J, Koetsenruiter J, Reeves D: **Information exchange networks for chronic illness care in primary care practices: An observational study.** *Implementation Science* 2010, **5**.
52. Krackhardt D: **Cognitive social structures**. *Social Networks* 1987, **9**: 109-134.
53. Brands RA: **Cognitive social structures in social network research: A review.** *Journal of Organizational Behavior*, in press.
54. Kettles AM, Creswell JW, Zhang W: **Mixed methods research in mental health nursing**. *Journal of Psychiatric and Mental Health Nursing* 2011, **18**: 535-542.
55. Curry LA, Krumholz HM, O'Cathain A, Clark VLP, Cherlin E, Bradley EH: **Mixed methods in biomedical and health services research.** *Circulation: Cardiovascular Quality and Outcomes* 2013, **6**: 119-123.
56. Öûstlund U, Kidd L, Wengstr+Âm Y, Rowa-Dewar N: **Combining qualitative and quantitative research within mixed method research designs: A methodological review**. *International Journal of Nursing Studies* 2011, **48**: 369-383.
57. Boyer L, Belzeaux R, Maurel O, Baumstarck-Barrau K, Samuelian JC: **A social network analysis of healthcare professional relationships in a French hospital**. *International Journal of Health Care Quality Assurance* 2010, **23**: 460-469.
58. Creswick N, Westbrook JI, Braithwaite J: **Understanding communication networks in the emergency department.** *BMC Health Services Research* 2009, **9**.
59. Creswick N, Westbrook JI: **The medication advice-seeking network of staff in an Australian hospital renal ward.** *Studies in health technology and informatics* 2007, **130**: 217-231.

60. Van Beek AP, Wagner C, Spreeuwenberg PP, Frijters DH, Ribbe MW, Groenewegen PP: **Communication, advice exchange and job satisfaction of nursing staff: A social network analyses of 35 long-term care units**. *BMC Health Services Research* 2011, **11**.
61. van Beek APA, Wagner C, Frijters DHM, Ribbe MW, Groenewegen PP: **The ties that bind? Social networks of nursing staff and staff's behaviour towards residents with dementia.** *Social Networks* 2013, **35**: 347-356.
62. Chambers D, Wilson P, Thompson C, Harden M: **Social network analysis in healthcare settings: A systematic scoping review**. *PloS one* 2012, **7**.

THIRD PART

Best Practices and

Political Recommendations

to improve Equity in Health Care

for Migrants and Ethnic Minorities

CHAPTER 7: Best practices and political recommendations to improve equity in health care for migrants and ethnic minorities. The case of irregular migrants in Europe

In this chapter, we present a study based on the data of the EUGATE project. Led by Stefan Priebe of the Queen Mary University of London, EUGATE is a European project aiming at identifying best practices in health services for migrants in Europe. This project was held in 16 countries from 2008 to 2010. Funded by the DG SANCO of the European Commission, EUGATE had the following objectives: 1) reviewing legislation, policies, and funding arrangements; 2) assessing systems of health care services, and 3) comparing models of best practice across European Union. EUGATE had to define guidelines for best practices when caring for migrants and disseminate the findings widely among the relevant stakeholder groups in Europe. More on EUGATE http://www.eugate.org.uk/

This chapter has been published as:

> Dauvrin M, Lorant V, Sandhu S, Devillé W, Dia H, Dias S, Gaddini A, Ioannidis E, Jensen NK, Kluge U, Mertaniemi R, Puigpinós I Riera R, Sárváry A, Straßmayr C, Stankunas M, Soares Joaquim JF, Welbel M, Priebe S: Health care for irregular migrants: pragmatism across Europe. A qualitative study. *BMC Research Notes* 2012, 5(1): 99.

This chapter has been presented as an oral communication as following:

- Dauvrin M, Lorant V. *Access to care for undocumented migrants*. Third Conference on Migrant and Ethnic Minorities Health in Europe, Pecs (Hungary), May 2010

List of related publications

- Dauvrin M, Lorant V. Gezondheid van migranten en zorgpraktijken: het probleem van de toegang tot gezondheidszorg. *Medisfeer* 2011, 379: 6-8.
- Dauvrin M, Lorant V. Santé des migrants et pratiques de soins : le cas de l'accès aux soins. *Medisphère* 2011, 379 : 6-8.
- Dauvrin M, Geerts C, Lorant V. Santé des migrants et bonnes pratiques : résultats belges du projet EUGATE. *Santé Conjuguée* 2010,51 : 19-25.
- Sandhu S, Bjerre NV, Dauvrin M et al. Experiences with treating immigrants: a qualitative study in mental health services across 16 European countries*. Social psychiatry and psychiatric epidemiology* 2012.
- Kluge U, Bogic M, Devillé W, Greacen T, Dauvrin M et al. Health services and the treatment of immigrants: Data on service use, interpreting services and immigrant staff members in services across Europe. *European Psychiatry* 2012, 27(S2): S56-S62.
- Devillé W, Greacen T, Bogic M, Dauvrin M et al. Health care for immigrants in Europe: is there still consensus among country experts about principles of good practice? A Delphi study. *BMC Public Health* 2011, 11: 699
- Priebe S, Bogic M, Adany R, Bjerre N, Dauvrin M, Devillé W et al. *Good practice in emergency care: views from practitioners*. In: *Migration and Health in the European Union*, 2011. 978-0-335-24567-3.

Health care for irregular migrants: pragmatism across Europe. A qualitative study

Background Health services in Europe face the challenge of delivering care to a heterogeneous group of irregular migrants (IM). There is little empirical evidence on how health professionals cope with this challenge. This study explores the experiences of health professionals providing care to IM in three types of health care service across 16 European countries.

Results Semi-structured interviews were conducted with health professionals in 144 primary care services, 48 mental health services, and 48 Accident & Emergency departments (total n=240). Although legal health care entitlement for IM varies across countries, health professionals reported facing similar issues when caring for IM. These issues include access problems, limited communication, and associated legal complications. Differences in the experiences with IM across the three types of services were also explored. Respondents from Accident & Emergency departments reported less of a difference between the care for IM patients and patients in a regular situation than did respondents from primary care and mental health services. Primary care services and mental health services were more concerned with language barriers than Accident & Emergency departments. Notifying the authorities was an uncommon practice, even in countries where health professionals are required to do this.

Conclusions The needs of IM patients and the values of the staff appear to be as important as the national legal framework, with staff in different European countries adopting a similar pragmatic approach to delivering health care to IM. While legislation might help to improve health care for IM, more appropriate organisation and local flexibility are equally important, especially for improving access and care pathways.

Irregular migrants, Europe, Qualitative method, Health services, Accessibility

Background

Irregular migrants (IM) are considered to be non-nationals without legal authorisation to stay in Europe on regular terms [1, 2]. In 2008 the estimates for the 27 European Union (EU) states were that 1.9 to 3.8 million people were IM, with patterns of distribution varying between countries [2]. Countries such as Germany or France have extensive experience of IM, while relatively new EU member states, such as Lithuania or Hungary, have only recently become hosts to IM. Public authorities and health agencies have to cope with different groups of IM that experience various difficulties in accessing health care or meeting their specific health needs [3-6]. IM are vulnerable to infectious diseases, psychiatric disorders, and digestive and osteoarticular problems, as well as emotional distress and poor subjective health [7-11].

The obstacles faced by IM when attempting to access and use health care services have been identified from the patient perspective [1, 7, 8, 11] or in legislation [12-15]. However, research has rarely approached the issue from the perspective of health professionals: what the challenges encountered by professionals are when delivering health care to IM across Europe and how they attempt to meet them.

International differences in legal access to care for IM may lead to different practices. Several classifications have attempted to clarify the complex situation of access to care for IM [1, 10, 15]. The *NowHereland* project identified three categories of health care entitlement for IM in the EU: “no rights”, “minimum rights”, and “rights” [16, 17]. The “no rights” category applies when health care access is restricted to such an extent that emergency care is inaccessible. The “minimum rights” category applies where IM can access emergency care or similar services. The “rights” category applies where IM can access services other than emergency care, such as primary and secondary care.

To explore how services approach access and delivery of health care to IM, as experienced by health professionals across Europe, we carried out some research as part of the EUGATE project. The EU-financed EUGATE project aims to assess “Best Practice in Health Services for Immigrants in Europe” in sixteen countries: Austria, Belgium, Denmark, Finland, France, Italy, Lithuania, Germany, Greece, Hungary, Netherlands, Poland, Portugal, Spain, Sweden, and the United Kingdom [18-20]. EUGATE targeted five groups of migrants: labour migrants, refugees, asylum seekers, victims of human trafficking, and IM.

In this paper, we aim to identify the specific challenges experienced by professionals in clinical encounters with IM, with particular attention being paid to the differences between types of services and countries involved in EUGATE. Although there were already several publications from EUGATE, we decided to focus on the particular situation of IM, a particularly vulnerable group for which the European Council has called for more attention. We expected differences between countries and between services due to different legal entitlements. Focusing on IM also allowed us to assess whether legal status has an impact on health professionals’ attitudes.

Results

Of the total sample, 83.5% of the interviewees were clinicians (mostly doctors and nurses) and 16.5% worked as managers within the institutions.

After completing the interviews, we identified three main themes relating to IM: access, notifying the authorities, and communication. We then compared services and countries. Countries were grouped according to the NowHereland categories: “no rights”, “minimum rights, and “rights” [16, 17] [see Table 1 for the classification of countries]. NowHereland categories were chosen as possible explanations for differences between countries.

Access

Because of differences in the organisation and funding of health care systems across participating EUGATE countries, “access” could mean either entitlement or affordable care [21].

All professionals in A&E departments, even in countries belonging to the “no rights” category, reported full access to IM (n=48). However, for primary care, respondents in 16 services (n=144) reported that no access was provided, either because of the absence of legal entitlement or due to financial barriers. Interviewees reported that treatment in A&E departments may be provided in emergency situations without clarification of the patient's entitlement to treatment being required. Furthermore, most A&E professionals reported no differences in delivering health care for IM and patients in a regular situation.

In mental health services, a quarter of respondents reported that it was unlikely for IM to come to their services for treatment. But they stated they would, nevertheless, provide care for an IM should they access the service.

Respondents in 24 A&E departments declared that they provide the same further treatment pathways for IM as for patients in a regular situation. Professionals in primary care and mental health services experienced more difficulties in performing further diagnostic and/or therapeutic interventions due to the restricted access IM face in health care. Prescribing drugs could be really difficult, as the IM patient could not afford it.

> *…because he is not health insured I will not give him a prescription – I cannot give him a prescription and I don't want to give him a private prescription, because he cannot afford it. That's why I actually always solve that problem by giving free medical samples and that works wonderfully...*
>
> ID7, primary care services, Austria

> *…I prescribe the medicines for my own name, if the patient has no money for it…* ID 146, primary care services, Hungary.

Difficulties in continuity of care occurred when supplementary treatment was arranged within the same service or when IM had to be referred to another service. This situation was reported even in countries where IM were guaranteed full rights.

> *If I have to refer him, it will be a hassle (I'm not saying it's not possible). So you can assume that a doctor will have a certain threshold for consulting a specialist. This is also to avoid getting the patient into trouble. For example, if I refer him to the emergency department, he could subsequently receive an 800 euro bill when there's nothing really wrong with him.*
>
> ID 206, primary care services, Netherlands

> *Where it gets complicated is if they need a referral to the hospital. That's where it gets complicated because, although we always do our bit, when they get to the hospital end, they may be charged. The situation at the hospital will be very different, because very different criteria are involved. We don't get involved in these situations. They may or may not be seen by a specialist, if that is what they need. It's not something we can control.*
>
> ID 312, primary care services, UK

Some professionals, especially in primary care, reported transferring IM between services or having to delay treatment while waiting for legal issues surrounding the patient's irregular status to be resolved.

> *An illegal patient would be received and treated illegally…such a patient is entitled to basic medical treatment only. And in theory – they should cover the treatment costs. If they had money, they could pay for the visit and receive a full range of services. And if not, emergency care and basic treatment only…. And perhaps, a doctor would arrange a check-up visit for them, without registering it…*
>
> ID 234, primary care services. Poland

Interviewees in primary care and mental health services also reported informing patients about services that provide free health care and administrative support or referring them directly to such services in order to bypass problems with access in their own service.

Notifying the authorities

Primary care and A&E departments were compared in terms of notifying public authorities, including the police, about IM being treated in their service. Most interviewees in both services reported that they would not inform the police about IM presenting at their service for treatment. Few would inform the police: 10 in primary care services (n=144) and 5 in A&E departments (n=48). In both types of service the tendency to inform the police was stronger in cases where the patient was suspected of being involved in criminal activities.

Conversely, some respondents reported informing the police to help IM or to protect them. Such scenarios included situations in which patients were considered a danger to themselves or to others. The need to identify the patient in critical situations would qualify as reason enough to inform the authorities.

> *No. For several reasons. There is no need for me to inform the police. If the individual was severely injured and he got so bad that you would need to get in touch with relatives or the like you would try through the police. Normally, we will contact the police if we are to get hold a relative we do not know about. If we have an actual identification problem and a need to inform relatives. That situation can arise if it is a catastrophic situation, but otherwise there is no need to contact the police*.
>
> *ID40, A&E department, Denmark*

> *By hook or by crook, we would find out who he is. Insurance, marital status, police, foreigners department.... No idea, we cannot take him into custody to move him into prison hospital.*
>
> *ID 100, A&E department, Germany*

Finally, although many of the interviewees would not inform the police, six primary care services and one A&E department did inform their own managerial staff. This was usually due to financial and organisational problems for which management would be responsible.

Communication

In primary care and mental health services, communication barriers were perceived as more problematic than in A&E departments. In A&E departments, staff emphasised difficulties in reaching a diagnosis due to language barriers, while professionals in primary care and mental health services reported communication difficulties being a more general problem. Interviewees from primary care services discussed issues associated with patients becoming more stressed as a result of not being able to express themselves to professionals.

Health professionals recommended or used professional face-to-face interpreters or telephone interpreting services when they had language barriers with their patients. However staff still reported little use of these interpreting services or not having full access to them. This was attributed to the administrative procedures involved, the lack of funding, or the poor quality of interpreting when available. Consequently, in practice, professionals, especially in primary care services, arranged alternative solutions such as asking children, families, friends, or bilingual employees to act as interpreters.

> *[…]So that's my Chinese I've told you about, an illegal immigrant. She was working illegally in a Chinese restaurant and I found another Chinese*

> *restaurant, and what happened is that they were able to communicate and the owner of that Chinese restaurant who was used to talk with her explained to her that she had appendicitis and that she had to be operated on. And when I told him "one should tell her that", he said "Oh appendicitis, I must look that up in a dictionary" not for the translation but to know what it was, he had never heard that word in French before so he looked the word up and told her she had to be operated on…*
>
> ID 32, Accident & Emergency Department, Belgium

Among non-major themes some interviewees reported problems related to culture, such as the refusal of care due to the health professional being of the opposite gender or due to cultural beliefs that hindered recovery. Two health professionals out of the whole sample reported different expectations about treatment leading to misunderstanding between health professionals and IM.

International comparisons

Despite variations in health care entitlement for IM, most of the countries investigated faced similar issues. No important differences in frequency were noted between countries in the "rights" category and those with only "minimum rights" for IM. In countries in the "no rights" category, communication problems and their consequences were the main theme. "Access problems and their consequences" were cited in all Swedish services while in Finnish services this theme was reported in only 2 services (n=15).

Differences were found between countries regarding notifying the police about IM. In 5 of the 16 countries, interviewees considered informing the police about an IM treated in the service. Three of these countries are considered to provide "minimum rights", while the remaining two were classified as "no rights" countries (see **Table 1**). Although they were classified in the "minimum rights" category, Germany and Lithuania were, during the data collection period, the two countries where there was an obligation of notifying IM to the police. However, only a few health professionals from both countries reported having done this.

Table 1 Classification of European countries according to healthcare entitlement for irregular migrants [a, b]

No Rights	Minimum Rights	Rights
Finland	Austria	France
Sweden	Belgium	Italy
	Denmark	Netherlands
	Germany	Portugal
	Greece	Spain
	Hungary	
	Lithuania	
	Poland	
	United Kingdom	

[a] Categories based on the typology developed in the *NowHereland* project [16, 17]

[b] We present only the countries involved in the EUGATE project.

Although we expected differences due to different legislation regarding access to health care, a quarter of the interviewees stated that there were no differences in the actual care provided for IM compared with patients in a regular situation in the host country.

Nevertheless, although in some countries IM were legally entitled to a wide range of health care services, professionals reported insufficiencies in the actual delivery of care. Where patients did have access to services, the quality of care was reported to be poor due to lack of funds, administrative requirements, and practices and procedures within the service. Consequently, some professionals reported transferring IM to other health care services with better human or material resources. Some professionals suggested that they would consider transferring patients, even when they were allowed to care for them or had the required funds to do so, to avoid the burden of IM on the service. Non-governmental organisations (NGOs) caring for IM were quoted as potential referral agencies, particularly in countries where IM do have access to care, such as Belgium or France.

Discussion

We aimed to identify the challenges experienced by professionals in clinical encounters with IM, with a view to highlighting differences between services and countries. Comparisons between services and countries centred on three themes retrieved from interviews with practitioners and managers: access, notifying the authorities, and communication. Language barriers and restricted access to adequate treatment in the service and further treatment pathways limit the therapeutic options available, lower the quality of care, and jeopardise the continuity of care [22]. These themes are consistent with previous studies among IM or migrants in a regular situation and form a relevant basis for comparison [23, 24].

Staff in primary care and mental health services mainly reported problems relating to language barriers. Although they reported full access to their service, staff in A&E departments mainly reported access issues. In fact, accessing the service does not prevent patients from having other access problems. IM may have to pay extra costs that may prevent them from using the service subsequently. Irregular status may restrict the care available or further treatment. Access had several meanings for the interviewees: in addition to entitlement to care, these included geographical accessibility and financial accessibility. These differences between services may also be linked to the different tasks they perform and the different treatments they provide. Emphasis on talk-based assessment and treatment in mental health requires clear communication for effective outcomes. Further research is needed to explore the influence of clinical tasks and treatment pathways on the problems experienced by health professionals when caring for IM.

In addition, most EU countries have gatekeeping systems for specialised health services, as mental health care [25]. Thus, referral by health professionals may often be required to access mental health care but not A&E departments. This may also explain why professionals in mental health services declared that having an IM patient was rather unlikely for them. Out-of-pocket payments, which may be significant in some countries, could also prevent IM from accessing mental health services.

Although some themes were more commonly reported in some groups of countries than in others, no important differences were observed between countries. The most frequent themes were reported across all of the *NowHereland* country categories: “no rights”, “minimum rights”, and “rights”. Nor did self-reported professional practice differ greatly between countries.

There are four possible reasons for the relatively few differences between countries. Firstly, in countries with “minimum rights” (and assuming the same for “no rights” countries), health professionals may treat IM even though they have no or limited entitlement to access the service. Some professionals considered treating the patient to be more important than abiding by the law [19]. Staffs tend to adopt a more pragmatic approach, which is reflected by their willingness to provide care even where legislation restricts access to health care for IM [26, 27].

Alternatively, they may also apply institutional guidelines or policies regarding health care for IM. This may be the result of broader health policies aimed at improving access to care and quality of care for migrants. Examples of such policies are the “Checking for Change” programme developed by NHS Scotland or the “Migrant-Friendly Hospitals” network. Policies of this kind may increase health professionals’ awareness of ethnicity and migration issues. As health professionals may become more sensitive to migrants’ needs, this could positively influence them when caring for IM.

Consequently, values other than laws may be the drivers when delivering health care to IM. In addition, health professionals sensitive to migration issues tend to work in places where most patients are migrants [28]. These professionals may have a greater familiarity with and empathy for IM issues, and therefore be more inclined to facilitate access to care.

Secondly, there are divergent interpretations of concepts such as “basic health care”, “right to health”, and “health care accessibility” within and between countries, services, and professionals. For example, in Lithuania, one interviewee reported equal access to primary care services, while a second reported no access and a third reported restricted access. Based on our findings, it seems that divergent interpretations of legislation may improve access to care at the national level. This is obviously a contentious topic. Indeed, previous studies have reported divergent interpretations of legislation as a barrier to health care for IM [8, 14]. From the IM’s perspective, divergent interpretations introduce an element of unpredictability in terms of the delivery of health care: IM do not know what their situation is until they see the doctor. The effects of such uncertainty on access deserve more research.

Thirdly, a lack of awareness of the legal requirements for delivering care to IM could be common among health care staff. Indeed, previous studies have shown that staff are not always aware of the legal framework as it applies to health care delivery [29, 30]. In the absence of an incentive framework to deliver health care for IM, professionals’ decision-making may be guided above all by their professional values [26, 31]. They may, as a consequence, deliver health care according to patient need. Therefore implicit rationing may also play a role, especially in a context of scare resources [32]. Such situations may also be unfavourable to IM. It was not uncommon for health professionals in “rights” countries to refer IM to other health services such as NGOs or charitable institutions, despite favourable laws entitling IM to health care.

Finally, even if professionals are aware of the laws regulating health care for IM patients, the procedures for implement these may be inadequate. In health care, putting legal or health policies into practice at the service level may be problematic and may be subject to different interpretations [33, 34]. Consequently, applying the legislation may be left to the discretion of the staff within the service, leading to decisions being made on a case-by-case basis [35, 36]. However, even if health professionals tend to bend the rules, IM may not benefit from such flexible attitudes as they may not be aware of them. Moreover, uncertainty may increase distrust of health care providers in general. Information about “flexible health professionals” will spread unequally across informal networks of assistance and may fail to reach very isolated IM.

No differences in communication issues were observed between countries. All migrants potentially face language barriers when accessing health care systems and these barriers may persist for years after their arrival [37, 38].

This study had certain limitations. It is possible that, especially considering the convenience sampling method used, respondents may have given socially desirable answers, leading to underestimation of problems such as racism or restricted access.

The actual practice in services was not assessed; interviewees reported their own subjective experiences. Staff were interviewed about potential patients who had already presented, having somehow accessed the service, although their entitlement to receive appropriate care may have been restricted. However, even in countries where IM were not fully entitled to access services, staff nevertheless reported that they tried to be helpful and found ways of providing care for IM. Further studies should triangulate results with IM medical records to help assess the effective restriction of care. Further research could be conducted in cooperation with NGOs with extensive experience in registering IM patients’ data, such as Doctors of the World. Alternative research methods, such as the snowball approach and other social network methods, may help us in improving some aspects of triangulation [39].

We selected areas in large cities with high levels of immigration but the situation in rural areas with lower numbers of migrants may be significantly different. Nor do we know how representative the interviews are for other services in the same areas.

Finally, our sample of European countries includes far fewer “no-rights” (n=2) countries than countries classified as providing “rights” or “minimum rights” (n=14), when compared with the *NowHereland* study (9 and 18, respectively). Our results may therefore present a somewhat optimistic picture of the situation in the EU. Further studies may involve all EU countries. Moreover, as the entitlement to health care for IM is still evolving in Europe, new practices may emerge and modify our findings.

Conclusions

This study was one of the first to use a similar methodology across 16 countries to explore practices for treating IM in three types of services. Its aim was to fill the gap in research between macro-level dispositions ensuring access to health care for IM, and staff’s daily practice. It is crucial that entitlements to health care as defined by laws and policies be analysed separately from actual access to health care services on the ground [15]. Differences between legislation and practice have been previously reported from the perspective of IM, but not by health professionals [8]. Such differences may also help with designing solutions designed to ultimately improve access to care for IM.

