

Caring for all?

Biases, ethnicity, and mental health care

The case of general practice

Camille Duveau

Décembre 2023

Thèse présentée en vue de l'obtention du grade de docteur en
sciences de la santé publique

Secteur des sciences de la santé



« La vérité d'hier est morte, celle de demain est encore à bâtir. Aucune synthèse valable n'est entrevue, et chacun d'entre nous ne détient qu'une parcelle de vérité. »

— Antoine de Saint-Exupéry

Remerciements / Acknowledgements

L'écriture de ma thèse a été à la fois un travail d'équipe et une aventure personnelle. J'ai eu la chance d'être merveilleusement bien entourée tout au long de ce parcours doctoral, et ce travail n'aurait pas pu aboutir sans le soutien essentiel de certaines personnes, que je tiens à mettre à l'honneur à présent.

Je tiens tout d'abord à remercier mon promoteur de thèse, Vincent Lorant, pour m'avoir accordé sa confiance en m'impliquant dans le projet REMEDI. Merci de m'avoir guidée tout au long de ces années, pour ta disponibilité, même outre-Atlantique parfois, et pour avoir partagé tes connaissances et ton expertise lors de nos réunions. Merci de m'avoir encouragée à aller présenter mes résultats à l'étranger, et de m'avoir appris à m'affirmer et à argumenter mes idées au fil des ans.

La rédaction d'une thèse est constituée de plusieurs étapes charnières au cours desquelles j'ai eu la chance d'être conseillée et épaulée par les membres de mon comité d'accompagnement. Sandy, merci d'avoir présidé ce jury de thèse, merci pour ton professionnalisme et la qualité de tes notes et rapports. Merci également pour tes bons conseils et pour tes mots rassurants. Brice, Marie, Stéphanie, merci pour votre bienveillance et votre humanité à mon égard. Merci de m'avoir challengée hors de ma zone de confort parfois, vers des thématiques que je ne maîtrisais pas du tout. Aujourd'hui, cela constitue la richesse de ce travail d'équipe. Thank you to Allan and Sophie for agreeing to join the final stages of this thesis. Thank you for your careful reading and your fresh and insightful perspective on this work. Merci aussi à William d'avoir accepté d'être membre externe lors de mon comité de confirmation. Merci pour ta bienveillance et ta lecture critique et constructive de mes travaux.

Un grand merci à toute l'équipe administrative de la faculté, ainsi qu'à l'équipe du SMCS et à toutes les personnes qui ont consacré de leur temps pour m'aider à certains moments. Merci pour votre support technique et administratif qui ont également contribué à l'aboutissement de ce travail.

Mes remerciements s'adressent aussi aux membres du comité de pilotage du projet

REMEDI pour leur implication, leur engagement et leurs commentaires enrichissants lors des réunions de suivi.

Merci aux médecins généralistes en fonction et en formation qui ont répondu aux enquêtes en ligne et ont pris le temps de participer aux interviews et focus groups dans le cadre du projet REMEDI. Merci aux collègues de BELSPO pour leur confiance tout au long de la réalisation de ce projet, ainsi que pour leur soutien à chaque étape de celui-ci.

J'ai également eu la chance d'être accompagnée, en présentiel ou en virtuel, par des collègues exceptionnels ! Un immense merci à mes collègues de m'avoir encouragée, soutenue, aidée, consolée parfois et d'avoir célébré avec moi chaque petite victoire tout au long de ce parcours. Merci PO, Pierre, Nora, sans le savoir, vous avez été de véritables mentors pour moi. Merci PO pour ces nombreuses heures de covoiturage partagées qui ont été des moments de réflexion enrichissants, souvent à refaire le monde, mais aussi l'IRSS parfois. Pierre, merci pour ton accompagnement serein depuis le début, et pour tes conseils pertinents qui m'ont fait gagner énormément de temps. Nora, merci pour ton soutien infailible, pour tes mots bienveillants et rassurants, et ta bonne humeur qui avait le don d'éclairer mes journées les plus stressantes.

À Madeleine, Mégane, et Hélène, merci pour vos petites attentions, vos post-its, vos chocolats, mais surtout pour votre soutien inconditionnel et votre écoute, merci d'avoir toujours été présentes pendant ces années. Aan Camille, mijn trouwe onderzoekspartner en nu mijn vriendin, ik heb het enorm getroffen om dit project samen met jou uit te voeren! Je weet al alles, maar je moet weten dat deze drie jaar niet hetzelfde zouden zijn geweest zonder jou! Bedankt voor je vriendelijkheid en geduld, voor deze samenwerking en voor de leuke avonden die we hebben doorgebracht.