Access to health care seems to be grounded on the basis of the needs of the IM rather than on their legal status in regards to health care. Some staff reported seeking to care for patients on a case-by-case basis and based on their legal entitlement to care. For professionals, one possible common value is to provide health care regardless of legal or political restrictions. A “deep rooting” of humanism in the minds of health professionals has been reported as a crucial determinant of access to health care for IM [12]. In practice, more factors than legislation alone determine the access to health care of IM [12, 15].

Although most practice was based on pragmatic decisions about delivering health care for IM as efficiently and equitably as possible, clear legislation to ensure access to care for IM was also necessary. It is clear that the quality of care for IM patients could be improved by enacting legislation where it is needed [18, 19, 40]. In the absence of uniform legislation that ensures funding for all types of health care that IM could require, there should at least be clarification of the existing funding rules and local flexibility in terms of arranging health care for IM. Countries with “minimum rights” to health care must maintain their efforts to increase access to outpatient services, notably by reducing the fees and the administrative procedures involved. Finally, more vulnerable groups such as children, the elderly and pregnant women require special attention [15].

Modifying legislation is an important step for countries classified in the “no rights” or “minimum rights” categories, but this alone may not be enough to raise the quality of care. One may conclude from this study that there are ways to be a “pragmatic health professional” when providing health care for IM in different services by working with the available resources and seeking alternative routes of access where possible. NGOs and other charitable organisations, for example, remain an important support to mainstream health institutions in terms of providing health care to IM. This appears to apply to all countries, even those with different “rights” approaches. Taking a pragmatic approach when delivering care to IM, along with improvements to organisational and local flexibility at both policy and practice level, may contribute to improving both the quality of care delivered and the pathways into care.

Availability of supporting data

The full questionnaire of the EUGATE project is available in an additional file.

Method

Setting

In each country, three administrative districts, each with a high proportion of migrants (based on available data or informed estimates), were selected, mostly within the country's capital. Three different services were sampled per zone: Accident and Emergency departments (A&E), primary care services, and mental health services. From those services with the highest percentages of migrant patients, the services with the greatest numbers of patients were selected. The respondents were personnel working within these services who had knowledge and practical experience of providing health care to migrants [18-19]. Within each area, all identified services were contacted directly and no sampling selection was required. Participation was on a voluntary basis. Although there was no systematic registration of refusals, refusal was rather rare. As interviewees were chosen because they were believed to be providing care for migrants, it is likely that very few health professionals refused to participate when migrants were an important target group.

Semi-structured interviews were conducted with health professionals in 144 primary care services, 48 mental health services, and 48 A&E departments, across 16 European countries (total n=240). In each country, the sample was made up of 3 mental health services, 3 A&E departments, and 9 primary care services.

Data collection

Semi-structured interviews were conducted in 2008-2010. The interview schedule was developed in English, piloted in each country, and translated into local languages. The first part of the interview was made up of questions about general experiences when providing health care to migrants. These questions about general experience were open questions about 1) the specific problems encountered with all migrant patients, 2) good practice when delivering services to immigrants, and 3) the need to improve the services' care for such target groups [Table 2]. The second part of the interview consisted of vignettes about IM. The case vignettes allowed the health professionals to describe their practical experiences with IM [41].

Table 2 Clinical vignettes submitted to health professionals

	Primary care Services	A&E department	Mental health Services
Clinical Situation	A male, 28 years old, coming from [*insert a country*], presents with pain when urinating and has a slight fever. He does not speak any language that the doctor understands. He has no insurance, no identification, and no residency permit.	The patient arrived in the host country as an irregular immigrant about 1 year ago. He is 25 years of age and of [*insert a country*] origin. He does not speak any language that the A&E staff understands and presents with an intense lower abdominal pain.	The patient arrived in the host country as an irregular immigrant about 1 year ago. She is 25 years of age and of [*insert a country*] origin. She does not speak the language of the host country, has no social contacts and appears severely depressed.
Question 1	From your perspective, what are the differences, if any, in the treatment for this patient compared to a patient with a similar condition from the indigenous population?		
Question 2	From the perspective of a patient, what do you think are the specific problems this patient would encounter that are different from those of a patient with a similar condition from the indigenous population, and how would they be overcome?		
Question 3	What are the specific further pathways and treatment options, if any, for this patient that are different from those of a patient with a similar condition from the indigenous population?		
Question 4a†	Would you inform the police and/or other authorities?		
Question 4b‡	Is this scenario at all possible, or are there barriers preventing irregular immigrants from using your service?		

† For respondents in primary care services and A&E departments only.

‡ For respondents in mental health services only. Due to the gatekeeping systems that exist in most European countries for mental health services, even for legal patients, the likelihood of an IM presenting in mental health services was

investigated [25]. Mental health services were selected as examples of secondary services.

The case vignettes focused on the management of clinical situations involving IM patients as compared to situations involving patients in a regular situation in the given host country. Specific questions about informing the authorities or the police were submitted to A&E departments and primary care services. One specific question was asked of mental health services only: whether or not IM would ever receive treatment from their service. Interviews (238/240) were taped. Two participants out of the whole sample refused to have their interviews recorded; their responses were documented in writing. All interviews (240) were transcribed verbatim.

Analysis

A thematic content analysis was conducted based on interview responses [42]. Each centre first generated a list of emerging codes in a stepwise analysis, based on a line-by-line analysis of the first three interviews carried out in the country in which it was located [43]. National research centres created an inductive code list based on the material.

The UK coordinators received a database containing the codes and the associated text translated into English for each country. The codebook was developed based on the data provided.

Consistency of coding was assessed across all participating centres. Firstly, researchers at the coordinating centre screened the databases containing the coding results of the first interviews in each centre and discussed any discrepancies with the relevant centre. Secondly, researchers from all centres provided further verification and clarification of the meanings of the codes during a one-day workshop. Thirdly, each partner coded two interviews conducted in English and the UK coordinating centre assessed the coded data for discrepancies. The themes were organised according to the current scientific literature exploring access to and delivery of care for migrants.

The smallest textual unit of analysis was a single sentence. Centres reviewed and agreed upon a codebook based on the data. Interviews were coded with the codebook. Codes were categorised based on their English translations. To obtain meaningful themes, the emerging categories and codes were organised and grouped [41, 44, 45]. Researchers from all centres verified the emerging categories and themes to ensure consistency across the data set. Descriptive counts of themes, categories, and codes summarised the data set.

Further details of the design and methods of analysis are reported elsewhere [18-19].

List of abbreviations used (by order of appearance in the manuscript)

IM: Irregular Migrants
EU: European Union
A&E department: Accident and Emergency department
UK: United Kingdom
NGOs: Non-Governmental Organisations

Competing interests

The authors declare that they have no competing interests.

Authors' contributions

MD supported study coordination for the Belgian part of the study, analysed the data, and drafted the manuscript. VL was in charge of the Belgian part of the study, participated in data analysis, and helped draft the manuscript. SP designed the study protocol, was in charge of the overall management of the study, and helped draft the manuscript. SS supported study co-ordination. All authors collected national data and are guarantors of the data for the countries they dealt with; they commented on successive drafts of the manuscript and approved its final version.

Acknowledgements

This project was funded by the General Directorate of Health and Consumer Protection of the European Union (DG-SANCO). Project number: EUGATE A/800175. More information is available on the website: http://www.eugate.org.uk. MD has a grant as a research fellow of the *Fonds de la Recherche Scientifique* (F.R.S.-FNRS) of Belgium. All authors would like to express their gratitude to Professor Jutta Lindert for her contribution to the study application and to the entire EUGATE research team for their contributions to data collection, management, and analysis. We would also like to thank all the health professionals for sharing their experiences. We would like to thank M. Bogic and N. Bjerre from the EUGATE UK team and C. Geerts from the EUGATE Belgian team. We thank the reviewers for their valuable comments.

References

1 PICUM: *Access to Health Care for Undocumented Migrants in Europe*. Brussels: PICUM; 2007.

2 CLANDESTINO group: *Undocumented Migration: Counting the Uncountable. Data and Trends Across Europe. Final Report*. Brussels: European Commission; 2009.

3 Castañeda H**: Illegality as risk factor: A survey of unauthorized migrant patients in a Berlin clinic**. *Soc Sci Med* 2009, **68**(8): 1552-1560.

4 Dorn T, Ceelen M, Tang MJ, Browne JL, de Keijzer KJC, Buster MCA, Das K: **Health care seeking among detained undocumented migrants: a cross-sectional study**. *BMC Public Health* 2011, **11**: 190.

5 Florence S, Lebas J, Parizot I, Sissoko D, Querre M, Paquet C, Lesieur S, Chauvin P: [**Migration, health and access to care in Mayotte Island in 2007: Lessons learned from a representative survey**]. *Rev Epidémiol Santé Publique* 2010, **58**(4): 237-244.

6 Wolff H, Epiney M, Lourenco A, Costanza MC, Delieutraz-Marchand J, Andreoli N, Dubuisson J-B, Gaspoz J-M, Irion O: **Undocumented migrants lack access to pregnancy care and prevention**. *BMC Public Health* 2008, **8**: 93.

7 Cavazos-Rehg PA, Zayas LH, Spitznagel EL: **Legal status, emotional well-being and subjective health status of Latino immigrants**. *JAMA* 2007, **99**(10): 1126-31.

8 Chauvin P, Parizot I, Drouot N, Simonnot N, Tomasino A: *European Survey on undocumented migrants' access to health care*. Paris: European Observatory of Doctors of the World; 2007.

9 Chauvin P, Parizot I, Simonnot N: *Access to health care for undocumented migrants in 11 European countries*. Paris: European Observatory of Doctors of the World; 2009.

10 Sebo P, Jackson Y, Haller Dagmar DM, Gaspoz J-M, Wolff H: **Sexual and Reproductive Health Behaviors of Undocumented Migrants in Geneva: A Cross Sectional Study**. *J Immigr Minor Health* 2011, **13**(3): 510-517.

11 Pikhart H, Drbohlav D, Dzurova D: **The self-reported health of legal and illegal/irregular immigrants in the Czech Republic**. *Int J Public Health* 2010, **55**(5): 401-411.

12 Romero-Ortuño R: **Access to health care for illegal immigrants in the EU: should we be concerned?** *Eur J Health Law* 2004, **11**: 245-272.

13 HUMA network: *Law and practice: Access to health care for undocumented migrants and asylum seekers in 10 EU countries*. Paris: HUMA network; 2009.

14 Torres-Cantero A.M, Miguel AG, Gallardo C, Ippolito S: **Health care provision for illegal migrants: may health policy make a difference?** *Eur J Public Health* 2007, **17** (5): 483-485.

15 Ruiz-Casares M, Rousseau C, Derluyn I, Watters C, Crepeau F: **Right and access to healthcare for undocumented children: Addressing the gap between international conventions and disparate implementations in North America and Europe.** *Soc Sci Med* 2010, **70**(2): 329-336.

16 Björgren Cuadra C, Cattacin S: *NOWHERELAND Policies on Health Care for Undocumented Migrants in the EU27: Towards a Comparative Framework*. Malmö: NOWHERELAND; 2010.

17 Björgren Cuadra C: **Right of access to health care for undocumented migrants in EU: a comparative study of national policies.** *Eur J Public Health* 2011 first published online June 9, 2011 doi:10.1093/eurpub/ckr049.

18 Priebe S, Bogic M, Adány R, Bjerre NV, Dauvrin M, Devillé W, Dias S, Gaddini A, Greacen T, Kluge U, Ioannidis E, Jensen NK, Puigpinós I Riera R, Soares JJF, Stankaunas M, Straßmayr, Wahlbeck K, Welbel M, McCabe R: **Good practice in emergency care: views from practitioners**. In *Migration and Health in the European Union*. First Edition. Edited by Rechel B, Mladovsky P, Devillé W, Rijks B, Petrova-Benedict R, McKee M. MacGraw Hill: Open University Press; 2011:213-226.

19 Priebe S, Sandhu S, Dias S, Gaddini A, Greacen T, Ioannidis E, Kluge U, Krasnik A, Lamkaddem M, Lorant V, Puigpinós i Riera R, Sárváry A, Soares JFF, Stankunas M, Straßmayr C, Wahlbeck K, Welbel M, Bogic M: **Good practice in health care**

for migrants: views and experiences of care professionals in 16 European countries. *BMC Public Health* 2011, **11**:187.

20 Devillé W, Greacen T, Bogic M, Dauvrin M, Dias S, Gaddini A, Jensen NK, Karamanidou C, Kluge U, Mertaniemi R, Puigpinós i Riera R, Sárváry A, Soares JFF, Stankunas M, Straßmayr C, Welbel M, Priebe S: **Health care for immigrants in Europe: is there still consensus among country experts about principles of good practice? A Delphi study**. *BMC Public Health* 2011, **11**:699.

21 Gold M: **Beyond Coverage and Supply: Measuring Access to Healthcare in Today's Market.** *Health Serv Res* 2008, **33**(3): 625-652

22 Bischoff A, Bovier PA, Rrustemi I, Gariazzo F, Eytan A, Loutan L: **Language barriers between nurses and asylum seekers: their impact on symptom reporting and referral**. *Soc Sci Med* 2003, **57**(3): 503-512.

23 Scheppers E, van Dongen E, Geertzen J, Dekker J: **Potential barriers to the use of health services among ethnic minorities: a review**. *Fam Pract* 2006, **23**(3): 325-348.

24 Schoevers MA, Loeffen MJ, Van Den Muijsenbergh ME, Lagro-Janssen ALM: **Health care utilisation and problems in accessing health care of female undocumented immigrants in the Netherlands**. *Int J Public Health* 2010, **55**(5): 421-428.

25 van Doorslaer E, Wagstaff A, van der Burg H, Christiansen T, De Graeve D, Duchesne I, Gerdtham UG, Gerfin M, Geurts J, Gross L: **Equity in the delivery of health care in Europe and the US**. *J Health Econ* 2000, **19**:553-83.

26 Grimm JW, Wells JL: **Illegal Immigrants in the Emergency Department: An Ethical Dilemma for Nurses?** *J Emerg Nurs* 2009, **35**(2): 127-128.

27 Rousseau C, ter Kuile S, Munoz M, Nadeau L, Ouimet MJ, Kirmayer L, Crépeau F: **Health care access for refugees and immigrants with precarious status - Public health and human right challenges**. *Can J Public Health* 2008, **99**(4): 290-292.

28 Paez KA, Allen JK, Carson KA, Cooper LA: **Provider and clinic cultural competence in a primary care setting**. *Soc Sci Med* 2008, **66**(5): 1204-1216.

29 Staton LJ, Desbiens NA: **Physicians' knowledge of laws affecting medical decision making for seriously ill patients**. *J Gen Intern Med* 2007, **22**(Suppl 1): 8-8.

30 Walerius T, Hill PD, Anderson MA: **Nurses' Knowledge of Advance Directives, Patient Self-determination Act, and Illinois Advance Directive Law**. *Clin Nurse Specialist* 2009, **23**(6): 316-320.

31 Hajjaj FM, Salek MS, Basra MKA, Finlay AY: **Non-clinical influences on clinical decision-making: a major challenge to evidence-based practice**. *J R Soc Med* 2010, **103**(5): 178-187.

32 Strech D, Persad G, Marckmann G, Danis M: **Are physicians willing to ration health care? Conflicting findings in a systematic review of survey research**. *Health Policy* 2009, **90**(2-3): 113-124.

33 Washington D, Bowles J, Saha S, Horowitz CR, Moody-Ayers S, Brown AF, Stone VE, Cooper LA: **Transforming Clinical Practice To Eliminate Racial-Ethnic Disparities in Healthcare**. *J Gen Intern Med* 2008, **23**(5): 685-691.

34 Watt S, Sword W, Krueger P: **Implementation of a health care policy: An analysis of barriers and facilitators to practice change**. *BMC Health Serv Res* 2005, **5**: 53.

35 Weiner SJ, Laporte M, Abrams RI, Moswin A, Warnecke R: **Rationing access to care to the medically uninsured - The role of bureaucratic front-line discretion at large healthcare institutions**. *Med Care* 2004, **42**(4): 306-312.

36 Hurst SA, Slowther AM, Forde R, Pegoraro R , Reiter-Theil S, Perrier A, Garrett-Mayer E, Danis M: **Prevalence and determinants of physician bedside rationing: Data from Europe**. *J Gen Inter Med* 2006, **21**(11): 1138-1143.

37 Harmsen JA, Bernsen RM, Bruijnzeels MA, Meeuwesen L: **Patients' evaluation of quality of care in general practice: What are the cultural and linguistic barriers?** *Patient Educ Couns* 2008, **72**(1): 155-162.

38 Nierkens V, Krumeich A, de Ridder R, van Dongen M**: The future of intercultural mediation in Belgium.** *Patient Educ Couns* 2002, **46**(4): 253-259.

39 Kogan SM, Wejnert C, Chen YF, Brody GH, Slater LM: **Respondent-Driven Sampling With Hard-to-Reach Emerging Adults: An Introduction and Case Study With Rural African Americans**. *J Adolesc Res* 2011, **26**(1): 30-60.

40 Jensen NK, Norredam M, Draebel T, Bogic M, Priebe S, Krasnik A: **Providing Medical Care for Undocumented Migrants in Denmark: What Are the Challenges for Health Professionals?** *BMC Health Serv Res* 2011, **11**:154.

41 Green J, Thorogood N. *Qualitative Methods for Health Research*. First edition. London: Sage; 2004.

42 Hsieh HF, Shannon SE: **Three approaches to qualitative content analysis**. *Qual Health Res* 2005, **15** (9): 1277-1288.

43 Miles MB, Huberman AM: *Qualitative data analysis. An Expanded Sourcebook*. Thousand Oaks, CA: Sage; 1994.

44 Patton MQ: *Qualitative research and evaluation methods.* Thousand Oaks, CA: Sage; 2002.

45 Silverman D: *Interpreting qualitative data: Methods for analyzing talk, text, and interaction.* London: Sage; 2001.

CHAPTER 8: Best practices and political recommendations to improve equity in health care for migrants and ethnic minorities. Legal entitlement to health care for migrants in Belgium

This chapter reports the legal entitlement to Belgian health services for three groups of migrants: migrants with a legal permit of residence, including refugees, the asylum seekers and the irregular migrants. Due to the particularity of the procedure of Urgent Medical Aid, the focus of this chapter will be on the irregular migrants. The strengths and the weaknesses of such procedure are reported in a legal perspective.

This chapter has been published as:

- Dauvrin M. L'accès aux soins pour les migrants en Belgique. Revue de Droit Sanitaire et Social, Hors-Série 2012 : 75-85.

L’accès aux soins pour les migrants en Belgique

Dans cet article, le cadre légal et les modalités pratiques d’accès aux soins vont être présentés pour les trois catégories les plus représentatives des migrants en Belgique : les migrants en situation légale, y compris les réfugiés, les demandeurs d’asile et les migrants en situation irrégulière. Une attention plus particulière sera accordée aux migrants en situation irrégulière, étant donné l’originalité de la procédure d’aide médicale urgente.

Aperçu du paysage migratoire belge

Avant d’aller plus loin, les paragraphes suivants vont brièvement décrire la situation des trois principaux groupes de migrants en Belgique.

Immigration légale

Les motifs d’immigration légale sont variables mais le travail et les études représentent les deux raisons principales d’immigration en Belgique. De plus, la présence des institutions européennes stimule l’immigration intracommunautaire : 68% des migrants résidant en Belgique sont originaires d’un pays de l’Union Européenne[17]. La population « européenne » est concentrée dans les grandes villes comme Bruxelles mais également en zone frontalière où de nombreux Français et Néerlandais se sont installés.

D’autre part, dans les migrants en situation légale, se trouvent également les citoyens Belges issus de l’immigration. Arrivées pour la plupart dans les années 1960 et 1970, suite à des conventions inter-états, ces personnes sont principalement originaires d’Italie, du Maroc et de Turquie. La présence belge en République Démocratique du Congo, au Rwanda et au Burundi a également influencé, dans une certaine mesure, l’installation permanente de ressortissants

---

[17] Service Public Fédéral Economie P.M.E. Classes Moyennes et Energie. (2011) Population par nationalité, sexe, groupe et classe d'âges au 1er janvier 2010. Brussels : Service Public Fédéral Economie.

issus de ces pays, principalement dans les grandes agglomérations urbaines[18.] La plupart de ces personnes ont acquis la nationalité belge, ou l'ont obtenue de par leur naissance en Belgique, et n'apparaissent donc pas dans les statistiques de population étrangère résidente. Signalons également qu'en Belgique, il n'existe actuellement pas de recensement ethnique, même si la question a refait surface récemment[19].

Demandeurs d'asile et réfugiés

Parallèlement, malgré une baisse de près de 30% entre les années 2005 et 2006, le nombre de demandes d'asile est à nouveau en augmentation en Belgique tout comme dans le reste de l'Europe[20]. En 2011, 25 479 demandes d'asile ont été introduites en Belgique[21.] Pour l'année 2011, les demandeurs d'asile viennent essentiellement d'Afghanistan, de Guinée et d'Irak. Cette même année 2011 a également connu une augmentation très forte du nombre de demandes d'asile venant de mineurs non accompagnés (1649 demandes), soit une augmentation de 84,04% par rapport à l'année 2010 ! Les mineurs non accompagnés demandeurs d'asile viennent essentiellement d'Afghanistan, Guinée et de République Démocratique du Congo[22].

Au niveau légal, les dispositions relatives au statut de réfugié et au statut de protection subsidiaire sont explicitées dans la section première du chapitre II de la loi du 15 décembre 1980 sur l'accès au territoire, le séjour, l'établissement et l'éloignement des étrangers prévoit[23]. Une autre disposition de la même loi,

---

[18] N. Perrin, L'évolution du nombre d'étrangers en Belgique, 2006, Louvain-la-Neuve : UCL - Groupe de démographie appliquée.

[19] Une des pistes serait que la prochaine enquête nationale de santé prenne en compte des variables d'ethnicité afin de documenter les inégalités de santé et les inégalités dans les soins de santé envers les minorités ethniques et des Belges issus de l'immigration.

[20] Fédasil Agence Fédérale pour l'Accueil des Demandeurs d'Asile (2010). Rapport annuel 2009. Bruxelles : Fédasil.

[21] Commissariat Général aux Réfugiés et aux Apatrides (2012). Statistiques d'Asiles 2011. Bruxelles : Commissariat Général pour les Réfugiés et les Apatrides.

[22] Concernant la population des mineurs non accompagnés, seulement une partie d'entre eux demande l'asile en Belgique. Un nombre important de mineurs bénéficie d'autres statuts de protection, notamment le statut de protection spéciale pour mineurs non accompagnés : se rapporter aux publications de Derluyn et Broekaert 2007, 2008.

[23] Articles 48/2, 48/3 et 48/4 de la loi du 15 décembre 1980 sur l'accès au territoire, le séjour, l'établissement et l'éloignement des étrangers.

l’article 9 *ter*, précise que « l'étranger qui séjourne en Belgique et qui dispose d'un document d'identité et souffre d'une maladie dans un état tel qu'elle entraîne un risque réel pour sa vie ou son intégrité physique ou un risque réel de traitement inhumain ou dégradant lorsqu'il n'existe aucun traitement adéquat dans son pays d'origine ou dans le pays où il séjourne, peut demander l'autorisation de séjourner dans le Royaume au ministre ou à son délégué… »[24] [25].

Pratiquement, toute personne qui demande l’asile a droit à un accueil pendant l’examen de sa demande d’asile, sauf si le demandeur a introduit une demande d’asile alors qu’il est autorisé au séjour ou si la demande d’asile a été faite à la frontière. Dans le cas de la demande d’asile effectuée à la frontière, le demandeur sera hébergé en centre fermé. Les centres fermés ne sont pas considérés comme des lieux d’accueil mais comme des lieux de détention. De même, au cours de la procédure d’asile introduite en d’autres lieux, il est possible que la personne soit détenue en centre fermé.

L’accueil comprend l’hébergement dans une structure d’accueil, les repas, un accompagnement social, médical et psychologique, tout comme l’accès à certaines formations et aux programmes de retour volontaire. Actuellement, la capacité des centres d’accueil est dépassée et bon nombre de demandeurs d’asile sont hébergés dans des hôtels, financés par l’Agence fédérale pour l’accueil des demandeurs d’asile (Fédasil dans la suite du texte).

Migrants en situation irrégulière

Une troisième catégorie de migrants englobe les migrants en situation irrégulière. Ce sont soit des demandeurs d’asile déboutés entrés dans la clandestinité, soit des ressortissants étrangers entrés légalement sur le territoire belge mais dont le titre de séjour a expiré. En raison de leur statut irrégulier, il est difficile de mesurer avec précision le nombre de personnes qui se trouvent actuellement dans cette situation. Par ailleurs, ce groupe est également très hétérogène, que ce soit en

---

[24] Article 9 *ter*, § 1, de la loi du 15 décembre 1980 sur l’accès au territoire, le séjour, l’établissement et l’éloignement des étrangers.

[25] Mis en application *via* l’Arrêté Royal du 8 octobre 1981 concernant l’accès au territoire, le séjour, l’établissement et l’éloignement des étrangers

termes de pays d'origine ou de projet migratoire, ce qui en complexifie la prise en charge

L'accès aux soins pour les migrants en situation légale, y compris les réfugiés

Ce cas de figure est le plus simple, même si des dispositions particulières existent pour les ressortissants européens, les étudiants ou encore les personnes arrivant en Belgique dans le cadre du regroupement familial[26].

La règle générale veut que si la personne séjourne de façon légale en Belgique, elle est tenue de souscrire à l'assurance maladie-invalidité, comme tout citoyen belge. Il n'y aucune différence de traitement. Les prestations préférentielles seront accordées en vertu des règles de l'assurance maladie invalidité. Les réfugiés reconnus doivent également s'affilier à une mutuelle et reçoivent la même protection sociale que les citoyens belges.

Concernant les populations migrantes et les minorités ethniques, l'impact du racisme et de la discrimination dans les soins de santé ne doit pas être sous-estimé. Le groupe de travail ETHEALTH a récemment remis un rapport intitulé « Vers des soins de santé interculturels : Recommandations du groupe ETHEALTH en faveur de la réduction des inégalités ethniques de santé parmi les migrants et les minorités ethniques »[27]. Réalisé à la demande du Service Public Fédéral Santé publique, Sécurité de la Chaine alimentaire et Environnement, ce rapport espère attirer l'attention des responsables politiques et hospitaliers sur l'importance de délivrer des soins équitables et de qualité pour tous.

---

[26] L'ASBL MedImmigrant propose des tableaux récapitulatifs des différentes situations sur son site Internet : http://www.medimmigrant.be/index.asp?idbericht=2etidmenu=2etlang=fr

[27] V. Lorant, I. Derluyn, M. Dauvrin, I. Coune, H. Verrept, Vers des soins de santé interculturels : Recommandations du groupe ETHEALTH en faveur de la réduction des inégalités ethniques de santé parmi les migrants et les minorités ethniques, 2011, Bruxelles : Service Public Fédéral Santé Publique, Environnement et Sécurité de la Chaine Alimentaire.

L’accès aux soins pour les demandeurs d’asile

Avant 2007, les demandeurs d’asile bénéficiaient d’une aide matérielle sous forme financière et étaient tenus de s’affilier à une mutuelle. Cependant, la réforme de la loi de 2007 sur l’accueil des demandeurs d’asile a conduit à une réorganisation de l’assistance apportée aux demandeurs d’asile[28]. Les demandeurs ne sont pas obligés de résider dans une structure d’accueil agréée par l’Etat mais dans ce cas, ils n’auront pas droit à l’aide sociale, sauf pour les soins médicaux. Que le demandeur accepte ou non l’hébergement dans une structure d’accueil, ses soins médicaux seront toujours pris en charge par l’Etat belge, tant que dure sa procédure d’asile.

Lorsque le demandeur ne réside pas dans un centre de l’Etat, il doit se présenter chez le médecin ou l’hôpital muni d’un formulaire officiel attestant de son statut de demandeur d’asile. Le prestataire de soins prend contact avec Fédasil[29] pour obtenir l’accord quant au remboursement des soins. Une liste de soins basée sur la nomenclature de l’Institut national d’assurance maladie invalidité (INAMI) comprend l’ensemble des prestations prises en charge par Fédasil. Cette liste comprend également des soins nécessaires hors listes, comme par exemple les appareils pour les aérosols.

Pour les personnes placées en centre de détention, les soins sont fournis au sein de la structure par des prestataires de soins qui sont fonctionnaires de l’Etat. De même, la majorité des centres ouverts ont un service médical qui permet d’assurer les soins de première ligne, y compris la délivrance de médicaments. Si le demandeur nécessite des soins spécialisés, un transfert sera organisé vers un prestataire de soins ou une institution de soins par le centre ouvert. C’est, par exemple, le cas pour les accouchements.

Par ailleurs, toute personne déposant une demande d’asile est systématiquement dépistée pour la tuberculose. En fonction du degré de contagion de la souche

---

[28] Loi du 12 janvier 2007 sur l’accueil des demandeurs d’asile et de certaines autres catégories d’étrangers, Service Publique Programmation Intégration sociale, lutte contre la pauvreté et économie sociale.

[29] Agence fédérale pour l’accueil des demandeurs d’asile, organisme d’intérêt public placé sous l’autorité du secrétariat à l’Asile et à la Migration http://www.fedasil.be

tuberculeuse, le demandeur sera soit soigné dans son centre, soit placé en isolement dans un hôpital. De plus, des dispositions particulières sont prévues pour les victimes de la traite des êtres humains, notamment en matière de soins psychologiques

Accès aux soins pour les personnes en situation irrégulière ou précaire

Les sources du droit

Concernant les personnes considérées comme « illégales » au sens de la loi, c'est-à-dire sans titre de séjour valide ou demande d'asile en cours d'examen, la réglementation en vigueur est l'aide médicale urgente[30].

L'Arrêté Royal du 12 décembre 1996[31] relatif à l'aide médicale urgente octroyée par les centres publics d'aide sociale aux étrangers qui séjournent illégalement dans le Royaume est une application de l'article 57, paragraphe 2, de la loi organique des Centres publics d'aide sociale du 8 juillet 1976. Cet Arrêté Royal a fait l'objet d'une modification concernant la continuité des soins en 2003[32] et de huit circulaires ministérielles.

Les autorités compétentes

Initiée par le Ministère de la Santé Publique et le secrétariat d'Etat à l'Intégration Sociale, l'aide médicale urgente relève actuellement du Service Public Programmation Intégration Sociale, Lutte contre la Pauvreté, Economie Sociale et Politique des Grandes Villes (SPP Intégration Sociale dans la suite du texte).

---

[30] A ne pas confondre avec la loi du 8 juillet 1964 relative à l'aide médicale urgente (Moniteur Belge du 25 juillet 1964). Il faut entendre par aide médicale urgente, la dispensation immédiate de secours appropriés à toutes les personnes dont l'état de santé par suite d'un accident ou d'une maladie soudaine ou de la complication soudaine d'une maladie requiert une intervention urgente après un appel au système d'appel unifié par lequel sont assurés les secours, le transport et l'accueil dans un service hospitalier adéquat (art. 1er).

[31] Publié au Moniteur Belge le 31 décembre 1996.

[32] Arrêté royal du 13 janvier 2003 modifiant l'arrêté royal du 12 décembre 1996 relatif à l'aide médicale urgente octroyée par les centres publics d'aide sociale aux étrangers qui séjournent illégalement dans le Royaume, Service Public Fédéral Sécurité Sociale et Service Public Programmation Intégration Sociale, Lutte contre la Pauvreté et Economie Sociale.

L'intégration sociale, incluant l'aide médicale urgente, est une compétence fédérale. Cependant, étant donné que l'aide médicale urgente est le dernier filet de secours du système de sécurité sociale belge, elle est une composante de l'aide sociale. Dès lors, en vertu de l'organisation fédérale belge, son application et son organisation sont des compétences du niveau communal, c'est-à-dire le niveau le plus local de la gouvernance en Belgique. Ceci implique que, bien qu'il s'agisse de la délivrance de soins médicaux, le Service Public Fédéral Santé publique, Sécurité de la Chaine alimentaire et Environnement[33] n'a aucune compétence pour gérer l'aide médicale urgente pour les personnes en séjour illégal en Belgique. De plus, en vertu de l'autonomie communale, le SPP Intégration Sociale ne peut imposer des normes d'organisation au niveau local de l'aide médicale urgente. La délivrance de l'aide médicale urgente se fait par le biais des Centres publics d'action sociale[34], organismes communaux chargés de l'application de l'aide sociale pour toute la population résidant dans sa zone territoriale.

Concrètement, cela implique qu'il existe autant de façons de délivrer l'aide médicale urgente que de communes en Belgique, soit 589 possibilités différentes. La situation est particulièrement aiguë en région de Bruxelles-Capitale où 19 communes exercent leurs compétences dans un territoire densément peuplé. Il se produit des situations paradoxales où, selon le côté de la rue où réside le demandeur, il peut bénéficier soit d'une couverture de soins pour une durée de trois mois sans restriction de consultations, soit d'une couverture à la prestation. Cette situation entraîne de nombreux déménagements, les demandeurs s'installant dans les communes plus « généreuses ». Des tentatives d'harmonisation ont eu lieu, comme l'établissement d'une liste commune entre les 19 Centres publics d'action sociale bruxellois des médicaments pris en charge par l'aide médicale urgente. Cette liste comprend également des médicaments de catégorie D, des aliments pour bébés, des soins dentaires et du matériel médical comme les bandages ou pansements.

---

[33] Anciennement Ministère de la Santé Publique.

[34] Anciennement Centres publics d'aide sociale. Le personnel des Centres publics d'action sociale est composé de fonctionnaires communaux, tandis que le Conseil de l'aide sociale du Centre public d'action sociale est composé de conseillers élus par le conseil communal. Les membres du Conseil de l'aide sociale représentent donc des tendances politiques.

Les conditions d'octroi et les procédures

L'octroi de l'aide médicale urgente est conditionné par le statut illégal du demandeur et l'état de nécessité dans lequel se trouve le demandeur. Pratiquement, le Centre public d'action sociale de la commune de résidence du demandeur est chargé de mener une enquête sociale destinée à établir l'existence de ces deux conditions. Une fois l'enquête terminée, le Conseil de l'aide sociale[35] a trente jours pour statuer sur l'octroi ou non de l'aide médicale urgente. Une fois l'aide accordée, le demandeur peut bénéficier d'une prise en charge, soit pour une consultation déterminée, soit pour une période déterminée. En cas de refus de prise en charge, le demandeur peut introduire un recours au tribunal du travail dans les trois mois[36].

Il est également possible que le demandeur se rende d'abord chez un prestataire de soins avant d'avoir introduit sa demande. Dans ce cas, le prestataire de soins peut introduire une demande auprès du Centre public d'action sociale de sa commune à lui pour être remboursé des frais médicaux. De même, si la nature du problème médical requiert des soins médicaux immédiats, le Centre public d'action sociale de la résidence du prestataire de soins ou de l'établissement de soins où le demandeur est soigné sera compétent pour l'octroi de la prise en charge.

Le contenu et les lieux de soins

Malgré son appellation, l'aide médicale urgente englobe aussi bien des soins curatifs que préventifs et n'est pas limitée à une dispensation en milieu hospitalier (hôpitaux généraux et psychiatriques). Les prises en charge en milieu ambulatoire, de même que le séjour dans des établissements spécialisés, sont également compris dans l'aide médicale urgente. L'absence relative de listes préétablies

---

[35] Le Centre public d'action sociale est administré par le Conseil de l'aide sociale. Celui-ci est composé de conseillers à l'aide sociale élus par le Conseil communal, juste après les élections communales. Comme les conseillers communaux, ils sont désignés pour toute une législature (6 ans). Leur nombre dépend du nombre d'habitants de la commune. Le conseil de l'aide sociale prend les décisions concernant l'octroi des aides et des revenus d'intégration. Pour ce faire, il prend connaissance des rapports et recommandations des travailleurs sociaux. (Source : portail de la Fédération Wallonie Bruxelles http://www.wallonie.be).

[36] Article 23 de la loi du 11 avril 1995 visant à instaurer « la charte » de l'assuré social, Source : Prévoyance Sociale.

d'actes couverts par l'aide médicale urgente accorde une grande liberté au prestataire de soins dans la prise en charge de la personne en situation illégale. Cependant, l'absence de liste prédéterminée entraîne également de multiples interprétations sur ce qui est urgent ou pas dans le chef du conseil de l'aide sociale du Centre public d'action sociale. La jurisprudence existante en la matière est révélatrice des débats quant à ce qui relève du soin nécessaire et urgent. Dans certains cas, le Centre public d'action sociale détermine les actes couverts, par le biais d'une convention avec les prestataires de soins (V. *infra*).

Par ailleurs, l'obligation de veiller à la continuité des soins en cas de maladies contagieuses, pour protéger le patient et la population, a fait l'objet d'un alinéa supplémentaire dans l'arrêté royal du 12 décembre 1996 : « en cas de maladies contagieuses reconnues comme telles par les autorités compétentes et soumises à des mesures de prophylaxie, l'aide médicale urgente octroyée au patient doit permettre d'assurer la continuité des soins s'ils sont indispensables pour la santé publique en général »[37].

Couverture théorique versus couverture pratique

Bien que, sur le plan théorique, l'aide médicale urgente couvre environ 99% de la population en séjour irrégulier en Belgique, une étude de Médecins du Monde a démontré qu'en réalité seulement 13,9% des demandeurs en bénéficiaient réellement[38]. En effet, le labyrinthe administratif auquel sont soumis tant les demandeurs que les institutions de soins constitue un obstacle majeur à la bonne application de l'Arrêté Royal. Les procédures sont longues et souvent sujettes à contestation tant de la part des Centres Publics d'Action Sociale, que des prestataires de soins ou des demandeurs[39].

---

[37] Arrêté royal du 13 janvier 2003 modifiant l'arrêté royal du 12 décembre 1996 relatif à l'aide médicale urgente octroyée par les centres publics d'aide sociale aux étrangers qui séjournent illégalement dans le Royaume, Service Public Fédéral Sécurité Sociale et Service Public Programmation Intégration Sociale, Lutte contre la Pauvreté et Economie Sociale.

[38] P. Chauvin, I. Parizot, et N. Simonnot, L'accès aux soins pour les personnes sans autorisation de séjour dans 11 pays d'Europe, 2009, Paris, Médecins du Monde.

[39] Se rapporter à la jurisprudence en la matière.

Cette lourdeur administrative conduit certains médecins à offrir les consultations aux patients en séjour irrégulier. De même, certains médecins généralistes vont déployer un arsenal thérapeutique très étendu au sein de leur cabinet tant l’incertitude quant à une prise en charge en milieu hospitalier est grande. Parallèlement, cette disparité entre accès théorique et accès pratique oriente de nombreux demandeurs vers le monde associatif et notamment Médecins du Monde. Depuis quelques années, Médecins du Monde Belgique observe une chronicisation de sa patientèle, laissant à penser qu’un système de santé parallèle s’est développé malgré l’existence d’une législation étendue.

En termes de couverture financière, certains hôpitaux se voient refuser le remboursement de soins déjà délivrés sous motif que le demandeur n’avait pas introduit au préalable sa demande d’aide médicale urgente au Centre public d’action sociale. De plus, le remboursement des prestations n’est pas immédiat, ce qui n’est pas sans peser sur la situation financière des prestataires indépendants. Le remboursement des soins suit la nomenclature et donc ne tient pas compte des suppléments d’honoraires en vigueur dans les institutions privées. Dès lors, les hôpitaux privés tendent à transférer les personnes en séjour irrégulier vers des structures publiques, ce qui renforce l’effet ghetto autour de ces institutions. Ce type de transfert a même connu des issues tragiques comme dans le cas d’un homme en séjour illégal victime d’un accident vasculaire cérébral, balloté entre deux hôpitaux et pris en charge… 48h après la survenue du problème. Il en est décédé faute d’une prise en charge immédiate.

L’aide médicale urgente et les droits du patient

La loi du 22 août 2002 relative aux droits du patient stipule, dans son article 6, que « le patient a droit au libre choix du praticien professionnel et il a le droit de modifier son choix, sauf limites imposées dans ces deux cas en vertu de la loi ».

Cependant, les Centres publics d’action sociale ont la possibilité d’entretenir des collaborations particulières avec certains prestataires de soins ou institutions. Il est dès lors courant que le Centre public d’action sociale soumette une liste de prestataires parmi lesquels le patient doit faire son choix, dans le meilleur des cas.

La même situation peut se produire lorsqu'il s'agit de soins en milieu hospitalier, le Centre public d'action sociale ayant ses hôpitaux et établissements de soins privilégiés. Certains Centres publics d'action sociale vont cependant accepter que le patient conserve son prestataire habituel, à condition que ce prestataire respecte les règles que le Centre public d'action sociale applique aux autres prestataires de son réseau[40].

Par ailleurs, les prestataires de soins et les institutions de soins tout comme les Centres publics d'action sociale n'ont aucune obligation de déclaration de la présence d'une personne en situation irrégulière à la Police fédérale. Tant les fonctionnaires du Centre public d'action sociale que les prestataires de soins sont soumis au secret professionnel. Les informations échangées entre le Centre public d'action sociale et les prestataires doivent respecter les règles en matière de secret professionnel partagé.

La carte médicale et les conventions de soins

La carte médicale est un exemple de bonne pratique dans le cadre de l'aide médicale urgente[41]. Les cartes médicales sont souvent délivrées à l'occasion d'un traitement nécessaire comme, par exemple, dans le cas d'une grossesse. Elles peuvent également être délivrées en prévision de soins à venir, c'est-à-dire que le demandeur ne nécessite pas de soins au moment où il introduit sa demande. *Via* la carte médicale, le Centre public d'action sociale s'engage vis-à-vis du prestataire de soins à payer certaines prestations pour une période déterminée. Cette carte médicale donne la certitude au prestataire de soins que les soins prodigués seront payés, à condition que le prestataire respecte les clauses liées à la carte médicale. Elles sont renouvelées périodiquement, ce qui permet au Centre public d'action sociale de vérifier s'il est toujours compétent[42]. La carte médicale, utilisée à bon

---

[40] Le libre choix du prestataire a fait l'objet de divers textes de jurisprudence. Le portail de MedImmigrant en a rassemblé une partie : http://www.medimmigrant.be. Onglet « Accès aux soins », puis onglet « libre choix du prestataire de soins ».

[41] Elle peut également être délivrée à des citoyens Belges qui ne peuvent s'acquitter de leurs frais de santé. Il n'est pas nécessaire de spécifier pourquoi cette carte médicale est délivrée. Certaines communes utilisent également la carte médicale avec les personnes sans-domicile fixe.

[42] Si le patient a déménagé dans une autre commune, c'est le Centre public d'action sociale de cette commune-là qui devient compétent dans l'octroi de l'aide médicale urgente.

escient, permet de réduire les formalités administratives pour toutes les parties concernées et d'assurer une plus grande stabilité de la relation entre le patient, son prestataire et le Centre public d'action sociale[43].

Complémentairement, les conventions de soins sont des contrats « d'adhésion »[44] entre les prestataires/institutions de soins et les Centres publics d'action sociale. En mettant une série de dispositions importantes par écrit, le Centre public d'action sociale organise sa délivrance de l'aide médicale urgente.

Cette convention peut s'établir avec des prestataires/institutions de soins sur le territoire communal mais également au-delà afin de mener une politique d'accès aux soins large. Le Centre public d'action sociale pouvant décider en toute autonomie quels soins sont couverts par la convention[45], le mettre par écrit permet de clarifier la situation et de prévenir des conflits ultérieurs. La convention peut également comprendre des règles diverses comme les délais à respecter pour avertir le Centre public d'action sociale, les modalités de collaboration entre le Centre public d'action sociale et le service social des institutions concernées par la convention, l'obligation de toujours prescrire des médicaments génériques ou encore la prise en charge de prestations de soins hors de la nomenclature de l'Institut national d'assurance maladie invalidité, dont la totalité des frais sera à charge du Centre public d'action sociale.

Ces conventions sont largement inspirées par la politique communale en matière d'aide sociale.

---

[43] Voir également le rapport de Marie-Thérèse Casman, Rapport d'observation des pratiques des Centre public d'action sociale en matière de Carte Médicale, Université de Liège, 2008.

[44] Les prestataires sont rarement consultés quant au contenu et à la portée des conventions. Une concertation préalable existe dans certaines communes mais elle est laissée à l'appréciation du Centre public d'action sociale.

[45] Les règles de remboursement fixées par l'Etat fédéral sont néanmoins déterminantes dans le choix et le positionnement des Centres publics d'action sociale.

***

Forte de son engagement dans de nombreuses instances internationales, des valeurs prônées dans sa Constitution et de sa volonté de protéger les Droits de l'Homme, la Belgique s'est dotée d'un cadre légal et administratif visant à assurer un accès aux soins à toute personne se trouvant sur son territoire, indépendamment de son statut de séjour.

Cependant, les lourdeurs administratives et le flou entourant l'aide médicale urgente entraînent le prestataire de soins et son patient dans des situations d'incertitude : incertitude quant à l'octroi de la prise en charge, à sa durée ou encore son financement. Face à des situations problématiques, les prestataires de soins développent une série de solutions alternatives comme la distribution d'échantillons de médicaments ou la délivrance de soins gratuits.

Avec pragmatisme et déontologie, certains prestataires de soins vont tenter de compenser les failles du système afin de délivrer des soins à toutes et tous dans les meilleures conditions possibles[46] : « (…) s'il est illégal, (…) je vais lui conseiller d'aller à un Centre public d'action sociale parce qu'il a le droit à des soins de santé (…). Il a le droit de se soigner (…). Donc, il va pouvoir bénéficier des soins même si il n'a pas de papiers. On ne va pas le laisser tomber »[47].

Note inédite suite à la publication de ce manuscrit

Depuis avril 2012, La procédure d'aide médicale urgente a connu des nouvelles modifications, notamment via l'introduction du système MedPrima. MedPrima vise à simplifier la procédure d'aide médicale urgente au niveau administratif en introduisant une carte de type carte SIS pour le suivi des patients. Pour plus d'informations, veuillez consulter le site du Service Public Fédéral Intégration Sociale.

---

[46] Dauvrin M. et alii, Health care for irregular migrants: pragmatism across Europe. A qualitative study, in BMC research notes, p. 99, 2012.

[47] Extrait d'un entretien réalisé avec un médecin généraliste bruxellois, dans le cadre du projet EUGATE. http://www.eugate.org.uk

CHAPTER 9: Best practices and political recommendations to improve equity in health care for migrants and ethnic minorities. Towards intercultural care in Belgium

This chapter describes the process and outcomes of the ETHEALTH project, funded by the Belgian Ministry of Public Health. ETHEALTH aimed at elaborating a collaborative strategy to improve equity in health for migrants and ethnic minorities in Belgium.

- Dauvrin M, Derluyn I, Coune I, Verrept H, Lorant V. Towards fair health policies for migrants and ethnic minorities: the case study of ETHEALTH in Belgium. BMC Public Health 2012, 12(1):726.