Dank ook aan mijn collega's in Gent, Katrijn, Melissa, Piet en Stéphanie, voor de vlotte samenwerking in het REMEDI-project. Bedankt voor jullie warme ontvangst tijdens mijn korte verblijf in Gent, en ook tijdens de Hedera mid-week met jullie onderzoeksteam.

Merci à tous mes autres collègues avec qui j'ai pu échanger de courtes et longues discussions, et qui contribuaient à créer une atmosphère chaleureuse et agréable au bureau. Merci à Alexia, Carole, Catherine, Cécilia, Charlotte, Delphine, Lisa, Luigi, Margot, Séverine, Pierre et Pablo ! Ce fût un plaisir de partager ces lunches, ces écoles doctorales, ces conférences, ces team building, ces soirées, ces CORSCIRss élargis et ces conversations avec vous ! Merci à vous pour ces bons moments et bons souvenirs.

Je souhaiterais également remercier tous mes amis, en particulier Gwen, Elise, Marie, Julie, Laura, Johanne, Sarah, Marine, Christophe, Alexandre, Laura, Tanguy et Robin. Merci à vous d'avoir été si présents pendant ces dernières années de près ou de loin. Merci Gwen, d'abord pour ton aide à la réalisation de la couverture et des illustrations de cette thèse mais aussi pour tes mots toujours bienveillants, tes encouragements, et notre amitié qui traverse le temps. Merci Elise pour les petits déjeuners, pour ces journées de télétravail à imaginer notre avenir, merci pour ta sagesse et ton calme qui arrive toujours à m'apaiser dans les moments de stress. Merci Johanne pour nos nombreuses courses à pied au cinquantenaire qui me vidaient la tête pour mieux repartir, on peut dire qu'on la connaît par cœur cette petite piste ! Merci Marie pour tes attentions et tes petits mots de soutien qui m'encourageaient même à distance, surtout ces derniers mois. Merci à tous mes amis et amies que je n'ai pas cités mais qui se reconnaîtront, merci pour votre support moral, vos manifestations, et votre énergie positive qui me permettaient de déconnecter parfois mais aussi de continuer d'avancer.

Merci aussi à ma famille, en particulier à mes parents de m'avoir toujours soutenue, encouragée, réconfortée et cru en moi. Papa, Maman, sans vous, je ne serais pas là où je suis aujourd'hui, alors merci. Merci pour vos attentions, vos visites de soutien, vos messages, vos coups de fil, vos « allez, ça va aller, n'oublie pas de respirer » avant une présentation, vous saviez à quel point ça me stressait ! Merci aussi à mon frère pour son soutien à sa façon, et merci d'être toujours là quand j'en ai besoin. Merci à ma belle-famille, Elena, Anne-Sophie, Vincent, Antoine, Henri, Juliette, Lucie, Camie, Fred, quelle chance j'ai de pouvoir compter sur vous et d'être si bien entourée.

Enfin, mes remerciements vont à mon compagnon, Victor. Merci d'avoir toujours cru en moi quand moi-même je n'y croyais pas parfois. Merci de m'avoir encouragée, rassurée, épaulée, remonté le moral et aussi d'avoir toujours trouvé les bons mots au bon moment. Merci de me faire rire au quotidien et de toujours rendre les moments difficiles plus légers. La vie est si douce avec toi.

Composition of the jury

Supervisor: Prof. Vincent Lorant, Université catholique de Louvain – Institut de Recherche Santé et Société

President of the jury: Prof. Sandy Tubeuf, Université catholique de Louvain – Institut de Recherche Santé et Société & Institute of Economic and Social Research

Support committee:

Dr. Marie Dauvrin, Université catholique de Louvain – Institut de Recherche Santé et Société

Prof. Stéphanie Demoulin, Université catholique de Louvain – Institut de Recherche en Sciences Psychologiques

Dr. Brice Lepière, Université catholique de Louvain – Institut de Recherche Santé et Société

External members:

Dr. Sophie Durieux-Paillard, Hôpitaux Universitaires Genève – Service de Médecine de Premier Recours

Prof. Emeritus Allan Krasnik, University of Copenhagen – Department of Public Health