This chapter was presented as oral communications at:

- Dauvrin M, Derluyn I, Coune I, Verrept H, Lorant V. *ETHEALTH project. Helping policy-makers for a migrant-friendly health system: the case-study of Belgium*. 4th Conference on Migrant and Ethnic Minority Health in Europe, Università de Bocconi, Milan (Italy), June 2012
- Dauvrin M, Derluyn I, Coune I, Verrept H, Lorant V. *ETHEALTH project: A collaborative project to sustain health policies for migrants and ethnic minorities*. Journée des doctorants - École Doctorale Thématique - Santé Publique, Santé et Société, Bruxelles, Novembre 2011
- Dauvrin M, Derluyn I, Coune I, Verrept H, Lorant V. *Making health policies more migrant-friendly: a case study into the ETHEALTH project : ETHEALH: a collaborative project to sustain health policies for migrants and ethnic minorities*. 4th European Public Health Conference 2011, Copenhagen (Denmark), November 2011. Abstract published in *European Journal of Public Health* 2011, 21(S1): 227

List of the publications related to the ETHEALTH project

- Derluyn I, Lorant V, Dauvrin M, Verrept H, Coune I. Gelijkwaardige gezondheid voor migranten en etnischculturele minderheden. In: Dierckx D, Vranken J, Coene J, Van Haarlem A. (eds), Jaarboek 2011 Armoede en sociale uitsluiting, Acco: Leuven, 2011. 978-90-334-8612-8.
- Derluyn I, Lorant V, Dauvrin M, Coune I, Verrept H. *Naar een interculturele gezondheidszorg: Aanbevelingen van de ETHEALTH-groep voor een gelijkwaardige gezondheid en gezondheidszorg voor migranten en etnische minderheden*, 2011.
- Derluyn I, Lorant V, Dauvrin M, Coune I, Verrept H. *Vers des soins de santé interculturels : Recommandations du groupe ETHEALTH en faveur de la réduction des inégalités de santé parmi les migrants et minorités ethniques*, 2011.

Towards fair health policies for migrants and ethnic minorities: the case-study of ETHEALTH in Belgium

Background

In Europe, progress in the development of health policies that address the needs of migrants and ethnic minorities has been slow. This is partly due to the absence of a strategic commitment by the health authorities. The Ministry of Public Health commissioned the ETHEALTH (EThnicity & HEALTH) group to formulate relevant recommendations to the public authorities with a view to reducing health inequalities among ethnic minorities. This paper describes the political process and the outcomes of the ETHEALTH expert group.

Results

After ten meetings, the ETHEALTH group came up with 46 recommendations, which were presented at a national press conference in December 2011. Target groups concerned by these recommendations covered both irregular migrants and migrants entitled to the national insurance coverage. Recommendations were supported by the need of combining universal approaches to health care with more specific approaches. The scope of the recommendations concerned health care as well as prevention, health promotion and access to health care. When analysing the content of the recommendations, some ETHEALTH recommendations were not fully measurable, and time-related; they were, however, quite specific and realistic within the Belgian context. The weak political commitment of an executive agency was identified as a major obstacle to the implementation of the recommendations.

Conclusions

The ETHEALTH group was an example of scientific advice on a global health issue. It also demonstrated the feasibility of coming up with a comprehensive strategy to decrease ethnic health inequalities, even in a political context where migration issues are sensitive. Two final lessons may be highlighted at the end of the first phase of the ETHEALTH project: firstly, the combination of scientific knowledge and practical expertise makes recommendations SMART; and, secondly, the low level of commitment on the part of policymakers might jeopardise the effective implementation of the recommendations.

Keywords

Ethnic minorities Health policy Migrants Belgium Quality of care Access to health care Health promotion ETHEALTH

Background

Like other European countries, Belgium has to cope with the increasing diversity of its population. Several factors contribute to this diversity, including a long history of labour migration, the country's colonial past, and, more recently, its strategic position in the European Union [1, 2]. Although a certain slowing-down of labour immigration has been observed in recent years, migration flows still persist and asylum applications are still rising.

In Belgium, the health status of migrants and ethnic minority groups (MEM) raises a paradox. On the one hand, some MEM have a lower risk of mortality, lower prevalence of some cancers, and lower alcohol consumption rates compared to Belgians [3]. On the other hand, MEM often experience poorer health status than "native" Belgians: some MEM have more mental health problems, such as psychosis and anxiety, higher rates of chronic diseases, such as type 2 diabetes mellitus, and report poorer subjective health compared to Belgians [4-9]. Moreover, MEM experience linguistic and cultural barriers to access to some health services, such as health promotion facilities, screening services, and specialised care; this can increase their risk of poorer health status because of a lack of (appropriate) care [10, 11].

In the last decade, many national and international agencies have placed ethnic health equality higher on the public health agenda. The 2003 US "Unequal Treatment" report and the 2005 Bennett Report in the UK have led to proactive migrant health policies within the health services [12, 13]. Since 2000, the European Union has published several directives referring to health care for migrants and required from his members an integration of these directives within the national legislative framework [14-20]. In 2006, the Council of Europe deposed a memorandum on health services in a multicultural society [21]. In 2008 the WHO published Resolution WHA 61.17, highlighting the need to promote migrant-sensitive policies within health systems [22]. This was followed by a policy report of the WHO Regional Bureau for Europe, which advised states on how to address ethnic inequalities [23]. This kind of public advocacy has led to some interesting initiatives, such as the creation of the National Resource Centre for Ethnic Minority Health in Scotland, the development of the Migrant-friendly Hospitals Task Force and the Amsterdam Declaration, and the "Migration and Health" project in Switzerland, led by the Federal Office of Public Health [24-26].

Despite such public advocacy, however, many European countries are still hesitating on how to come up with an explicit commitment in relation to this topic [27]. So far, Belgium has addressed ethnic health inequalities only to a limited extent. Although Belgium had integrated all the European directives aimed at improving the health of MEM into its legislation, its commitment to diversity is rather weak [28-30]. Data on ethnic health inequalities are rather sparse and mostly limited to nationality. Public agencies are prohibited from collecting data on ethnicity [31]. Very few public health policies actually recognise the importance of cultural diversity and the needs of MEM [32]. Most public-health plans (such as the National Plan against Cancer) or blueprints have not paid attention to the particular situation of MEM; this has led to under-provision of health services, prevention, and health promotion [10, 11, 33]. Health care organisations have no formal obligation to pay attention to diversity, leading to an implicit denial of health care discrimination. Although laws to struggle against racism and discrimination exist, the Centre for Equal Opportunities and Opposition to Racism has an advisory role only and is not considered as an executive agency [34, 35]. In addition, within the two most important health executive agencies, there is no strong commitment to improve equity and diversity. Finally, state-funded intercultural mediators are limited to hospitals and there are few interpreting services in outpatient settings.

Recent events have increased the pressure on health policymakers to pay more attention to ethnic health equality in Belgium. Critical incidents – such as the failure to provide asylum applicants with adequate health care or Muslim clients refusing emergency care for gender-based reasons, and epidemiological data on the rising incidence of communicable and non-communicable diseases among MEM – have triggered more interest among public-health stakeholders. Recently, the COST HOME network has put the issue higher on the research agenda in Belgium and in Europe [36]. The recent work of Lorant & Bhopal comparing Belgium and Scotland had highlighted some of the weaknesses of the Belgian health system and prepared the ground to develop a national project [28]. Within this context, the "ETHEALTH" – Ethnicity and Health – expert group was set up to formulate recommendations to the Belgian public health authorities on how to reduce ethnic and migrant health inequalities. This paper describes the process and outcome of elaborating this collaborative strategy to improve equity in health. To our knowledge, this is the first report in continental Europe on how to elaborate a policy blueprint to tackle ethnic inequalities in health. Through this paper, we hope to contribute to the growing debate on changing policies on ethnicity and health as highlighted recently by the COST-ADAPT memorandum [37]. Although there is a growing body of evidence that public-health sciences could contribute to the elaboration of policy, there are few previous experiences of scientific studies producing advice in relation to ethnicity and health in continental Europe [38].

Methods

The steering committee

A steering committee was commissioned by one General Director at the Ministry of Public Health. This steering committee was composed of three researchers and two civil servants from the Ministry of Public Health. The steering committee conducted the project, organised the panel meetings, invited the experts, and drafted the report. The steering committee also produced a review of the existing situation in relation to migration and health in Belgium, as well as in other countries, to provide a documentary background for the discussion.

The steering committee invited several experts in the field of health and migration in Belgium to take part in the panel. Experts cited by the five members of the steering committee were contacted and asked to join the core group of ETHEALTH. Four experts refused to participate, either due to lack of time or because they did not consider themselves to be experts. They were replaced by other experts on the list. Twenty-one experts finally constituted the panel. The panel was made up of 8 men and 13 women. Four experts were from migrant backgrounds, 13 experts had French as their preferred national language. Table 1 displays the qualifications and current positions of the ETHEALH experts [table 1].

Table 1 Areas of expertise and current positions of the steering committee and the panel group of the ETHEALTH project

Table 1.a. Areas of expertise and current positions of the members of the ETHEALTH steering committee

	Area of Expertise	Current position
Expert 1	Health inequalities Medical sociology	Institute of Health and Society, Université catholique de Louvain
Expert 2	Unaccompanied minors Emotional well-being	Department of Orthopedagogics, Ghent University
Expert 3	Health inequalities Cultural Competences and community health	Institute of Health and Society, Université catholique de Louvain
Expert 4	Intercultural mediation Women's health	Intercultural Mediation in Hospitals and Policy Support, Ministry of Public Health
Expert 5	Intercultural mediation Policy support	Intercultural Mediation in Hospitals and Policy Support, Ministry of Public Health

Table 1.b. Areas of expertise and current positions of the experts on the ETHEALTH panel group

	Area of Expertise	**Current position**
Expert 6	Intercultural mediation Inpatient mental health services	Centre Hospitalier Jean Titeca, Brussels (psychiatric hospital)
Expert 7	Undocumented migrants and migrants with a precarious legal status	Steunpunt Gezondheid en Vreemdelingenrecht, Kruispunt Migratie-Integratie (non-profit association)
Expert 8	Primary care services Health promotion	Fédération des Maisons Médicales et collectifs de santé francophones (non-profit association)
Expert 9	Health promotion Health prevention	Vlaams Instituut voor Gezondheidspromotie en Ziektepreventie ViGeZ (advisory agency in health promotion and health prevention)
Expert 10	Primary care services General practice	University of Antwerp Wijkgezondheidscentra (non-profit association)
Expert 11	Equal opportunities in all sectors Legislation and policy	Centre for Equal Opportunities and Opposition to Racism (advisory agency)
Expert 12	Women's health and genital mutilation Policy	Ghent University
Expert 13	Social assistance in hospitals	Saint Pierre University Hospital

Table 1b (continued)

	Area of Expertise	Current position
Expert 14	National Health Interview Survey Data collection issues	Belgian Scientific Institute for Public Health ISP/WIV
Expert 15	Intercultural care in primary care services	Foyer asbl/vzw (non-profit association)
Expert 16	Access to care for undocumented migrants, social perspective	Doctors of the World (NGO)
Expert 17	Access to care for undocumented migrants, social and medical perspective	Doctors of the World (NGO)
Expert 18	Social assistance in hospitals	Centre Hospitalier Universitaire de Charleroi (general hospital)
Expert 19	Privacy regulations	Faculty of Law and Theology, Institut pour la recherche interdisciplinaire en sciences juridiques, Université catholique de Louvain
Expert 20	Social assistance in hospitals Financial issues associated with access to health care	Saint Pierre University Hospital
Expert 21	Transcultural psychiatry Outpatient mental health services	D’Ici et d’Ailleurs asbl/vzw (non-profit mental health service)

The panel process and deliverables

Ten panel meetings took place between June 2010 and December 2011. The first meeting agreed on the scope, target group, objectives, and disclosure of the final report. Panel sessions were also devoted to specific topics such as (1) undocumented migrants and asylum seekers; (2) cultural competence, health promotion, and prevention; and (3) monitoring and registration of data on ethnicity in relation to health issues.

At each meeting, participants expressed themselves either in French or Dutch. Simultaneous interpretation was provided by professional interpreters. That service was very important to help avoid misunderstandings, first of all, between French- and Dutch-speaking stakeholders, but also to allow MEM to participate in the process. Based on the transcripts of the meetings, a first version of the report was drafted by the steering committee and sent to the members of the panel group for approval and modification. The ETHEALTH report was structured around the Priority Public Health Conditions Analytical Framework [39]. The final report and recommendations were presented at a national press conference in December 2011. Other dissemination activities were carried out, including communications at national and international conferences. Some dissemination activities were led by the steering group, while others were organised by the members of the ETHEALTH group.

Results

We report the outcomes concerning the general framework of the debates within the ETHEALTH group, before presenting the recommendations. We then assess how SMART the recommendations are. Finally we analyse the political process.

The target group had to be defined, as the ETHEALTH group acknowledged that “migrants and ethnic minorities” encompass highly heterogeneous groups, with various histories of migration and sometimes very different needs. It was quickly admitted that nationality was no longer an appropriate term, as an important part of the migrant population living in Belgium has Belgian nationality. Accordingly, the

ETHEALTH group adopted the wider approach of WHO Europe and consensually decided to use the WHO Europe concept of "Migrants and Ethnic Minorities" (MEM) [23].

Early panel discussions quickly led to a clear distinction between legal MEM entitled to health insurance coverage and irregular MEM, whose health care coverage falls under a different legal regime. The ETHEALTH group felt that these two groups required different policy approaches, although the commissioning agency was initially not that interested in irregular migrants, because that group falls under the responsibility of a different ministry. For public health reasons, however, this group was recognised as highly vulnerable.

A third debate led to an emphasis on the need to combine universal approaches to health care with more specific approaches for MEM. The ETHEALTH group noted that a small number of health care organisations, such as particular public hospitals and primary care surgeries, were increasingly attracting most MEM patients, leading to a *de facto* health care ghetto. In the light of this, the ETHEALTH group urged that all health care systems should be accessible to all population groups, including MEM; this requires that all health care institutions be organised in a "migrant-friendly" way in order to avoid health care ghettos and increase the accessibility and quality of care.

Finally, although its initial commission focused on health care, which is the main competence of the federal Ministry of Public Health, the ETHEALTH group quickly broadened its scope to include access to health care, health promotion, and prevention.

Recommendations

The ETHEALTH group came up with 46 recommendations [40, 41] [Table 2]. The ETHEALTH report was drafted in line with the Priority Public Health Conditions

Analytical Framework [39, 42]. This conceptual framework was consensually chosen as an overall model to illustrate the complex interactions between all the recommendations. It includes five interacting levels: context and socio-economic position, differential exposures (risk factors), differential vulnerability (at-risk groups), differential health outcomes, and differential consequences [Figure 1].

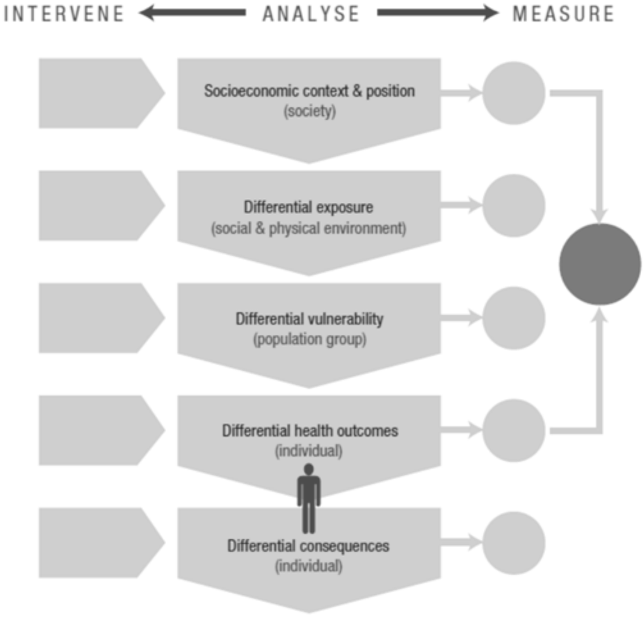


Figure 1 Priority Public Health Conditions Analytical Framework retrieved from Blas & Sivasankara Kurup (eds) 2010, page 7 [42] (figure reproduced with the amiable authorisation of the World Health Organisation)

© World Health Organisation 2010

Table 2 The 46 recommendations of the ETHEALTH group designed to address health inequalities among migrants and ethnic minorities in Belgium

---

Level 1: Context and socio-economic position

(1) Data on MEM

- Identification of migrants and ethnic minorities in systematic health care register
- Improvement of the statistical power of the National Health Interview Survey for MEM
- Encouragement of research into MEM health status and health care

(2) Coordinating efforts to develop a global and coherent strategy between the different levels of governance

- Improvement of coordination between federal, regional, Community, and municipal levels of governance
- Encouraging public health authorities to join international networks active in intercultural health care, such as the Migrant- friendly Hospitals network

(3) Training and licensing culturally competent health professionals

- Making cultural competences training a licensing criterion for health professionals
- Encouragement of the orientation of MEM towards the health professions, to add to the diversity of health care teams

Level 2: Differential Exposures (risk factors)

(1) Reduction of socio-economic inequalities

- Combating labour market discrimination and application of existing legislation in companies
- Taking into account the specific needs of MEM, especially first-generation, in education, but preventing the creation of educational ghettos and discouraging the systematic orientation of MEM to specialised schools (for children with specific needs, e.g. children with disabilities)
- Taking initiatives in several areas to allow the participation of MEM in decisions that concern them

(2) Culturally competent health prevention, health promotion, and health education, including strengthening community health

- Increasing the awareness of health professionals in primary care services of the specific risks experienced by MEM and the higher risk of developing certain diseases, such as tuberculosis, while preventing “ethnification” or “racialisation” of these diseases
- Structural integration of preventive activities into the existing health care services
- Adopting proactive initiatives to provide comprehensible and adapted information on the health care system for MEM, with strengthening the role played by the sickness insurance funds in informing clients
- Considering community health as a main activity of the primary health care services
- Taking into account, as far as possible, the context of the client in the delivery of health care facilities, especially in chronic treatment and in residential treatment, to avoid dropping out

Table 2 (continued)

Level 2: (continued)

- Improvements to the curriculum of community health nurses, in nursing school as well as in the field, and including community health in the agreed standards for primary care services

Level 3: Differential vulnerability (at-risk groups)

(1) Irregular migrants and migrants with a precarious legal status, including asylum-seekers

- Clarifying the application of the legislation on Urgent Medical Aid and ensuring a clear framework of reimbursement for health care
- Entrusting the Public Centres of Social Action with the social inquiry to decrease the burden on social services in hospitals
- Delivering to all irregular migrants a voucher entitling them to request assistance from different social and medical institutions
- Extending the use of the “medical card” to all irregular migrants, entitling them to urgent health care
- Diversification of the health professionals and health services available to treat MEM with a precarious legal status or in irregular situations, so as to prevent the formation of “health ghettos”
- Provision of a temporary residence permit for irregular migrants with contagious diseases such as tuberculosis, in order to create confidence and ensure MEM follow a full course of treatment
- Requiring better support from the Federal Agency for the Reception of Refugees and Asylum Seekers (FEDASIL) for the provision of specific training for these health professionals
- Ensuring decent reception conditions, that respect human dignity, for all asylum-seekers, to avoid situations where their place of residence may increase mental and physical health problems
- Ensuring access to all health care services for all asylum-seekers, whatever their conditions of reception/detention

(2) Migrants and ethnic minorities with mental health problems

- Developing and providing culturally competent preventive actions in mental health care, developed in partnership with the target population
- Developing and providing culturally competent mental health services, especially in urban centres in all the regions of Belgium
- Developing interpreting facilities and intercultural mediation within mental health care services
- Improving access to specific training in mental health for health professionals
- Improving collaborative links and referral between mental health services and associations that assist MEM, whatever their legal status
- Increasing awareness of mental health problems and adequate referral of clients within the primary care services

Table 2 (continued)

Level 3 (continued)

(3) Women

- Improving management of MEM women in maternity units, accident and emergency departments, and gynaecological services, with due consideration for cultural, financial, linguistic, or social obstacles
- Developing diversified responses to the struggle against genital mutilation and sexual violence
- Improving prevention in relation to sexual and reproductive health for MEM women by improved information on their rights (including abortion, contraception, and protection against conjugal violence)
- Promoting access to prenatal care and screening services for breast or cervical cancer

Level 4: Differential health outcomes

(1) Reinforcing the accessibility and quality of health services

- Reinforcing the accessibility and organisation of primary care services, especially where needs for intercultural care are more predominant
- Ensuring free access to health care services and basic drugs for all clients between 0 and 18 years
- Stimulating a stable relationship with the general practitioner and the creation of a global medical file
- Stimulating the creation of frontline primary health care centres, working in interdisciplinary teams with integration of social, community, and mental aspects into health care facilities
- Stimulating the creation of efficient networks involving primary-care services, specialised health care services, support structures in other sectors (labour or housing), and representatives of MEM, in order to ensure the transmission of information and the adequate orientation of clients
- Providing adequate information to MEM about health and preventive/curative health care services
- Increasing the accessibility of, and encouraging collaboration with, interpreters and intercultural mediators in all health services
- Increasing awareness of culturally specific components in health care delivery, with a view to improving the accessibility and quality of health care for MEM (e.g. adaptation of meals to religious precepts or religious facilities inside the institution)
- Stimulating the openness and awareness of health professionals to diagnosis and management of MEM
- Promoting collaborative work with diversified health care teams (gender, age, culture, or educational level)
- Encouraging each health professional and each health service to develop action plans and to mobilise resources to meet the needs of MEM

At the contextual and socio-economic levels, the ETHEALTH group made the case for better data on MEM, improved coordination across the different levels of governance, and making cultural competences a licensing criterion for all health care professionals. For example, Belgium already has a National Health Survey by interview, but there is no recording of the ethnic background of the participants. An additional sample of MEM might provide more reliable estimates of the health of MEM living in Belgium (recommendation 1.2).

In order to decrease differential exposure, the ETHEALTH group recommended improving equal socio-economic opportunities for MEM, fighting against discrimination, and improving preventive health care among MEM. For example, the ETHEALTH group recommended the integration of preventive activities into the primary health care services: these activities must be relevant to the neighbourhood where the health service is located (recommendation 2.5).

In relation to differential vulnerability, the ETHEALTH group identified three more at-risk groups among MEM: irregular migrants and asylum seekers, MEM with mental health problems, and women. These three groups have several risk factors for having a poorer health status than the “native” population and experiencing discrimination due to the multiplication of risks. For example, in order to reduce administrative procedures and facilitate access to health services, the ETHEALTH group supported the generalisation of the “medical card” for irregular migrants. In areas where it already exists, the medical card for irregular migrants gives access to health care services for a particular period, without additional administrative procedures. For MEM with mental health problems, the ETHEALTH group advised an improvement in collaboration, including referrals of patients, between mental health services and supportive associations for MEM, such as community associations (recommendation 3.14). For women, the ETHEALTH group recommended an improvement of the management of MEM women in maternity wards, accident and emergency departments, and gynaecological services. Using interpreters, in order to avoid relying on interpretation by husbands, or cultural mediators, in order to make less likely the refusal of care by women (or their families) because of gender issues, are two concrete initiatives that could reduce the isolation of some MEM women (recommendation 3.16).

In relation to health outcomes, the ETHEALTH group suggested improving the quality and accessibility of health care. Several existing initiatives were described in the report [40, 41]. One interesting recommendation is to improve the development of intercultural mediation, which already exists in hospitals but is lacking in GP surgeries (recommendation 4.7).

Are the ETHEALTH recommendations S.M.A.R.T?

We also assess how SMART these recommendations are, with regard to the following criteria: Specificity, Measurability, Assignability, degree of Realism, and Time-relatedness [43].

Specificity: universal versus specific approaches

Fourteen recommendations could be considered as universal, while 32 are specific recommendations for MEM. Among the specific recommendations, 18 concern three more vulnerable groups: irregular migrants (9 recommendations), women (3 recommendations), and MEM with mental health problems (6 recommendations). Because of specific risk factors, these three groups are considered to be at greater risk of having severe health problems or experiencing exclusion and discrimination. Universal recommendations mainly concern improvements in the accessibility and quality of care for the entire population, and not specifically for MEM. For example, recommendation 4.2 argues for free access to primary health care for all children and young people below the age of 18.

Measurability

A recommendation is measurable when it is possible to quantify it or at least when an indicator of progress is suggested. Actually, none of the recommendations has an indicator of progress or a measurable target. In some cases, however, the recommendation suggests a concrete action, whose measurement does not imply a quantitative measurement: this is the case with recommendation 1.2, which argues for a better sampling of MEM in the National Health Interview Survey. Moreover, recommendations 3.1 to 3.6 are extremely concrete and their adoption is likely to lead to explicit outcomes. For example, recommendation 3.6 suggests granting a temporary residence permit to irregular migrants with a contagious disease such as tuberculosis, in order to create confidence and ensure MEM follow a full course of treatment.

Assignability: who are the recipients?

The ETHEALTH recommendations target several stakeholders. Twenty-three recommendations target political actors (e.g. recommendations 1.4, 3.1, 3.6, and 4.1): these may concern federal public authorities or regional public authorities. A total of 36 recommendations directly concern the health care sector, while 10 are addressed to non-health sectors such as the labour market (see, e.g., recommendations 2.1, 2.2, and 2.3). Finally, 23 recommendations require adaptations by health professionals and the health services (see, e.g., recommendations 3.14, 3.17, 4.3, and 4.5) and no recommendation targeted the clients. Recommendations should also assign recommendation implementation to one or several agencies. However, we notice that none of the recommendations identifies the agencies responsible for implementation.

Degree of realism: what are the changes required?

Broadly, the recommendations require marginal changes. We identify three levels of change in the ETHEALTH recommendations: marginal change, enforcement of existing regulations, and radical change. Firstly, 23 recommendations require only marginal changes; these recommendations do not require legal changes or a new distribution of power. Moreover, the climate is already favourable for the implementation of some of these recommendations. Recommendation 1.6, for example, argues for the inclusion of cultural competency training in the licensing requirements for health professionals. There is currently a reform of the medical curriculum under way in Belgium that creates some momentum for the introduction of new skills into the education of medical doctors. Secondly, 14 recommendations involve the implementation of existing regulations and go on to argue for improvements in the application of these rules, for example, those that are intended to combat discrimination on the labour market (recommendation 2.1). Thirdly, 9 recommendations require more radical changes. For example, recommendation 4.2 argues for free health care for children between 0 and 18 years of age; this would require a modification of health insurance coverage, funding rules, and legislation.

Time-relatedness

None of the recommendations has a deadline for implementation. Uncertainty about when the recommendations would be published may have played a role here.

Assessment of the political process

We now describe the role of the policy process in adopting and – possibly – implementing these recommendations within the “Shiffman and Smith” framework [44]. This framework is helpful when it comes to anticipating difficulties in implementing the recommendations and the resources needed to overcome those difficulties: the cohesion of the political community, the ideas portraying the problem, the political context, and the issue importance.

In relation to the cohesion of the political community, ETHEALTH group succeeded in drawing up inter-sectorial recommendations in a context of considerable political and administrative fragmentation within Belgium, where ethnicity remains a relatively neglected topic. The heterogeneity of the experts contributed to the development of a wide range of recommendations. These recommendations concerned the individual level as well as the institutional and political levels. However, implementation may still be endangered because of the high level of political, legal, and administrative fragmentation applying to health and ethnicity in Belgium. The most obvious fragmentation has to do with devolution and the North-South divide, which was particularly burning at the time. We noticed, for example, that French-speaking representatives were less keen to attend the meetings than Dutch-speaking representatives. Press coverage was also somewhat less favourable in the French-speaking media. Moreover, although the Ministry of Public Health commissioned ETHEALTH, the political context was not favourable to strong commitment: no key figure emerged to make a public commitment to the implementation of the recommendations. The “Centre for Equal Chances and Opposition to Racism” has a mandate that is somewhat closer to the objectives of ETHEALTH, but it has only an advisory role in the Belgian statutory set-up. In fact no guiding institution with a definite executive mandate currently exists in Belgium to cope with these issues. This may also jeopardise the implementation of the recommendations, as issues of ethnicity and health cut across many institutions. The absence of policymakers did, however encourage open and transparent discussion and no partisan affiliation was necessary to participate. Finally, the publication of the ETHEALTH group report led the Ministry of Public Health to call for an inter-ministerial conference, a code name in Belgium for involving federal and regional policymakers. Such conferences lay the foundations for cooperation between federal and regional authorities in order to promote more coherent planning. The ETHEALTH group also acknowledged the need to adapt the recommendations according to institutional responsibilities.

Given the complexity and variety of the topics involved, the ETHEALTH group had to structure the recommendations using a wide spectrum of ideas. The steering group suggested the Priority Public Health Conditions Analytical Framework as a framework for organising the diverse recommendations and preserving the multiple perspectives highlighted by the experts [42]. In that sense, ETHEALTH represents a valuable application of this framework to specific vulnerable groups. The Priority Public Health Conditions Analytical Framework was seen as a relevant model for a structured approach to broad issues such as migration and health.

The political context was not favourable: the low level of political commitment beforehand and the absence of a federal government at the time made the whole project risky. ETHEALTH group could not assume that its recommendations would have an immediate impact and was aware that its recommendations might not be implemented. This particular situation influenced the debates and the outcomes. It was clear at the time that health care would be part of the institutional reshuffle that was expected to lead to a new devolution of responsibilities to regional authorities, which were not sitting around the table. A change in the political orientation of the Ministry of Public Health may also have impeded the diffusion of the results. Finally, the new federal government was formed just two weeks before the press conference. The day the results were presented, the federal government announced the reform of the pension system: as a consequence, the ETHEALTH recommendations were downgraded to a lower priority level both inside the government and in the media.

Finally, the importance attributed to these issues was difficult to estimate, mainly because of data scarcity. Although the preliminary review of the existing data highlighted the importance of these issues, additional data are needed on migrant health in Belgium. Consequently, the first ETHEALTH recommendation concerns the need to record data on ethnic inequalities (see recommendation 1.1).

Discussion

The ETHEALTH recommendations were specific and, broadly, realistic within the Belgian context: they were mostly based on existing Belgian experience. Most of the recommendations require marginal changes, meaning that the potential to develop fair policies for MEM already exists in Belgium. Some recommendations were clearly defined and had a clear audience. This was particularly the case for recommendations 3.1 to 3.6, which had been discussed for a long time before ETHEALTH group was set up by a forceful advocacy group, “Kruispunt Migratie Integratie”, on behalf of irregular migrants. This example confirms the importance of having a lead agency in the field of migration and health in order to sustain the development of migrant-friendly policies.

Uncertainty, however, remains when it comes to translating these recommendations into practice. The ETHEALTH recommendations were not all fully SMART (Specific, Measurable, Assignable, Realistic, and Time-related). They were not formally assigned to specific stakeholders, although they suggested implicit assignment. Lack of assignation of the recommendations may lead to a dilution of responsibilities among stakeholders, with minimal commitment to implementation. Indeed, at the time, the political instability did not favour such assignability: the government had no mandate to make strong commitments and the devolution of some responsibilities to regional authorities was under discussion. Moreover, ETHEALTH group had no explicit mandate to assign the recommendations to public authorities. Similarly, the recommendations did not suggest a time schedule for implementation or indicators to assess the implementation of the recommendations. Developing an implementation plan requires a lead agency and resources to achieve it; in the field of migrant health, it is currently hard to see which agency this might be.

Are the ETHEALTH recommendations consistent with similar achievements in the same field? Recently, the Council of Europe published recommendations on mobility, migration, and access to health care [45]. It turns out that the content and structure of the ETHEALTH recommendations were similar to the recommendations of the Committee of Ministers of the Council of Europe. The recommendations of the Council of Europe did not establish a deadline for achievement, nor were there suggested indicators of progress, but the recommendations were specific and realistic at the European level. In the Scottish “Fair for All” policy and in the

Amsterdam Declaration, recommendations are quite specific but do not address inequalities within the general population. The reduction of health inequalities appears to be more efficient when generic and specific interventions are combined in order to improve the health status of the whole population. Therefore, these interventions require an evaluation of their impact that takes into account the gender, ethnicity, and socio-economic status of different population groups [46]. On the other hand, the Scottish “Fair for All” recommendations were highly measurable, with clear indicators of achievement; they were realistic and had a time schedule for implementation according to the efforts the services had to make. We also noticed that these Scottish recommendations were assigned only to the managers of the health services and health professionals [25]. Similarly, in Switzerland, the federal strategy for 2008-2013 suggested specific, time-related recommendations to improve health equity [47]. The Swiss recommendations were assignable and spread across several levels, like the ETHEALTH recommendations. They were highly realistic and a specific budget was set out. But one of the main differences between the ETHEALTH recommendations and the Swiss and Scottish programmes is the initiator of the policy review in question. In both Scotland and Switzerland the public authorities were the source of the project. Specific legislation against discrimination, such as the UK Race Relations (Amended) Act of 2000, already existed, putting pressure on the authorities to develop diversity plans, including in the health services. The commissioning of ETHEALTH by the Ministry of Public Health was in part triggered by the scientific community.

ETHEALTH looked at a very broad spectrum, including first-generation migrants and ethnic groups, insured and non-insured migrants, and health problems, as well as upstream factors such as socio-economic inequalities or health care coverage. This differs, however, from previous European policies on migrant health. Indeed, as previously shown, most European policies tend to focus on first-generation migrants or on ethnic minorities, whereas ETHEALTH looks at all migrant groups [48, 49].

The study had some limitations. Members of the ETHEALTH group were selected on a voluntary basis. Only 4 experts belong to an ethnic minority group and no representative of users was invited. As the MEM represent a highly heterogeneous population in Belgium, the ETHEALTH group decided against inviting users' representatives, in order to avoid an over- or underestimation of some groups in the discussion. However, the preparatory review of the existing data also looked at studies of the needs and expectations of MEM, with a view to including these in the recommendations. In future phases, ETHEALTH might consider organising discussions with representatives of users and representatives of the MEM communities, such as the Muslim Executive, in order to validate the recommendations and tailor them to the needs of clients.

We also noticed that most of the experts on the panel had a patient-centred perspective on health care. None of the health experts was believed to be active in a “biomedicine” service. Experts with a patient-centred perspective may be more favourably disposed to the adaptation of health care to cultural diversity than experts without a patient-centred perspective [50]. Some skills and expertise were lacking: further projects could also involve discussion and validation of the recommendations with representatives of medical and paramedical disciplines.

Conclusions

The ETHEALTH group was an example of “science-advising” on a global health issue. It also demonstrated the feasibility of coming up with a comprehensive strategy to decrease ethnic health inequalities, even in a political context where migration issues are sensitive. The second positive outcome of ETHEALTH has been to create a stronger community of both researchers and field workers; this may help to bring together practical experience and scientific expertise and improve the cohesion of the community.

Two final lessons may be highlighted at the end of the first phase of the ETHEALTH project. Firstly, the topic for which the recommendations were the most SMART was the one for which both scientific knowledge and practical expertise were available. Secondly, a lack of commitment of policymakers might jeopardize effective implementation.

List of abbreviations used

ETHEALTH (acronym): Ethnicity and Health
SMART (acronym): Specific, Measurable, Assignable, Realist and Tim-related
MEM: Migrants and Ethnic Minorities
US: United States of America
UK: United Kingdom WHO: World Health Organisation
CSDH: Commission on Social Determinants of Health
COST HOME (acronym): European Cooperation in Sciences and Technologies– Health and Social Care for Migrants and Ethnic minorities in Europe network

Competing interests None to declare

Author's contributions MD carried out the analysis of the findings of the ETHEALTH group, contributed to the background review of ETHEALTH project and drafted the manuscript. VL helped to draft the manuscript and contributed to the analysis of the findings. ID and VL chaired the debates and revised the manuscript. IC and HV revised the manuscript. All authors contributed to the redaction of the ETHEALTH report and gave their approval to the final version of the manuscript.

Acknowledgements We would like to thank all the members of ETHEALTH for their valuable contributions to the discussions, the revision of the report, and the dissemination of the findings at local level. We thank Christiaan Decoster, General Director of the Direction of Health Institutions at the Federal Public Service Health, Food Chain Safety and Environment and Ri De Ridder, Director of the National Institute of Sickness-Disability Insurance (INAMI/RIZIV). MD has a grant as research fellow from the Fonds de la Recherche Scientifique-FNRS of Belgium. We warmly thank the COST HOME network for its valuable contribution: the COST HOME network has led to the creation of the steering committee and the development of the ETHEALTH project. We also thank the two reviewers of the manuscript for their valuable and encouraging comments. The full ETHEALTH report is available in French and Dutch on the website of the Federal Public Service Health, Food Chain Safety and Environment (Ministry of Public Health).

http://www.health.belgium.be/eportal/Myhealth/19074155_FR?backNode=83
(French version)

http://www.health.belgium.be/eportal/Myhealth/19074155?backNode=83&fodnlang=nl (Dutch version)

Endnotes

1. Levels displayed within the table 1 are based on the Priority Public Health Conditions Analytical Framework [42] (Supplementary material, file 1).
2. In the recommendation 3.4 (table 1, additional file 1), the « medical card » is not the national health insurance card. It is a special card entitling the bearer to urgent health care.

References

1. Perrin N: *L'évolution du nombre d'étrangers en Belgique.* Louvain-la-Neuve: UCL - Groupe de démographie appliquée; 2006.
2. Schoonvaere Q: *Migrations et populations issues de l'immigration en Belgique. Rapport démographique et statistiques 2009.* Brussels: Centre for Equal Chances and Opposition to Racism; 2010.
3. Deboosere P, Gadeyne S: **Adult Migrant Mortality Advantage in Belgium: Evidence Using Census and Register Data**. *Population* 2005**, 5-6**: 655-698.
4. Levecque K, Lodewyckx I, Vranken J: **Depression and generalised anxiety in the general population in Belgium: a comparison between native and immigrant groups**. *J Affective Disorders* 2007, **97**: 229-239.
5. Levecque K, Lodewyckx I, Bracke P: **Psychological distress, depression and generalised anxiety in Turkish and Moroccan immigrants in Belgium. A general population study**. *Soc Psychiatry Psychiatr Epidemiol* 2008, **44** (3): 431-441.
6. Fossion P, Ledoux Y, Valente F, Servais L, Staner L, Pelc I, Minner P: **Psychiatric disorders and social characteristics among second-generation Moroccan migrants in Belgium: an age-and gender-controlled study conducted in a psychiatric emergency department**. *Eur Psychiatry* 2002, **17**: 443-450.

7. Fossion P, Servais L, Rejas MC, Ledoux Y, Pelc I, Minner P: **Psychosis, migration and social environment: an age- and- gender -controlled study**. *Eur Psychiatry* 2004, **19**: 338-343.
8. Vandenheede H, Deboosere P: **Type 2 diabetes in Belgians of Turkish and Moroccan origin**. *Arch Public Health* 2009, **67**: 62-87.
9. Lorant V, Van Oyen H, Thomas I: **Contextual factors and immigrants' health status: double jeopardy**. *Health Place* 2008, **14**: 678-692.
10. Tafforeau J, Van der Heyden J, Gisle L, Demarest S, Hesse E, Drieskens S: *[Belgian Health Interview Survey 2008]*. Brussels: Scientific Institute of Public Health ISP WIV; 2010.
11. Anson O: **Inequality in the access to preventive health care: the case of immigrants in Belgium.** *Arch Public Health* 2001*,* **59**: 265-279.
12. Committee on Understanding and Eliminating Racial and Ethnic Disparities in Health Care: *Unequal Treatment: Confronting Racial and Ethnic Disparities in Care*. Washington DC: The National Academies Press; 2002.
13. Department of Health: *Delivering race equality in mental health care. An action plan for reform inside and outside services.* London: Department of Health; 2005.
14. European Union: Council of the European Union, *Council Directive 2004/58/EC of 29 April 2004 on the right of citizens of the Union and their family members to move and reside freely within the territory of the Member States,* available at: http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2004:229:0035:0048:en:pdf [accessed 12 March 2012].
15. European Union: Council of the European Union, *Council Directive 2003/86/EC of 22 September 2003 on the right to family reunification,* available at: http://www.unhcr.org/refworld/docid/3f8bb4a10.html [accessed 12 March 2012].
16. European Union: Council of the European Union, *Council Directive 2003/109/EC of 25 November 2003 concerning the status of third-country nationals who are long-term residents,* available at: http://www.unhcr.org/refworld/docid/4156e6bd4.html [accessed 12 March 2012].
17. European Union: Council of the European Union, *Council Directive 2001/55/EC of 20 July 2001 on minimum standards for giving temporary protection in the event of a mass influx of displaced persons and on measures promoting a balance of efforts between Member States in receiving such persons and bearing the consequences thereof,* available at: http://www.unhcr.org/refworld/docid/3ddcee2e4.html [accessed 12 March 2012].

18. European Union: Council of the European Union, *Council Directive 2003/9/EC of 27 January 2003 laying down minimum standards for the reception of asylum seekers,* available at: http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2003:031:0018:0025:EN:PDF [accessed 12 March 2012].
19. European Union: Council of the European Union, *Council Directive 2004/83/EC of 29 April 2004 on minimum standards for the qualification and status of third country nationals or stateless persons as refugees or as persons who otherwise need international protection and the content of the protection granted,* available at: http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=CELEX:32004L0083:EN:HTML [accessed 12 March 2012].
20. European Union: Council of the European Union, *Council Directive 2004/81/EC of 29 April 2004 on the residence permit issued to third-country nationals who are victims of trafficking in human beings or who have been the subjects of an action to facilitate illegal immigration, who cooperate with the competent authorities,* available at: http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=CELEX:32004L0081:EN:HTML [accessed 12 March 2012].
21. Council of Europe: *Recommendation Rec (2006)18 of the Committee of Ministers to member states on health services in a multicultural society. Rec (2006)18. 8-11-2006*. Strasbourg: Council of Europe Council; 2006.
22. World Health Organisation: *Health of Migrants. 2008. WHA 61.17.* Geneva: World Health Organisation; 2008.
23. WHO Regional Office for Europe: *How health systems can address health inequities linked to migration and ethnicity?* Copenhagen: WHO Regional Office for Europe; 2010.
24. Migrant Friendly Hospitals Task-Force: *The Amsterdam Declaration. Towards Migrant-Friendly-Hospitals in an ethno-cultural Europe.* Amsterdam: MFH Taskforce; 2004.
25. NRCEMH: *Checking for Change. Summary of suggestions for "How to" deliver targets and indicators for Race Equality in Health*. Edinburgh: NHS Scotland; 2008.
26. Office Fédéral de la Santé Publique : *Population migrante: prévention et promotion de la santé. Guide pour la planification et la mise en œuvre de projets.* Lausanne : Office Fédéral de la Santé Publique Suisse ; 2011.
27. Bhopal RS: **Research agenda for tackling inequalities related to migration and ethnicity in Europe**. *J Public Health* 2012, pp1-7.
28. Lorant V, Bhopal RS: **Comparing policies to tackle ethnic inequalities in health: Belgium 1 Scotland 4.** *Eur J Public Health* 2010, **21**(2): 235-240.

29. Assises de l'Interculturalité : *Rapport final des Assises de l'Interculturalité: Dialogue Interculturel*. Brussels: PPS Social Integration, anti-Poverty Policy, Social Economy and Federal Urban Policy, 2010.
30. Tackling Health Inequalities in Belgium TAHIB: *L'inégalité sociale en matière de santé reste tenace en Belgique.* Brussels: King Baudouin Foundation, 2010.
31. Jacobs D, Rea A : **Construction et importation des classements ethniques Allochtones et immigrés aux Pays-Bas et en Belgique.** Revue Européenne des Migrations Internationales 2002, **21** (2) : 35-59.
32. Dauvrin M, Lorant V. *EUGATE : Bonnes Pratiques dans les Services de Santé en Europe. Executive summary for Belgium*. Brussels: Université catholique de Louvain, 2011.
33. Federal Public Service Health, Food Chain Safety and Environment: [*National Plan against Cancer*]. Brussels: Federal Public Service Health, Food Chain Safety and Environment; 2008.
34. Moniteur Belge. *Loi du 10 mai 2007 tendant à lutter contre certaines formes de discrimination*. Brussels: Moniteur Belge, 2007.
35. Centre for Equal Chances and Opposition to Racism: *Le centre en 2010: rapport d'activités et de gestion 2010*. Brussels: Centre for Equal Chances and Opposition to Racism; 2011.
36. Ingleby JD (ed): *Memorandum of Understanding for the implementation of a European Concerted Research Action designated as COST Action IS0603: Health and Social Care for Migrants and Ethnic Minorities in Europe – HOME.* Brussels: COST Network, 2006.
37. Ingleby JD (ed): *Memorandum of Understanding. For the implementation of a European Concerted Research Action designated as COST Action IS1103 ADAPTING EUROPEAN HEALTH SYSTEMS TO DIVERSITY (ADAPT)*. Brussels: COST Network, 2011.
38. Sarría-Santamera A, Schoten E, Coenen D, Gunning L, Pauwels A, Allander S V, Skiba M, Ciutan M, Segovia C: *European Science Advising Network. A Framework for Science Advice on Health: Principles and Outcomes*. Brussels: EuSANH, 2011.
39. CSDH: *Closing the gap in a generation: health equity through action on the social determinants of health. Final Report of the Commission on Social Determinants of Health.* Geneva: World Health Organisation, 2008.
40. Lorant V, Derluyn I, Dauvrin M, Coune I, Verrept H : *Vers des soins de santé interculturels : Recommandations du groupe ETHEALTH en faveur de la réduction des inégalités de santé parmi les migrants et les minorités ethniques*. Brussels: Federal Public Service Health, Food Chain Safety and Environment, 2011.

41. Derluyn I, Lorant V, Dauvrin M, Coune I, Verrept H: *Naar een interculturele gezondheidszorg. Aanbevelingen van de ETHEALTH-groep voor een gelijkwaardige gezondheid en gezondheidszorg voor migranten en etnische minderheden*. Brussels: Federal Public Service Health, Food Chain Safety and Environment, 2011.
42. Blas E, Sivasankara Kurup A (ed): *Equity, social determinants and public health programmes.* Geneva: World Health Organisation; 2010.
43. Doran T: **There's a S.M.A.R.T. way to write management's goals and objectives.** *Management Rev* 1981, **70** (11):35-36.
44. Shiffman J, Smith S**: Generation of political priority for global health initiatives: a framework and case study of maternal mortality**. *Health Policy* 2007 **370**: 1370-1379.
45. Council of Europe: *Recommendation CM/Rec (2011)13 of the Committee of Ministers to member states on mobility, migration and access to health care. Rec(2011)13. 16-11-2011.* Brussels: Council of Europe, 2011.
46. Whitehead M: **A typology of actions to tackle social inequalities in health**. *J. Epidemiol. Community Health* 2007, **61**:473-478.
47. Office Fédéral de la santé publique (ed) : *Migration et santé. Résumé de la stratégie fédérale phase II (2008-2013).* Berne : Office Fédéral de la santé publique ; 2008.
48. Mladovsky P: **A framework for analysing migrant health policies in Europe**. *Health Policy* 2009, **93**:55-63.
49. Mladovsky P, Rechel B, Ingleby D, McKee M: **Responding to diversity: An exploratory study of migrant health policies in Europe**. *Health Policy* 2012, **105**: 1-9.
50. Beach MC, Rosner M, Cooper LA, Duggan PS, Shatzer J: **Can Patient-Centered Attitudes Reduce Racial and Ethnic Disparities in Care?** *Acad Med* 2007, **82** (2): 193-198.

DISCUSSION

DISCUSSION

To date, the health of migrants and ethnic minorities has not been properly addressed in Belgium, from the perspective of health service research. To our knowledge, this thesis is one of the first studies to consider such aspects in terms of the reduction of health inequalities among MEM. The empirical part of this thesis used an innovative research method: the social network analysis. Although this method has been widely used in public health and health services research [1-6], this thesis is one of the first studies to apply it to the diffusion of cultural competence.

This final chapter considers the main findings of this thesis, discusses the main limitations of the study, and provides additional recommendations for further research and for future interventions. The chapter is divided into five sections: 1) a summary of the main findings of this thesis, 2) reflections on the main findings, 3) limitations and validity issues related to our results, 4) further perspectives and recommendations, and 5) the general conclusion of this thesis.

1. Summary of the main findings

1.1. Contribution of cultural competence to the reduction of health inequalities and the improvement of quality of care

In Chapter 1, we assessed whether culturally competent interventions in the management of Type 2 diabetes mellitus converged with recommendations aimed at reducing health inequalities. Culturally competent interventions have been criticised on the grounds that they increase prejudice and stereotyping. It therefore remained unclear whether culturally competent interventions could actually reduce health inequalities among MEM. After reviewing the literature published between 2005 and 2011, we identified 61 papers that met our inclusion criteria.

Our results showed that, without improvements to methodological rigor and efforts to target structural sources of inequality, culturally competent interventions are unlikely to contribute to the reduction of health inequalities among MEM, as regards Type 2 Diabetes Mellitus. Most of the studies reviewed did not have the proper design to yield proper evidence of a reduction in health inequalities. Moreover, as the role of socioeconomic status was not clearly assessed, it is likely that confusion may have occurred between inequalities due to ethnicity and those due to socio-economic factors. Consequently, the effects of the interventions remain unclear.

In Chapter 2, we assessed whether culturally competent interventions improved quality of care. More specifically, the review attempted to identify the extent to which culturally competent interventions for MEM adults suffering from Type 2 diabetes mellitus reflected the dimensions of the Chronic Care Model. We identified the Chronic Care Model and the culturally competent components in studies published between 2005 and 2011. After reviewing 5284 papers, 25 studies were included. Self-management (n=24) was the most frequent Chronic Care Model component. Eighteen interventions integrated cultural norms of the patients. We initially attempted to meta-analyse the results, but the sensitivity tests were inconclusive, due to the heterogeneity of the patients enrolled in the studies, the duration of the follow-up, and other design issues. The Chi^2 test for heterogeneity was highly significant (coefficient value: 300.84 $p<0.0001$). The I^2 statistic had a value of 98.7%. The first major finding was the convergence between cultural competence and self-management. Although the developers of the Chronic Care Model recommend cultural competence as a dimension of the delivery system design, we observed the presence of cultural competence in the development of self-management aspects of the intervention. These interventions did not imply modifications to the delivery system design. They focused on patients, with minimal emphasis on health services or health professionals. The second major finding was that cultural competence has been developed within the field of “Communities and Policies”, and more specifically in the field of “Communities”.

Cultural competence components require a collaborative approach: by linking communities and health care institutions, they reinforce social cohesion. They also integrate the values and preferences of the community, while delivering chronic care.

1.2. Cultural competence in health services in Belgium: Results from the COMETH study

In Chapter 3, we analysed cultural competence from the perspective of responsibility. Most cultural competence programs assume that health professionals accept that they have a responsibility to adapt to meet the needs of MEM, but this assumption had yet to be proven to be correct. In this study, we surveyed the views of health professionals on their responsibility to adapt. We used a purposive sampling model where the unit of sampling was the health service. We used and adapted the scale of relative responsibility developed and validated by Hudelson et al. (2010) in Switzerland [7]. Respondents were asked to take a position on whether adaptation was the responsibility of the patient or of the health professional. The analysis took place in three stages. First, we computed descriptive statistics. We then performed a factorial analysis to analyse the correlation between the relative responsibility items. We also used factor analysis to convert the items into a continuous score of relative responsibility. Three dimensions of responsibility were constructed by factor analysis: communication, negotiation of values, and health beliefs. Our results showed that the sense of responsibility for the adaptation of health care depended on the nature of the adaptation required. When the adaptation directly concerned communication with the patient, health professionals declared that they should be the ones to adapt. When it came to cultural preferences, however, the responsibility was seen to be the patient’s. Most respondents were unclear when it came to the question of adapting to health beliefs. A regression analysis indicated that the main characteristics associated with placing the burden of responsibility on the patient were: being Belgian, not being a physician, and working in a primary-care service.

In particular, health care professionals did not consider it to be their responsibility to adapt to cultural diversity. If health professionals do not feel a responsibility to adapt, they are less likely to be involved in culturally competent health care.

In Chapters 4 and 5, we investigated the role of inter-professional relationships on the diffusion of cultural competence within health care organisations. We hypothesised that cultural competence is socially learned, because of the role of social learning among health professionals, the importance of externalities in adopting behaviours, and the influence of norms within groups.

In Chapter 4, we tested the hypothesis that health care professionals are more likely to be culturally competent if their leaders are culturally competent themselves. A bivariate regression indicated that the cultural competence of individuals increased with the cultural competence of the leaders (beta=0.24, p<0.01). The cultural competence of individuals increased with the cultural competence of the leaders (beta=0.20, p<0.01), after controlling for contextual and sociodemographic variables. An overall interaction analysis suggested that the leadership effect depends on the personal skills of the leaders, rather than on their professional experience. This suggests that cultural competence among health professionals is partly acquired through role modelling. The implementation of cultural competence therefore requires an appraisal of inter-professional relationships and an acceptance of the importance of leadership role modelling within the health care services.

In Chapter 5, we tested two hypotheses: 1) that context influences the social structure of the health services and, consequently, the cultural competence of health professionals, and 2) that two socially close health professionals are more likely to share the same level of cultural competence than two health professionals who are not socially close.

In order to test the first hypothesis, we identified the most relevant variables of social structure through a factor analysis, then performed a regression analysis of the contextual variables on the social structure of the services. We also performed a regression analysis of the social structure of the services on the cultural competences of the health professionals. Overall, in the bivariate regression model, there was a slight but significant negative effect of the H Index on cultural competence, but this effect disappeared when contextual variables were controlled for.

In order to test the second hypothesis, we worked out the coefficients of social proximity (Moran's I) and correlated the cultural competence between dyads (pairs of two individuals with reciprocal or non-reciprocal ties). Overall, there were no significant peer-effects for cultural competence and sense of responsibility for any of the relationships. The correlation coefficients for cultural competence between dyads were not significant for reciprocal or non-reciprocal relationships.

In Chapter 6, we report on our experience of conducting research on ethnicity and health using a social network analysis design. To our knowledge, this thesis is one of the first studies to combine cultural competence and social network analysis. We analysed the data collected during the COMETH project. We correlated participation with the characteristics of the health professionals and contextual variables. We performed a regression model to identify the covariates of participation. We identified the most popular individuals in each health service, based on their in-degree centrality, and we tested whether the popularity of an individual increased that individual's likelihood of participation. Mean participation rate was 60.6%. Participation varied considerably between the different types of services but not between professions. Rates of missing responses and automatic responses were less than 1% in the whole sample. Regression models indicated that exposure to migration and working in oncology units and communicable diseases units were significantly associated with non-participation. The popularity of an individual increased that individual's likelihood of participation in the research. We concluded that social network techniques are useful tools for assessing social relationships among health professionals, but require some improvements to ensure greater participation.

1.3. Best practices and political recommendations for improving equity in health care for migrants and ethnic minorities

In Chapter 7, we identified the specific challenges experienced by professionals in clinical encounters with irregular migrants, paying particular attention to the differences between types of services and between the different countries involved in the EUGATE project. Despite variations in health care entitlement for irregular migrants, most of the countries investigated faced similar issues. No important differences in frequency were noted between countries entitling irregular migrants to unrestricted access to health services and those providing minimum health care for irregular migrants. Communication problems and their consequences were the main themes in all services. Although we expected differences due to different legislation regarding access to health care, a quarter of the interviewees stated that there were no differences in the actual care provided for irregular migrants, when compared with patients in a regular situation. We concluded that the needs of the patients and the values of the staff appear to be as important as the national legal framework, with staff in different European countries adopting a similar pragmatic approach to delivering health care to irregular migrants. While legislation might help to improve health care for irregular migrants, more appropriate organisation and local flexibility are equally important, especially for improving access and care pathways.

In Chapter 8, we described the national legal framework of access to health care and the related procedures for the most representative categories of migrants: migrants with legal residency permits (including refugees), asylum seekers, and irregular migrants. We focused on the situation of irregular migrants and illustrated the divergence between the legal situation and what happens in practice. Indeed, although access is granted, patients did not always receive the services that they needed, because health professionals were sometimes unaware of administrative procedures. Moreover, the legislation concerning urgent medical aid contradicts the legislation on patient rights, which increases inequalities between irregular patients and other patients.

In Chapter 9, we reported the political recommendations on how to improve the Belgian health system from experts on intercultural care. ETHEALTH demonstrated the feasibility of creating a comprehensive strategy to decrease ethnic health inequalities, even in a political context where migration issues are sensitive. We also identified the low level of commitment on the part of policymakers as a barrier to the effective implementation of the recommendations. Consequently, the implementation of best practice mainly relies on health professionals and health institutions. The 46 recommendations encompass the context, the institutions, the health professionals, and the patients themselves. We would like to highlight one recommendation because of its relevance and short-term feasibility: “Data on migrants and ethnic minorities”. The lack of accurate data on ethnic background or nationality in health data prevents the development of relevant programs aimed at tackling inequalities. Health services should improve data collection on vulnerability factors of patients.

2. Discussion of the main findings

Our first main finding is that there is still no evidence that cultural competence reduces health inequalities among MEM. As emphasised in the introduction, socioeconomic and ethnic inequities are co-constructed, and their effects are difficult to distinguish [8,9]. In our literature review, we observed that most studies have been designed in such a way that they could provide evidence of the role of socioeconomic status or the ethnic appurtenance (Chapter 1). Most of the studies reviewed did not have the adequate design to be able to prove a reduction of health inequalities (Chapter 1). Measurement of variables of SES and ethnicity was often lacking or inaccurate, as has been previously observed [10]. The role of socioeconomic status was not clearly assessed: confusion may have occurred between inequalities due to ethnicity and those due to socioeconomic factors. Without adequate data to identify the needs of patients, interventions are likely to miss their objectives of reducing health inequalities and improving quality of care.

The effectiveness of actions aimed at tackling inequalities can only be achieved if interventions are assessed for their differential impact by ethnicity, gender, and socioeconomic status [10]. An ideal study design would involve stratified sampling of the population according to ethnicity and SES, with an equal balance of gender in each group. The analysis would compare the different groups, using the majority group as a reference. The challenges of data collection and the co-construction of ethnic and socioeconomic inequities cannot impede the acknowledgment of discrimination and racism in health services. In fact, cultural competence cannot be achieved if discrimination and racism are not acknowledged [11]. Moreover, under some circumstances, inequities occurred because of ethnic-blind services, which did not take into account the specific needs of the patients [12]. Health services therefore need to take into account the ethnic dimensions of their patients, offering them specific services to suit specific needs. In Chapter 2, we showed that specific culturally competent interventions were likely to improve the quality of care.

There appears to be a contradiction between the results of our two literature reviews. The first literature review showed that universal interventions were more likely to reduce health inequities for MEM than specific interventions. The second literature review, on the other hand, showed that specific interventions were more likely to improve the quality of care for MEM than universal (or generic) interventions. These findings will constitute a real challenge for further interventions. In fact, neither universal interventions nor specific interventions are likely to improve either quality or equity of care.

We could ask whether developing specific interventions for MEM is compatible with the integration of MEM into society. Kymlicka and Banting (2012) discussed the compatibility of civic integration with multicultural policies, as part of a wider debate in Europe about integration and immigration [13]. The fact is that civic integration and multiculturalism are interdependent [14]. Focusing on multiculturalism and diversity increases the risk of communautarism and segregation, while focusing on civic integration neglects the cultural and ethnic particularities of individuals [13,15]. In some cases, MEM should have specific services because they have specific needs[48], but integrating these specific services into the mainstream health system (or into mainstream public services) is more likely to support wider integration than setting these services apart. In the ETHEALTH project, experts acknowledged that, under certain circumstances, specific services should be provided to MEM (Chapter 8). This differential provision of health care facilities will ensure that all patients achieve the same outcomes, according to what they need to reach an acceptable level of functional health [16]. Caring for victims of genital mutilation or human trafficking requires specific management and specific training of the health professionals, due to the complexity of these situations [17,18]. However, developing certain specific initiatives for MEM, such as the enrolment of intercultural mediators, may also have benefits for all citizens. For example, consultations with the assistance of intercultural mediators allow for quicker and more accurate identification of the needs of the MEM patient [19] and prevents misdiagnosis or maladapted treatments. Consequently, specific interventions for a specific groups could decrease costs for the entire health institution [20,21].

Our second main finding was that, broadly speaking, health professionals did not feel responsible for adapting health care to suit MEM patients. They did feel responsible for adapting when the adaptation concerned communication, since health professionals need to understand their patients in order to do their job [22]. Through our results, we observed that there was a low level of commitment towards cultural competence among health professionals. Cultural competence remains a discourse rather than interventions in health services: policies, regulations and even interventions exist but are not always implemented or used by health professionals. The results from Chapter 7 show that health care professionals muddled through in order to provide health care to irregular migrants, even when legal entitlement to health care is organised. ETHEALTH

---

[48] The same fact could be applied to other categories of vulnerable patients who have specific needs at some points of their life course or at some points of their trajectory in the health system such as elders, children, disabled persons or women.

emphasises the role of experts in providing recommendations, but the low level of political commitment does not support the implementation of these recommendations into practice (Chapter 9). There were some unexpected results for the primary care services, which support the need for further studies on responsibility and adaptation of health care to needs of MEM, including on the issue of responsibility from the perspective of health professionals and that of responsibility from the perspective of MEM patients.

Our third main finding suggests that cultural competence is not (yet) a socially shared behaviour among health professionals and that being culturally competent is not yet a norm within health services (Chapters 4 and 5). Cultural competence appears to be mostly an individual behaviour. As with systematic hand-washing, as long as being culturally competent is not considered to be a norm in health services, it is unlikely that training health professionals will make any difference in terms of reducing health inequalities and improving quality of care. Cultural competence will become a norm if individuals perceive that being culturally competent is appropriate, optimal, or correct when providing health care for MEM [23]. If the health professionals feel responsible for adopting the norm of being culturally competent, they will be more likely to do so (Chapter 3). The adoption of cultural competence by leaders and the elite, the social valorisation of cultural competence, and institutional support will all contribute to the development of a norm of cultural competence among health professionals (Chapter 5) [23].On the other hand, social interactions can also hamper, rather than foster, the diffusion of innovations [24], and support the adoption of negative norms towards cultural competence [23]. Being the most popular individual within a service is not especially associated with capability of meeting clinical guidelines [25]. Furthermore, boundaries between health professionals prevent individual health professionals from adopting innovations [26].

However, our analysis of the leadership effect supports the hypothesis that informal leaders are likely to influence the cultural competence of health professionals. Previous studies have reported on the role played by leaders in promoting learning within interdisciplinary teams in various contexts [27]. Leadership roles have been reported to improve the quality and safety of health care for patients [28,29] and to have a positive effect on the prevention of nosocomial infections [30], the implementation of a hand-washing culture [31], and on professional practices and health care outcomes [32]. The development of positive attitudes from leaders towards intercultural care and commitment on behalf of leaders to intercultural care is likely to facilitate the implementation and/or diffusion of culturally competent attitudes [33-35]. Influential leaders in cultural competence have been recommended as an organisational strategy to support the development of cultural competence at the organisational level [36]. Moreover, evidence-based strategies stress the role of leaders in the reduction of health inequalities [37]. Making leaders accountable is also likely to reduce inequalities in other aspects of society, such as the labour market [38]. This supports our hypothesis that cultural competence is socially learned. Further interventions should focus on the diffusion of intercultural norms through leadership and peer-effects.

3. Methodological considerations and unaddressed issues

Each chapter includes the specific strengths and limitations of each study. Chapter 6 also discusses the process by which health professionals participated in the empirical part of the thesis. This section presents the general strengths and limitations of the thesis.

3.1. Measurements

Cultural competence was self-reported by the health professionals. Data from the COMETH and EUGATE projects are vulnerable, in some ways, to social desirability bias, since health professionals may overestimate their cultural competence [39-41]. In addition, ethnicity and intercultural care remain sensitive topics in Belgium and acknowledgement of the social participation of MEM remains sparse [42]. Some health professionals expressed their concerns about delivering specific health care to MEM during the qualitative interviews of the EUGATE project or in the “comments” section of the COMETH questionnaire. For example, in one hospital, the head of the social service strongly disagreed with the concept of “health inequalities”. He justified his position by saying that there was no inequality in his hospital. Another concern about self-reported cultural competence is the lack of knowledge about interventions in intercultural care on the part of health professionals. There is no formal training in cultural competence for health professionals. Consequently, some health professionals may consider certain practices to be culturally competent that are not (and vice-versa). Some health professionals declared that they relied on “cook books” of intercultural care, although this kind of intervention is likely to increase stereotypes and prejudices towards MEM patients [43,44]. Moreover, as the participation rate was lowest in the health services with the highest exposure to migration, our data may reflect a better situation than it is in reality and then underestimate the severity of the situation of MEM patients in health services.

Although methods of social network analysis are increasingly being used in health service research, to our knowledge, this is the first time that this method has been used in the Belgian health services in the context of intercultural care. We used the social network analysis alongside census sampling (also called complete network data [45]) to identify social relationships between health professionals. Lists of participants were sent by the person in charge of each health care service and contained the full names of the expected participants, their profession and gender, and identified formal leaders. Each health professional identified their social relationships with their colleagues using a list containing the names of all the staff members. The respondent also had to identify him/herself in the list, to ensure the validity of the social network part. For practical reasons, the questionnaires were not anonymous. A social desirability bias may therefore have occurred [46]. However, when recruiting the services, we offered the possibility of anonymous questionnaires, by replacing names with a unique identification code only available to respondents. Only one service asked for this, but the final participation rate of this service did not differ significantly from other services. Across the whole sample, a small proportion of respondents did not identify themselves.

We assessed only the existence of the relationships between health professionals – we did not assess their strength or their frequency. We however cumulated the relationships in order to assess the multiplicity of the relationships and hence the strength of the relationships. Further studies should also assess the frequency of the relationships. Indeed, health professionals, especially nurses, are characterised by a high rate of turnover. This may affect our results, as our design did not account for the fact that part-time health professionals may have had fewer opportunities to form ties with their colleagues. Measuring the frequency of relationships may also control for the bias of reliability. In networks characterised by a high degree of turnover, or when behaviours are likely to be influenced by context, responses from the individuals are likely to vary with time [47].

We tried to assess the full network of relationships between all the health services in the two first hospitals. Although the head nurses were informed and agreed to participate in the project, we did not collect enough data to compute the social network measures of the hospitals. As this data collection method was extremely time-consuming but yielded few all results, we did not pursue this method in other hospitals. Again, the low levels of commitment on behalf of hospital management were perceived as jeopardising this data collection. We also collected data on the associative networks surrounding primary care services. Again, participation rates were extremely variable between respondents within the same primary care service, which prevented us from analysing the data using social network methods. We will, however, conduct a qualitative analysis of this data.

In two hospitals, we collected data on intercultural mediation, since these two hospitals had federal licenses for this activity. We did not present this data in this thesis as it concerned only two hospitals and only a small number of health professionals participated. We did, however, present the results at one of the two hospitals, helping them to improve the delivery of intercultural mediation for both health professionals and patients. The next step may be to compare this data with the results from interviews of patients conducted by a public health student [48].

3.2. External validity of the results

Data was collected in Brussels and Wallonia but not in Flanders, although we did develop a Dutch-language version of our questionnaire for Brussels. As our results showed, local context is likely to influence the cultural competence of health professionals. The number of Dutch-speaking health professionals was extremely low (n=7) within the total sample, preventing us from analysing the influence of being of Flemish origin on cultural competence, particularly with respect to responsibility (Chapter 3). Since Flanders has acknowledged the existence of ethnic minorities at a political level, i.e. in its housing policy, a different perception of migration could be expected. Jacobs and Rea (2005) showed that the differences between Flanders and Wallonia in defining MEM influenced the output of the Belgian scientific community [49]. It is likely that such a political climate could influence the perceptions of health professionals and influence their resistance to or acceptance of diversity in health care. In the United States, Paez et al. (2009) showed that political appurtenance influenced cultural competence [50]. We could perhaps expect similar results in Belgium. Further studies on cultural competence should pay attention to the representativeness of health professionals at a national level, since our sample is representative only at a regional level.

We selected the geographical zones for data collection according the National Register. Only foreigners with legal residency permits are recorded in this register [51]. Belgian citizens of foreign origin are registered as Belgians and asylum seekers are not recorded. Consequently, this did not reflect the exact situation of the district. There could have been an exposure bias for some of the services included in the data collection. The effect of the variable of objective exposure based on the National Register could have been confused by local context. For example, one of the hospitals was located in the same area as a reception centre for asylum seekers. Consequently, this hospital was the reference point for this reception centre. However, the differences in exposure were observed at the service level rather than at the institutional level, which was consistent with levels of exposure observed in other hospitals. Further studies should explore the role of context by developing more accurate measures of the exposure to migration, notably by using data from districts or data from the CPAS.

There may have been yet another confounding bias, due to the fact that health professionals may choose their workplace based on local environment [50]. As stated by a physician in an accident and emergency ward[49], "if you do not want to work with foreigners, you do not work in Brussels. You go to Oostende". Consequently, we may have observed more culturally competent health professionals in health services in areas with high levels of exposure to migrant patients because these health professionals chose to work there. A reverse causality may thus occur: health professionals may not become culturally competent because of exposure to migration, but may be exposed to migration because they are culturally competent. However, our results showed that participation was lower in health services in areas with high levels of exposure to migration than in health services in areas with low or medium levels of exposure to migration.

3.3. Unaddressed issues

We have mainly attributed the failure of cultural competence to the fact that, so far, it has been considered to be an individual behaviour rather than a socially shared behaviour among health professionals. An alternative explanation for the

---

[49] Quote retrieved from an interview of the EUGATE project (see chapter 7).

failure of cultural competence may lie in the power issues involved in the therapeutic relationship. As stated by the Commission of Social Determinants of Health, health professionals are responsible for helping patients to exert their right to health. The right to health "aims to create social conditions under which previously disadvantaged and disempowered groups are enabled to achieve the greatest possible control over their health"[52]. This leads us then to the following question: what if cultural competence is not a norm in health services because of power sharing between health professionals and vulnerable patients? Measures of cultural competence tend to neglect the role played by power issues in the maintenance of inequality [53]. For health professionals, adapting practices may be considered to be an implicit way of acknowledging that patients are more powerful in the relationship than they are [54]. Power underlies all relationships within a society, from macro- to micro-levels, and has many consequences for health and inequality [55-57]. We could hypothesise that, in societies where power is shared equally among its components or where the transfer of power is commonly accepted, the health system is more culturally competent than in societies where power remains in the hands of particular actors.

One could argue that feeling responsible for adapting to some of a patient's needs is not sufficient (Chapter 3): it is equally important to accept the sharing of power with the person that is most knowledgeable about these needs: the patient. The effectiveness of cultural competence at reducing health inequities may depend on the capacity of health professionals to share power with MEM patients [58]. We would like to emphasise the fact that being culturally competent is not yet a socially shared norm (Chapter 5), but sharing the power is also a potential norm. How can we spread the norm of power sharing among health professionals? What would happen if some health services within an institution were in favour of power sharing, while other services were not? Would there be a risk of increasing inequality between patients? We could also ask what the effect would be of having opposite norms within the same institution (or service): is there any circumstance under which not having norms of power sharing would be preferable to sharing opposite norms? If being culturally competent alone at an individual level is not effective (Chapters 4 and 5), then being culturally competent alone at a service level may not be either. What would the consequences be for the patients of being hosted in institutions where norms about integration diverged? Attitudes of health professionals towards MEM are likely to be unstable in a context where there is no consensus about what adequate attitudes should be [23]. Health professionals may not feel confident about the appropriateness of their attitudes due to a lack of support from influential others [23]. We could therefore question the relevance of a culturally competent health system in a society that does not pay attention to diversity. Answering this question is beyond the scope of a thesis on public health and would require a discussion on “Fair Societies” at a much larger scale. Public health researchers are likely to bring important contributions to debate, but solutions would only emerge from participative discussions with all actors concerned, not only the researchers.

Further studies should assess the perspectives of patients on cultural competence in health care. Although models of cultural competence emphasise the importance of the patients in the process of becoming culturally competent, our study was limited to the perspectives of health professionals. We do acknowledge that the perspectives of the patients, including their needs and their expectations of cultural competence and the health system [59] would surely complement our findings. Attention should be paid to patient autonomy, participation in their own treatment, and patient rights and researchers should avoid adopting paternalistic attitudes or recommendations.

4. Recommendations & perspectives

4.1 Recommendations

Chapter 7 presents best practices in health services and Chapter 9 presents recommendations for policymakers, health services, and health professionals[50]. In this discussion, in addition to the recommendations of ETHEALTH and EUGATE, we would like to highlight two key recommendations, because of their feasibility and their degree of priority in the Belgian context.

Firstly, the implementation and diffusion of cultural competence could be influenced by leadership effects. Based on our results (Chapter 4), we suggest that cultural competence on the part of health professionals is partly acquired through role modelling and the influence of leadership. Consequently, we recommend that training programs in cultural competence focus on positive behaviours to adopt in order to spread positive models [60]. The content of the training must include both socioeconomic and ethnic inequities, as the effects of these are difficult to differentiate. Focusing on the vulnerability of the patients is also more likely to be accepted by health professionals than focusing on the ethnicity of the patients, since ethnicity remains a sensitive topic in health services [61].Furthermore, attention should be paid to the fact that “being culturally competent” is likely to reflect a cultural model based on scientific evidence and Western norms of well-being. The concept of cultural competence may support the development of paternalistic attitudes rather than patient-centred ones [62]. A cautious evaluation of the needs of the patients may prevent the transfer of cultural content that does not match the needs of the patients. A social network analysis of the pattern of communication within the health service may help to identify informal leaders and reinforce the efficiency of the training. Our factor analysis of the social network parameters highlights the fact that the structure of the network can be described using four variables: the H index, geodesic distance, density, and fragmentation (Chapter 5).

---

[50] For those who are interested by a detailed review of the recommendations, the final report of ETHEALTH is available at: http://www.health.belgium.be/eportal/Myhealth/19074155_FR?fodnlang=fr#.Ugi4naz-Qtc

Secondly, the diffusion of positive norms related to intercultural care may also depend on institutional commitment. By law, hospitals have to comply with certain standards, which are likely to foster normative expectationsWithin the field of cultural competence, such institutional normative expectations may depend, for example, on the licensing of hospitals for intercultural mediation. We do believe that intercultural mediation is an effective strategy for improving quality of care. Intercultural mediators may provide advice and support thorough social learning related to cultural competence. Intercultural mediators act as bridges between patients and health professionals. They have a role of cultural brokerage, alongside interpreting, health education of patients, and advocacy [19,63-70]. The presence of intercultural mediators is a form of institutional commitment towards intercultural care and may somehow constitute a normative influence on health professionals. However, intercultural mediators are unlikely to make a difference if they are not acknowledged as powerful actors in the institution. Indeed, the success of such interventions is related to the adoption of these interventions by the most influential individuals in the institution or health service. The diffusion of a medical innovation by non-influential health professionals depends on the exposure of the latter to health professionals that are considered to be members of the hospital elite [71]. Membership of such an elite may be due to personal factors, such as having residency training in a top-ranked hospital, or to organisational factors, i.e. working in high-tech ward. Because of their exposure to certain resources, members of the elite play a key role in the diffusion of new practices among their counterparts who do not benefit from these resources [72]. In fact, norms are often spread by elites and the adoption of a norm by the elites influences its adoption by the rest of society [73]. Social validation of cultural competence by peers is likely to create a cultural competence norm by transforming a positive evaluation of culturally competent behaviours into a positive normative evaluation [23].

The following box presents additional recommendations based on our findings. These recommendations address the various levels of the health system in order to ensure access and quality of health care for MEM.

Box 1 Recommendations for improving access and quality of care within health services for MEM in Belgium

Health professionals

- Training in diversity, with emphasis on patient-centred care[51,52].
- Ensuring the completion of anamnesis at patient admission and the completion of routine data collection
- Assessment of the needs of the patients at the physiological level but also at the mental, social, and cultural level
- Sharing experiences of using resources available to cope with diversity in team meetings or during informal moments

Leaders within health services

- Being an example: using the resources available to cope with diversity in front of staff
- Valuing and supporting members of staff who use these resources
- Increasing awareness of diversity during informal moments, especially when staff is ethnically diverse
- Identifying informal leaders within services and the communication pattern between members of staff
- Regularly diagnosing problems and the resources available to cope with these problems (in the service and in the institution)
- Valuing data collection and the accuracy of anamnesis on admission of patients to the service
- Presenting diversity as a strength for the health services

Health Institutions

- Integrating the management of diversity into the strategic development plan of the institution as part of quality assurance
- Valuing the role of intercultural mediation in lifelong learning and integrating intercultural mediators into medical and nursing staff meetings, in collaboration with allied health professionals and social staff.
- Supporting and valuing data collection, providing incentives to do so
- Including additional time for the anamnesis as part of outpatient activities or during the first day of admission to inpatient activities

---

[51] Patient-centeredness is defined as "providing care that is respectful of and responsive to individual patient preferences, needs, and values, and ensuring that patient values guide all clinical decisions" (retrieved from the Institute of Medicine, 2001 [74])

[52] For example, Epner and Baile (2012) suggested a list of 8 principles of patient-centred cultural competence and relevant skills to develop, which are easy to integrate into an encounter with a patient [75].

Box 1 (continued)

Health institutions

- Valuing and highlighting best practices in the health services that pay attention to diversity and the positive consequences of such practices on the quality of care and costs to the institutions

Researchers and academics

- Rethinking the concept of cultural competence within the wider perspective of the reduction of health inequities and improvement of quality of care
- Identifying efficient strategies for coping with diversity in health care
- Identifying the economic impact on the health system of interventions for coping with diversity
- Integrating the perspectives of the patients

Policymakers

- Improving the registration of ethnicity in health services databases (National Health Interview Survey, DIRHM[53], RCM[54], CISP[55])[56]
- Financial incentives to "compensate" institutions developing strategic plans that include diversity
- Licensing of health professionals in diversity management
- Accreditation in diversity management for health professionals in lifelong learning programs[57]

4.2. Perspectives

This thesis highlighted the role played by inter-professional relationships and organisational commitment in the implementation and diffusion of cultural competence among health professionals. These findings support the need to test the effectiveness of interventions aimed at encouraging the inter-professional network to solve problems for MEM patients. Such problems include, for example,

---

[53] DIRHM Données Infirmières du Résumé Hospitalier Minimum [Nursing Information – Minimum Hospital Summary]

[54] RCM Résumé Clinique Minimum [Minimum Clinical Summary]

[55] Classification Internationale des Soins de Santé Primaires [International Classification of Primary Care]

[56] Intercultural mediation is already included in the RHM but the registration is limited to mediation and excludes interpreting activities performed by an intercultural mediator / a professional interpreter/ a staff member / a family member.

[57] Similarly to the accreditation in ethics for example

organising consultations with interpreters, understanding the specific risk factors faced by MEM, dealing with cultural demands in health care, and avoiding covert discrimination practices. A recent review highlighted the potential for networks to spread professional skills such as cultural competence. In fact, networks can increase inequality if the norm that is being spread across the professional network does not support diversity [76]. Many ideas and practices, including innovations such as cultural competence, are spread through inter-relational networks. The social factors included in the inter-relational networks, such as homophily with the adopters of the innovations, or the degree of social proximity between adopters and non-adopters, are more powerful influential factors than economic ones when it comes to adopting a new practice [77]. Previous research has demonstrated the role of networks in spreading innovations in health care [25] and we have highlighted the role played by informal leaders in spreading cultural competence (Chapter 4).

Assessing the efficiency of inter-professional networks is one of the current empirical challenges in the field of social network analysis, since the efficiency of a network will depend on its objectives [77,78]. The efficiency of a network is measured by the rapidity of the diffusion of information across the network, the number of individuals between the initial contact and the target who is able to solve the problem, the presence of cross-boundary relationships (relationships involving individuals that belong to different groups), the presence of gatekeepers (individuals identified as key actors in the diffusion of information), or the presence of one of several informal leaders. Both informal and formal leaders may affect the values of cultural competence and may provide information or assistance, especially if their leadership is based on expertise or reference (Chapter 4). Leaders are likely to reflect the normative influence of institutions and to play a role in the social learning process through role modelling. They could therefore advise and support their members of staff to become culturally competent. Additional characteristics influencing the efficiency of networks include the degree of hierarchy among actors, the density of the relationships, and the presence of strong and weak relationships between individuals. Moreover, the surrounding environment of the networks may influence their structure and, consequently, their efficiency [77].

5. Final conclusions

This thesis was aimed at challenging the health inequities experienced by migrants and ethnic minorities by involving institutions at the meso- and macro-levels. We hoped to contribute to the understanding of the mechanisms underlying the implementation and diffusion of cultural competence among health professionals. We would like to conclude this thesis with one final insight into the concept of "cultural competence", in order to open the debate on the relevance of "cultural competence" as a concept and/or as a "quality label" in health services.

Despite evidence of positive effects of cultural competence on quality of care, cultural competence is still rarely considered as part of effective management strategies by health care institutions, especially in continental Europe (Chapter 9) [79-82]. Cultural competence is often associated with the idea of social justice [83-85]. In some countries, cultural competence even has the explicit or implicit mission of erasing burdens of the past that may still affect the delivery of care, i.e. the Tuskegee experiments in the United States [86], the death of David Bennett in the United Kingdom [87], or the abuses of Aborigines in Australia or of Native populations in Canada [88,89]. Moreover, health professionals may choose to work with MEM because they already feel that they are culturally competent [50]. These health professionals are likely to adhere to ideals of social justice or humanitarian principles. For example, primary care services explicitly state that social justice is one of their values [90]. In our research, we observed that being exposed to migration was likely to influence participation in research projects on cultural competence (Chapter 6). These health professionals are somehow already convinced about the relevance of cultural competence.

The challenge is with those who are not sensitive to arguments of social justice. Health institutions, like businesses, are under more and more pressure to reduce their costs, and tend to integrate managerial models aimed at keeping expenditure under control. Under these circumstance, the values of equity and social justice are sometimes difficult to integrate [91]. We hypothesise that these health institutions (and health professionals) would be more sensitive to a utilitarian approach of health care for MEM [92]. A utilitarian approach focuses on negative externalities induced by the presence of MEM patients and attempts to protect the general population from the consequences of having MEM patients in the health system (Chapter 7). Negative externalities mostly encompass direct threats to the mental and physical health of the population e.g. risk of tuberculosis, but may also encompass additional costs to hospitals, risk of misdiagnosis and medical errors, extra time needed in the consultation room, additional administrative procedures, or delays in payment when it comes to urgent medical aid. Future strategies aimed at reducing ethnic health inequalities should emphasise the impact of cultural competence on the processes and the costs encountered by institutions [81]. Consequently, cultural competence should be considered to be strategy for managing quality and safety rather than equality [93,94].

This leads us to the need for rethinking cultural competence both as a concept and as a label. Throughout this thesis, we have conceptualised cultural competence according to its previous definitions, especially those of Betancourt (2003)[95] and Cross (1989)[96]. After reviewing the literature on cultural competence, we observed two trends in the definition of cultural competence. The first trend defines cultural competence in terms of improving quality (Chapter 2), while the second defines cultural competence in terms of reducing health inequity (Chapter 1). Referring to “cultural” competence is likely to induce the implicit idea that health system needs to develop specific interventions. However, our results showed that specific interventions had mainly an objective of quality improvement (and the question could be asked whether specific interventions are likely to increase the gap between MEM and the rest of the population) (Chapter 2).

Moreover, the concept of “culture” is often misunderstood and has many interpretations, leading to uncertainty and subjectivity in the delivery of health care [75].

Consequently, we would like to recommend an alternative label to replace “cultural competence”. We would suggest that health systems develop “competences in diversity”. “Competences in ethnicity and diversity” have the main objectives of reducing of health inequities and improving quality of care for vulnerable groups (not restricted to MEM). Whatever its source – gender, ethnicity, age, sexual orientation, or socioeconomic status – difference should be integrated into the delivery of fair health care for patients. What the difference consists of is ultimately unimportant: what matters is how this difference is integrated into the health care services and into the relationship between health professionals and their patients. Patient-centred care or community health, based on community diagnosis, which includes the assessment of the needs and demands of the patients, may be an alternative solution to the problem of improving equity in health for MEM. Allowing the integration of the specific needs of a vulnerable group into the delivery of more generic health care is relevant not only to MEM but also to other vulnerable groups such as the poor and underserved, women, and the elderly. Future interventions aimed at reducing ethnic inequalities should be oriented towards the delivery of “diversity competent” health care rather than “culturally competent” health care. In order to achieve this double aim of equity and quality in health care, further studies should use the analytical framework developed by the Commission of Social Determinants of health, which encompasses both universal and specific approaches.

References

1. Christakis NA, Fowler JH: C**ontagion in prescribing behavior among networks of doctors**. *Marketing Science* 2011, **30**: 213-216.

2. Christakis NA, Fowler JH: **Social network sensors for early detection of contagious outbreaks**. *PloS one* 2010, **5**.

3. Christakis NA, Fowler JH: **Social network visualization in epidemiology**. *Norsk Epidemiologi* 2009, **19**: 5-16.

4. Christakis NA, Fowler JH: **The spread of obesity in a large social network over 32 years**. *New England Journal of Medicine* 2007, **357**: 370-379.

5. Keating NL, O'Malley AJ, Murabito JM, Smith KP, Christakis NA: **Minimal social network effects evident in cancer screening behavior.** *Cancer* 2011, **117**: 3045-3052.

6. Boyer L, Belzeaux R, Maurel O, Baumstarck-Barrau K, Samuelian JC: **A social network analysis of healthcare professional relationships in a French hospital**. *International Journal of Health Care Quality Assurance* 2010, **23**: 460-469.

7. Hudelson P, Perron NJ, Perneger TV: **Measuring physicians' and medical students' attitudes toward caring for immigrant patients**. *Evaluation and the Health Professions* 2010, **33**: 452-472.

8. Tilly C: *Durable Inequality*. Berkeley: University of California Press; 1998.

9. Lorant V, Bhopal RS: E**thnicity, socio-economic status and health research: Insights from and implications of Charles Tilly's theory of durable inequality.** *Journal of Epidemiology and Community Health* 2011, **65**: 671-675.

10. Whitehead M: **A typology of actions to tackle social inequalities in health**. *J Epidemiol Community Health* 2007, **61**: 473-478.

11. Tyson SY: **Can cultural competence be achieved without attending to racism?** *Issues in Mental Health Nursing* 2007, **28**: 1341-1344.

12. Karlsen S. Ethnic inequalities in health: the impact of racism. 3. 2007. Race Equality Foundation. Better Health Briefing.

13. Kymlicka W, Banting K. Is There Really a Backlash Against Multiculturalism Policies? New Evidence from the Multiculturalism Policy Index . Edited by GRITIM. 14. 2012. Working paper series.

14. Mouritsen P: T**he resilience of citizenship traditions: Civic integration in Germany, Great Britain and Denmark**. *Ethnicities* 2013, **13**: 86-109.

15. Gaffikin F, Morrissey M: **Community cohesion and social inclusion: Unravelling a complex relationship**. *Urban Studies* 2011, **48**: 1089-1118.

16. Ruger JP: **Fair enough? Inviting inequities in state health benefits**. *New England Journal of Medicine* 2012, **366**: 681-683.

17. Dubourg D, Richard F, Leye E, Ndame S, Rommens T, Maes S: **Estimating the number of women with female genital mutilation in Belgium.** *European Journal of Contraception and Reproductive Health Care* 2011, **16**: 248-257.

18. Ahn R, Alpert EJ, Purcell G, Konstantopoulos WM, McGahan A, Cafferty E *et al.*: **Human trafficking: Review of educational resources for health professionals.** *American Journal of Preventive Medicine* 2013, **44**: 283-289.

19. Baraldi C: **Forms of mediation: The case of interpreter-mediated interactions in medical systems**. *Language and Intercultural Communication* 2009, **9**: 120-137.

20. Bischoff A, Denhaerynck K: **What do language barriers cost? An exploratory study among asylum seekers in Switzerland**. *BMC Health Service Research* 2010, **10**.

21. Clegg J, Hanson Smart D, Hyo-Jung Bezemer D, Freeman J. Final Evaluation Report. 2011. Seattle, Pacific Hospital Preservation & Development Authority.

22. Ong LML, de Haes JCM, Hoos AM, Lammes FB: **Doctor-patient communication: a review of the literature**. *Social Science and Medicine* 1995, **40**: 903-918.

23. Friedkin NE: **Norm formation in social influence networks**. *Social Networks* 2001, **23**: 167-189.

24. Mascia D, Cicchetti A: **Physician social capital and the reported adoption of evidence-based medicine: exploring the role of structural holes.** *Social Sciences and Medicine* 2011, **72**: 798-805.

25. Fattore G, Frosini F, Salvatore D, Tozzi V: **Social network analysis in primary care: the impact of interactions on prescribing behaviour**. *Health Policy* 2009, **92**: 141-148.

26. Ferlie E, Fitzgerald L, Wood M, Hawkins C: **The nonspread of innovations: The mediating role of professionals**. *Academy of Management Journal* 2005, **48**: 117-134.

27. Edmondson AC: **Speaking up in the operating room: How team leaders promote learning in interdisciplinary action teams.** *Journal of Management Studies* 2003, **40**: 1419-1452.

28. Dixon-Woods M, McNicol S, Martin G: **Ten challenges in improving quality in healthcare: Lessons from the Health Foundation's programme evaluations and relevant literature**. *BMJ Quality and Safety* 2012, **21**: 876-884.

29. Kaplan HC, Brady PW, Dritz MC, Hooper DK, Linam WM, Froehle CM *et al.*: **The influence of context on quality improvement success in health care: A systematic review of the literature**. *Milbank Quarterly* 2010, **88**: 500-559.

30. Ferguson JK: **Preventing healthcare-associated infection: risks, healthcare systems and behaviour**. *Internal Medicine Journal* 2009, **39**: 574-581.

31. Roberts SA, Sieczkowski C, Campbell T, Balla G, Keenan A**: Implementing and sustaining a hand hygiene culture change programme at Auckland District Health Board**. *New Zealand Medical Journal* 2012, **125**: 75-85.

32. Flodgren G, Parmelli E, Doumit G, Gattellari M, O'Brien MA, Grimshaw J *et al.*: **Local opinion leaders: effects on professional practice and health care outcomes.** *Cochrane database of systematic reviews (Online)* 2011.

33. Jones ME, Bond ML, Mancini ME: **Developing a culturally competent work force: An opportunity for collaboration**. *Journal of Professional Nursing* 1998, **14**: 280-287.

34. Johnstone MJ, Kanitsaki O: **The politics of resistance to workplace cultural diversity education for health service providers: An Australian study**. *Race Ethnicity and Education* 2008, **11**: 133-154.

35. Yamada AM, Brekke JS: **Addressing mental health disparities through clinical competence not just cultural competence: The need for assessment of sociocultural issues in the delivery of evidence-based psychosocial rehabilitation services**. *Clinical Psychology Review* 2008, **28**: 1386-1399.

36. Chrisman NJ: E**xtending cultural competence through systems change: Academic, hospital, and community partnerships**. *Journal of Transcultural Nursing* 2007, **18**: 68S-76S.

37. Browne AJ, Varcoe CM, Wong ST, Smye VL, Lavoie J, Littlejohn D *et al.*: C**losing the health equity gap: Evidence-based strategies for primary health care organizations.** *International Journal for Equity in Health* 2012, **11**.

38. Pager D, Shepherd H: **The sociology of discrimination: Racial discrimination in employment, housing, credit, and consumer markets.** *Annual Review of Sociology* 2008, **34**: 181-209.

39. Constantine MG, Ladany N: **Self-report multicultural counseling competence scales: Their relation to social desirability attitudes and multicultural case conceptualization ability**. *Journal of Counseling Psychology* 2000, **47**: 155-164.

40. Worthington RL, Mobley M, Franks RP, Tan JA: **Multicultural counseling competencies: Verbal content, counselor attributions, and social desirability.** *Journal of Counseling Psychology* 2000, **47**: 460-468.

41. Loftin C, Hartin V, Branson M, Reyes H: **Measures of cultural competence in nurses: An integrative review.** *The Scientific World Journal* 2013, 2013.

42. Sacco M: Political participation of immigrants through new urban policies in Brussels: Constraints and small opportunities. *BELGEO* 2011, 41-50.

43. Paluck EL, Green DP: **Prejudice reduction: What works? a review and assessment of research and practice**. *Annual Review of Sociology* 2009,**60**:339-367.

44. Williamson M, Harrison L: P**roviding culturally appropriate care: A literature review.** *International Journal of Nursing Studies* 2010, **47**: 761-769.

45. Valente TV: **Methods**. In *Social Networks and Health. Models, Methods, And Applications*. Oxford: Oxford University Press; 2010:41-60.

46. Brands RA: **Cognitive social structures in social network research: A review.** *Journal of Organizational Behavior*, in press.

47. Clair S, Schensul J, Raju M, Stanek E, Pino R: **Will You Remember Me In The Morning? Test-Retest Reliability of a Social Network Analysis Examining HIV-Related Risky Behavior in Urban Adolescents and Young Adults**. *Connexions* 2003, **25**: 88-97.

48. Diarra A: *Interculturalité dans les institutions de soins: perspectives et attentes des patients migrants.* Université catholique de Louvain /Faculté de Santé Publique; 2012.

49. Jabobs D, Réa A: **Construction et importation des classements ethniques. Allochtones et immigrés aux Pays-Bas et en Belgique**. *Revue européenne des migrations internationales* 2005, 21: 35-59.

50. Paez KA, Allen JK, Beach MC, Carson KA, Cooper LA: **Physician cultural competence and patient ratings of the patient-physician relationship**. *Journal of General Internal Medicine* 2009, **24**: 495-498.

51. Service Public Fédéral Economie P.M.E.Classes Moyennes et Energie. Population par nationalité, sexe, groupe et classe d'âges au 1er janvier 2008. 2011.

52. CSDH. Equity, social determinants and public health programmes. Edited by Blas E, Sivasankara Kurup A. 2010. World Health Organisation.

53. Kumas-Tan Z, Beagan B, Loppie C, MacLeod A, Frank B: **Measures of cultural competence: Examining hidden assumptions.** *Academic Medicine* 2007, **82**: 548-557.
54. Christensen M, Hewitt-Taylor J: **Empowerment in nursing: paternalism or maternalism?** *British journal of nursing* 2006, **15**: 695-699.
55. Braveman P: Health disparities and health equity: Concepts and measurement. 27 edition 2006:167-194.
56. Fox AM, Meier BM: **Health as freedom: Addressing social determinants of global health inequities through the human right to development.** *Bioethics* 2009, **23**: 112-122.
57. Bury J: Les modèles sous-jacents : la relation entre les acteurs. In *Education pour la Santé. Concepts, enjeux, planifications*. 3 edition Bruxelles: DeBoeck Université; 1995.
58. Thackrah RD, Thompson SC: **Refining the concept of cultural competence: Building on decades of progress.** *Medical Journal of Australia* 2013, **199**: 35-38.
59. Wu Z, Penning MJ, Schimmele CM: **Immigrant status and unmet health care needs**. *Canadian Journal of Public Health* 2005, **96**: 369-373.
60. Curry SE, Cortland CI, Graham MJ: **Role-modelling in the operating room: Medical student observations of exemplary behaviour.** *Medical Education* 2011, **45**: 946-957.
61. Royal College of Physicians. How doctors can close the gap ? Tackling the social determinants of health through culture change, advocacy and education. 2010. London, UK, RCP Policy Statement. RCP Policy Statement.
62. Taylor K: Paternalism, participation and partnership-**The evolution of patient centeredness in the consultation**. *Patient Education and Counseling* 2009, **74**: 150-155.
63. Nierkens V, Krumeich A, di Ridder R, Van Dongen M: **The future of intercultural mediation in Belgium.** *Patient Education and Counseling* 2002, **46**: 253-259.
64. Verrept H: **Intercultural mediation: an answer to health care disparities?** In *Crossing borders in Community Interpreting: Definitions and Dilemnas*. Edited by Valero-Garcés C, Martin A. Amsterdam/Philadelphia: John Benjamins Publishing Company; 2008:187-201.
65. Plivard I: T**he practice of intercultural mediation with immigrants and their children**. *Connexions* 2010, **93**: 23-38.
66. Gavioli L, Baraldi C: **Interpreter-mediated interaction in healthcare and legal settings**. *Interpreting* 2011, **13**: 205-233.
67. Pignataro C: **Interlinguistic and intercultural mediation in healthcare settings.** *Interpreters Newsletter* 2012, **17**: 71-82.
68. Farini F: **Languages (and cultures?) in contact. Interpreting and Intercultural Mediation in Italian healthcare settings.** *Interpreters Newsletter* 2012, **17**: 55-69.
69. Shisheng L, Shuang L: **The role shift of the interpreter to a cultural mediator: From the perspective of cultural orientations and contexting**. *Babel* 2012, **58**: 145-163.
70. Coyer G: **Intercultural mediation: A mutual interpretation**. *Evolution Psychiatrique*, in press.

71. Burke MA, Fournier GM, Prasad K: **The diffusion of a medical innovation: Is success in the stars?** *Southern Economic Journal* 2007, **73**: 588-603.
72. Vanderveen KA, Paterniti DA, Kravitz RL, Bold RJ: **Diffusion of surgical techniques in early stage breast cancer: Variables related to adoption and implementation of sentinel lymph node biopsy**. *Annals of Surgical Oncology* 2007, **14**: 1662-1669.
73. Elias N: *La civilisation des moeurs*. Paris: Agora; 1973.
74. Institute of Medicine. Crossing the Quality Chasm: A New Health System for the 21st Century. Edited by National Academy of Sciences. 2001.
75. Epner DE, Baile WF: **Patient-centered care: the key to cultural competence**. *Annals of Oncology* 2012, **23** Suppl 3: 33-42.
76. Dimaggio P, Garip F: **Network effects and social inequality**. *Annual Review of Sociology* 2012, **38**:93-118.
77. Valente TV: *Social Networks and Health. Models, Methods, and Applications*. Oxford: Oxford University Press; 2010.
78. Chambers D, Wilson P, Thompson C, Harden M: **Social network analysis in healthcare settings: A systematic scoping review**. *PloS one* 2012, **7**.
79. Deas D, Pisano ED, Mainous AG, Johnson NG, Singleton MH, Gordon L *et al.*: **Improving diversity through strategic planning: A 10-year (2002-2012) experience at the Medical University of South Carolina**. *Academic Medicine* 2012, **87**: 1548-1555.
80. Lorant V, Bhopal R: **Comparing policies to tackle ethnic inequalities in health: Belgium 1 Scotland 4.** *European Journal of Public Health* 2010, **21**: 235-240.
81. Ingleby D. Memorandum of Understanding. For the implementation of a European Concerted Research Action designated as COST Action IS1103 ADAPTING EUROPEAN HEALTH SYSTEMS TO DIVERSITY (ADAPT). Edited by Ingleby D. 2011. Brussels, COST Network.
82. Mladovsky P, Ingleby D, McKee M, Rechel B: **Good practices in migrant health: The European experience.** *Clinical Medicine, Journal of the Royal College of Physicians of London* 2012, **12**: 248-252.
83. Garran AM, Werkmeister Rozas L: **Cultural Competence Revisited.** *Journal of Ethnic and Cultural Diversity in Social Work* 2013, **22**: 97-111.
84. Schiff T, Rieth K: Projects in medical education: "**Social Justice in Medicine" a rationale for an elective program as part of the medical education curriculum at John A. Burns School of Medicine.** *Hawai'i journal of medicine & public health : a journal of Asia Pacific Medicine & Public Health* 2012, **71**: 64-67.
85. Clingerman E: Social justice: **A framework for culturally competent care.** *Journal of Transcultural Nursing* 2011, **22**: 334-341.
86. Gaston GB, Alleyne-Green B: **The impact of African Americans' beliefs about HIV medical care on treatment adherence: A systematic review and recommendations for interventions**. *AIDS and Behavior* 2013, **17**: 31-40.
87. Department of Health. Delivering race equality in mental health care. An action plan for reform inside and outside services. 2005. London, Department of Health.
88. Brown N: **History, Law, and Policy as a Foundation for Health Care Delivery for Australian Indigenous Children**. *Pediatric Clinics of North America* 2009, **56**: 1561-1576.

89. Auger A: **Moving toward reconciliation in indigenous child welfare**. *Child Welfare* 2012, **91**: 31-45.
90. Fédération des Maisons Médicales et des collectifs de santé francophones. Charte des Maisons Médicales. 2013.
91. Emanuel E, Tanden N, Altman S, Armstrong S, Berwick D, De Brantes F *et al.*: **A systemic approach to containing health care spending.** *New England Journal of Medicine* 2012, **367**: 949-954.
92. Romero-Ortuño R: **Access to health care for illegal immigrants in the EU: Should we be concerned?** *European Journal of Health Law* 2004, **11**: 245-272.
93. Gesme DH, Wiseman M: R**educe risks to patients in your practice**. *Journal of Oncology Practice* 2012, **8**: e11-e13.
94. Sorensen AV, Bernard SL: **Strategies for safe medication use in ambulatory care settings in the United States**. *Journal of Patient Safety* 2009, **5**: 160-167.
95. Betancourt JR, Green AR, Carrillo JE, Ananeh-Firempong II O: Defining cultural competence: **A practical framework for addressing racial/ethnic disparities in health and health care**. *Public Health Reports* 2003, **118**: 293-302.
96. Cross T, Bazron B, Dennis K, Isaacs MR. Towards a culturally competent system of care. Edited by CASSP. 1989. Georgetown University Child Development Center.

APPENDIX

Questionnaire of the COMETH study

Madame, Mademoiselle, Monsieur,

Le questionnaire « Enquête sur les relations sociales des prestataires de soins » vous a été distribué dans le cadre du projet de recherche COMETH (COMpetences in EThnicity and Health). COMETH poursuit trois objectifs :

- Décrire les relations sociales entre les individus dans un contexte professionnel
- Décrire les relations sociales entre les institutions ou services de soins
- Mettre en lien les relations sociales entre les individus et les pratiques de soins

La finalité est de comprendre comment des pratiques de soins peuvent se transmettre entre des collègues ou entre des services de soins. Concrètement, COMETH espère contribuer à l'amélioration de la formation continue et à la valorisation des ressources des prestataires de soins. COMETH aspire également à participer au développement positif et/ou au renforcement des relations sociales entre les différents acteurs engagés dans la prise en charge des patients.

Comme pratiques de soins, nous avons choisi des pratiques de soins qui peuvent être partagées par tous les professionnels travaillant dans un même service de soins. C'est pourquoi nous nous intéressons aux pratiques de soins interculturels à destination des populations migrantes. Par population migrante, nous entendons les personnes issues des premières, deuxièmes et troisièmes générations de migrants mais également les migrants sans papiers ou en séjour précaire, les demandeurs d'asile, les réfugiés, les minorités ethniques, culturelles et religieuses.

Le succès de COMETH dépend de votre participation. Pour collecter les informations sur les relations sociales, nous utilisons une méthode particulière d'analyse. Chaque participant doit cocher ses relations avec ses collègues à l'aide de la liste du personnel employé dans son service. Chaque réponse est convertie en donnée numérique anonyme par un logiciel de lecture optique. Toutes les données collectées sont confidentielles et réservées à l'usage exclusif des chercheurs du projet COMETH. Cette étude a été soumise à l'approbation de la Commission de Protection de la Vie Privée et du Comité d'Ethique de l'Université catholique de Louvain.

Pour vous remercier de votre participation, un concours est organisé entre les unités de soins participantes. L'unité de soins avec le taux de participation et de remplissage le plus élevé recevra un cadeau gastronomique festif. Il importe donc que chacun des membres de l'équipe participe afin que tous bénéficient de la récompense. Nous vous communiquerons les résultats de COMETH en réunion d'équipe et proposons un feedback individuel aux personnes intéressées. Si vous souhaitez de plus amples informations ou nous faire part de vos remarques, n'hésitez pas à nous contacter par email : marie.dauvrin@uclouvain.be ou par téléphone 02/764.34.65.

En vous remerciant sincèrement pour votre participation, nous vous prions d'accepter l'expression de nos sentiments les meilleurs,

Marie Dauvrin Professeur Vincent Lorant

PROJET COMETH : Enquête sur les relations sociales chez les prestataires de soins

---

Pour chaque question, répondez en mettant une croix dans la case correspondant à votre réponse. Utilisez un bic à encre noire ou bleue. Merci d'avance pour votre participation.

---

1. Quelques questions sur vous-même

1. Vous êtes :

Un homme ☐
Une femme ☐

2. Votre âge :

Moins de 20 ans ☐
Entre 20 et 29 ans ☐
Entre 30 et 39 ans ☐
Entre 40 et 49 ans ☐
Entre 50 et 59 ans ☐
Entre 60 et 64 ans ☐
Plus de 65 ans ☐

3. Avez-vous la nationalité belge ?

Oui ☐
Non, spécifiez : ☐

____

4. Dans quel pays avez-vous passé la plus grande partie de votre enfance et adolescence? (avant vos 18 ans)

Belgique ☐
Autres, spécifiez : ____ ☐

5. Dans la liste ci-dessous, veuillez cocher la (les) langue(s) que vous parlez couramment (plusieurs réponses possibles):

Anglais ☐
Arabe ☐
Espagnol ☐
Français ☐
Italien ☐
Lingala ☐
Néerlandais ☐
Turc ☐
Autres, précisez : ____ ☐

6. Dans la liste ci-dessous, veuillez cocher la(les) langue(s) que vous parliez à la maison <u>avec vos parents quand vous étiez enfant </u>(plusieurs réponses possibles) :

Anglais ☐
Arabe ☐
Espagnol ☐
Français ☐
Italien ☐
Lingala ☐

Néerlandais ☐
Turc ☐
Autres, précisez : ___________________________________ ☐

7. Veuillez cocher la profession pour laquelle vous êtes actuellement engagé dans ce service

Aide-soignant (e) ☐
Assistant (e) social (e) ☐
Infirmier(e), si spécialisé (e), précisez la spécialisation: _____________ ☐
Médecin, si spécialiste, précisez la spécialisation : ________________ ⍰ ☐
Paramédical(e), précisez la profession : __________________________ ☐
Autres, précisez : ____ ☐
(Exemples : accueillant (e), bénévole, responsable des tâches logistiques, secrétaire,…)

8. Depuis combien de temps exercez-vous votre <u>profession actuelle</u> ?

Moins d'un an ☐
Moins de 5 ans ☐
Entre 5 et 10 ans ☐
Plus de 10 ans ☐
Plus de 20 ans ☐

9. Quel est votre temps de travail ?

Temps plein ☐
Temps partiel, précisez le % : __________________________________ ☐

10. Avez-vous une fonction particulière dans votre service / institution de soins ? (Exemples : chef de service, référent étudiant)

Oui, spécifiez : ____ ☐
Non ☐

11. Avez-vous travaillé en tant que professionnel de la santé dans un pays autre que la Belgique, pendant 6 mois ou plus?

Oui, quel(s) pays ____ ☐
Non ☐

12. Avez-vous reçu une formation spécifique concernant la prise en charge de patients venant d'autres cultures ? (ex. colloques, séminaires, cours, stages).

Je n'ai jamais eu de formation spécifique ☐
Durant vos études ☐
Au cours de votre carrière professionnelle ☐
A titre personnel ☐
Autre, précisez : ☐

13. Avez-vous des contacts réguliers (min. une fois par jour) avec des patients d'origine étrangère dans le cadre de vos activités professionnelles ?

Oui ☐
Non ☐

14. A votre avis, quel est le pourcentage des patients migrants accueilli dans votre service ? (Ce chiffre est basé sur votre perception personnelle, pas sur les chiffres exacts).

____%

2. Quelques questions sur votre travail

Dans les propositions suivantes, nous vous donnons deux possibilités d'attitudes face à une situation dans les soins de santé. Veuillez cocher le numéro correspondant à votre opinion (une seule réponse par proposition).

A Quand les valeurs et les coutumes des migrants diffèrent de celles du pays d'accueil :

[1] Les institutions de soins du pays d'accueil doivent s'adapter aux valeurs et coutumes des migrants		[2] Les migrants doivent s'adapter aux valeurs et coutumes des institutions de soins de leur pays d'accueil
Je suis tout à fait d'accord	*Indécis*	*Je suis tout à fait d'accord*

1	2	3	4	5	6	7
☐	☐	☐	☐	☐	☐	☐

B Lorsque le patient ne parle pas la (les) langue (s) officielle(s) du pays:

[1] Le soignant doit toujours mettre un interprète professionnel à disposition du patient		[2] C'est la responsabilité du patient de trouver un interprète professionnel
Je suis tout à fait d'accord	*Indécis*	*Je suis tout à fait d'accord*

1	2	3	4	5	6	7
☐	☐	☐	☐	☐	☐	☐

C Lorsque le patient manifeste une préférence à être soigné par un soignant homme ou un soignant femme :

[1] Les hôpitaux doivent permettre à tout patient qui en fait la demande de choisir le sexe de son prestataire de soins		[2] Les patients doivent accepter d'être pris en charge par le prestataire de soins fourni par l'hôpital, quel que soit son sexe
Je suis tout à fait d'accord	*Indécis*	*Je suis tout à fait d'accord*

1	2	3	4	5	6	7
☐	☐	☐	☐	☐	☐	☐

(Suite du questionnaire, version modifiée pour des raisons de publication)

D Lorsque le patient ne sait pas lire la (les) langue (s) officielle(s) du pays :

[1] Les hôpitaux doivent fournir des informations écrites dans la langue du patient

[2] Les patients doivent s’arranger pour comprendre les informations écrites remises par l’hôpital

Je suis tout à fait d’accord			*Indécis*			*Je suis tout à fait d’accord*
1	2	3	4	5	6	7
☐	☐	☐	☐	☐	☐	☐

E Lorsque les représentations de la santé du patient s’opposent aux recommandations du prestataire de soins :

[1] Le prestataire de soins doit s’adapter aux représentations du patient concernant sa maladie et son traitement

[2] Le patient doit se fier aux explications et aux recommandations du prestataire de soins

Je suis tout à fait d’accord			*Indécis*			*Je suis tout à fait d’accord*
1	2	3	4	5	6	7
☐	☐	☐	☐	☐	☐	☐

3. Quelques situations de prise en charge

A) Indiquez à quelle fréquence vous rencontrez chacune des situations proposées sur l'échelle allant de 1 (rare) à 5 (extrêmement fréquent)

	Rare				Extrêmement fréquent
	1	2	3	4	5
1. Le patient ne connait pas la langue locale (française ou néerlandaise)	☐	☐	☐	☐	☐
2. Je dois utiliser les amis ou des membres de la famille comme interprètes	☐	☐	☐	☐	☐
3. Je manque d'outils et/ou de ressources pour communiquer adéquatement avec le patient	☐	☐	☐	☐	☐
4. Le patient manque de connaissance sur le fonctionnement du système de santé belge	☐	☐	☐	☐	☐
5. Le patient a des demandes particulières à cause de ses convictions religieuses ou de traditions culturelles	☐	☐	☐	☐	☐
6. Je dois interpréter des symptômes / des plaintes/ des demandes qui sont exprimées différemment par le patient à cause de sa culture	☐	☐	☐	☐	☐
7. La famille du patient intervient dans la prise en charge du patient	☐	☐	☐	☐	☐
8. Le patient ne comprend pas son problème de santé	☐	☐	☐	☐	☐
9. Je manque de connaissances sur les problèmes de santé spécifiques des patients migrants	☐	☐	☐	☐	☐
10. Je manque de connaissances par rapport aux différentes cultures, ethnies ou religions des patients	☐	☐	☐	☐	☐

Suite du questionnaire (ceci est une forme modifiée pour des raisons de publication)

A) Indiquez à quelle fréquence vous rencontrez chacune des situations proposées sur l'échelle allant de 1 (rare) à 5 (extrêmement fréquent) (suite)

	1	2	3	4	5
11. Le patient migrant a un statut socioéconomique plus défavorable que les autres patients non-migrants	☐	☐	☐	☐	☐
12. Le patient est en séjour illégal ou précaire du patient sur le territoire belge	☐	☐	☐	☐	☐
13. Les procédures administratives et/ou sociales sont plus longues pour les patients migrants	☐	☐	☐	☐	☐
14. Je dois transférer le patient migrant vers d'autres services	☐	☐	☐	☐	☐
15. J'accompagne un patient qui fait la grève de la faim	☐	☐	☐	☐	☐
16. Les patients migrants sont agressifs verbalement et/ou physiquement	☐	☐	☐	☐	☐
17. Le patient refuse de se faire soigner sur base d'arguments religieux ou culturels	☐	☐	☐	☐	☐
18. Le patient refuse de se faire soigner sur base du sexe du prestataire de soins	☐	☐	☐	☐	☐
19. Je suis confronté à des prestataires de soins qui ont des attitudes non adaptées voire irrespectueuses par rapport aux patients migrants	☐	☐	☐	☐	☐
20. Les lieux de soins ne sont pas adaptés aux besoins et aux attentes des patients migrants	☐	☐	☐	☐	☐

B) Entourez les numéros des 3 situations ci-dessus qui sont les plus difficiles à gérer dans votre propre pratique

4. Vos compétences

A quel point vous sentez compétent(e) lorsque vous vous retrouvez dans les situations de prise en charge suivantes ?

Veuillez indiquer votre réponse sur l'échelle allant de «"Pas du tout compétent" (1) à "Tout à fait compétent" (5). Si vous n'êtes pas concerné(e) par la proposition, indiquez-le dans la case *« Ne s'applique pas »*

Par « prise en charge », nous entendons toutes les actions posées par le prestataire lors qu'il est en contact avec le patient (diagnostic, démarches administratives, anamnèse, soins, traitement, entretien social, accueil à l'admission…).

	Pas du tout	Peu	Moyennement	Assez	Tout à fait	Ne s'applique
• S'assurer que mon patient illettré comprenne sa prise en charge (y compris sur le plan administratif et social)	☐	☐	☐	☐	☐	☐
• Expliquer le refus de ma prise en charge au patient qui en fait la demande (y compris sur le plan administratif et social)	☐	☐	☐	☐	☐	☐
• Combiner ma prise en charge du patient avec des thérapies alternatives si le patient le demande (guérisseur, utilisation de plantes traditionnelles)	☐	☐	☐	☐	☐	☐
• Discuter avec mon patient de ses préférences et contraintes religieuses et/ou culturelles concernant sa prise en charge	☐	☐	☐	☐	☐	☐
• Adapter ma prise en charge (au sens large : diagnostic, soins, traitements) en fonction de certains rites religieux et culturels	☐	☐	☐	☐	☐	☐
• Poser des questions et donner des informations au mari d'une patiente, si celle-ci le demande	☐	☐	☐	☐	☐	☐
• S'occuper d'un patient qui croit que sa maladie est causée par des forces surnaturelles	☐	☐	☐	☐	☐	☐
• Prendre en charge des patients insistant pour utiliser ou rechercher des guérisseurs ou des thérapies alternatives	☐	☐	☐	☐	☐	☐

Suite du questionnaire
(ceci est une forme modifiée pour des raisons de publication)

	Pas du tout	Peu	Moyennement	Assez	Tout à fait	Ne s'applique pas
Vos compétences (suite)						
• Poser des questions sur le parcours migratoire et les expériences traumatiques éventuelles d'un demandeur d'asile	☐	☐	☐	☐	☐	☐
• Prendre en charge des patients ayant une maitrise limitée de votre propre langue	☐	☐	☐	☐	☐	☐
• Travailler efficacement avec un interprète professionnel	☐	☐	☐	☐	☐	☐
• Orienter un patient migrant sans papiers vers les services médicaux et sociaux appropriés	☐	☐	☐	☐	☐	☐
• Effectuer un examen physique ou des soins en respectant des particularités culturelles ou religieuses (pudeur, port du voile, gestes)	☐	☐	☐	☐	☐	☐
• Gérer un conflit entre un patient et un de mes collègues	☐	☐	☐	☐	☐	☐
• Gérer un groupe familial accompagnant ou rendant visite au patient	☐	☐	☐	☐	☐	☐

5. Vos relations sociales sur votre lieu de travail

Ci-dessous se trouve la liste du personnel employé dans votre service. Lors du traitement des données, tous les noms seront remplacés par des numéros afin de garantir l'anonymat des réponses. L'accès aux données nominatives est strictement réservé au chercheur principal.
Dans cette liste, veuillez cocher :

A. Votre nom dans la colonne à gauche (sans cette donnée, le questionnaire est inutilisable).
B. Veuillez ensuite cocher le nom de toutes les personnes dans les cases de la partie de droite :
- A qui vous demandez de l'aide pour résoudre des problèmes liés à votre travail
- A qui vous demandez conseil pour des questions liées à la prise en charge des patients
- Avec qui vous partagez des moments de détente sur votre lieu de travail

Plusieurs réponses sont possibles

Exemple : questionnaire rempli par M. Dauvrin

		Aide pour résoudre des problèmes	Conseil pour la prise en charge des patients	Moments de détente
☒	Marie Dauvrin	☐	☐	☐
☐	Jean Desmet	☒	☐	☐
☐	Simone Dupont	☐	☒	☒

Veuillez indiquer vos réponses au moyen d'une croix dans la case correspondante.
N'oubliez pas de cocher votre nom dans la colonne de gauche.

Moi		Mes relations		
		Aide pour résoudre des problèmes	Conseil pour la prise en charge des patients	Moments de détente
☐		☐	☐	☐
☐		☐	☐	☐

Si nécessaire, vous pouvez ajouter des noms de personne non-reprises dans la liste ci-dessus dans les cases vides.