Table of Contents

LIST OF ABBREVIATIONS	10
LIST OF TABLES.....	12
LIST OF FIGURES.....	13
ABSTRACT	14
CHAPTER 1 – MIGRATION AND ETHNICITY: CONCEPTS AND CHALLENGES	17
1.1. DEFINITIONS	17
1.2. CONTEXTUALISATION AND HISTORY.....	27
1.3. REASONS FOR MIGRATION.....	31
CHAPTER 2 – ETHNICITY AND MENTAL HEALTH.....	35
2.1. DEFINITIONS	35
2.2. PREVALENCE AND INCIDENCE	36
2.3. HOSPITALISATIONS	38
2.4. COMPULSORY ADMISSIONS	39
2.5. SUICIDE RATE	40
2.6. PATIENT SATISFACTION.....	41
2.7. MEDICAL DECISIONS	41
2.8. GENERAL PRACTITIONERS’ ROLE IN MENTAL HEALTHCARE	47
CHAPTER 3 – EXPLAINING AND ADDRESSING ETHNIC DISPARITIES	53
3.1. KEY DETERMINANTS OF ETHNIC DISPARITIES IN MENTAL HEALTH(CARE)	53
3.1.1. <i>Legal status</i>	53
3.1.2. <i>Socioeconomic status</i>	54
3.1.3. <i>Migration</i>	56
3.1.4. <i>Discrimination, prejudices and stereotypes</i>	59
3.1.5. <i>Mental healthcare</i>	61
3.2. MODERATING FACTORS OF ETHNIC DISPARITIES IN PRIMARY MENTAL HEALTHCARE	63
3.2.1. <i>Explicit and implicit bias</i>	63
3.2.2. <i>Racial and ethnic concordance</i>	71
3.2.3. <i>Communication, trust and relationship</i>	75
3.2.4. <i>Cultural competence</i>	80
3.2.5. <i>Humanization</i>	86
KNOWLEDGE GAP AND RESEARCH QUESTIONS.....	94
METHODS	98

CHAPTER 4 – MENTAL HEALTH AMONG PEOPLE WITH A MIGRATION BACKGROUND IN BELGIUM OVER THE PAST 20 YEARS: HOW HAS THE SITUATION EVOLVED?..... 103

<i>Abstract</i>	<i>104</i>
<i>Contributions to the literature.....</i>	<i>105</i>
<i>Background.....</i>	<i>105</i>
<i>Methods.....</i>	<i>107</i>
<i>Results.....</i>	<i>110</i>
<i>Discussion</i>	<i>117</i>
<i>Conclusion.....</i>	<i>120</i>

CHAPTER 5 – IMPLICIT AND EXPLICIT BIASES IN MULTICULTURAL PRIMARY CARE: THE CASE OF TRAINEE GENERAL PRACTITIONERS..... 123

<i>Abstract</i>	<i>124</i>
<i>Introduction</i>	<i>125</i>
<i>Methods.....</i>	<i>126</i>
<i>Results.....</i>	<i>129</i>
<i>Discussion</i>	<i>137</i>
<i>Conclusion.....</i>	<i>140</i>

CHAPTER 6 – INDIVIDUAL, INTERPERSONAL, AND ORGANISATIONAL FACTORS ASSOCIATED WITH DISCRIMINATION IN MEDICAL DECISIONS AFFECTING PEOPLE WITH A MIGRATION BACKGROUND WITH MENTAL HEALTH PROBLEMS: THE CASE OF GENERAL PRACTICE 143

<i>Abstract</i>	<i>144</i>
<i>Introduction</i>	<i>145</i>
<i>Methods.....</i>	<i>147</i>
<i>Results.....</i>	<i>152</i>
<i>Discussion</i>	<i>158</i>
<i>Conclusion.....</i>	<i>162</i>

CHAPTER 7 – UNINTENTIONAL DISCRIMINATION AGAINST PATIENTS WITH A MIGRATION BACKGROUND BY GENERAL PRACTITIONERS IN MENTAL HEALTH MANAGEMENT: AN EXPERIMENTAL STUDY 165

<i>Abstract</i>	<i>166</i>
<i>Introduction</i>	<i>167</i>
<i>Methods.....</i>	<i>168</i>
<i>Results.....</i>	<i>173</i>
<i>Discussion</i>	<i>178</i>
<i>Conclusion.....</i>	<i>181</i>

CHAPTER 8 – DISCUSSION	183
8.1. SUMMARY AND INTEGRATED DISCUSSION OF THE MAIN FINDINGS	183
8.2. LIMITATIONS OF THE THESIS.....	199
8.3. FUTURE PERSPECTIVES AND RECOMMENDATIONS.....	203
<i>Perspectives</i>	203
<i>Recommendations</i>	205
8.4. CONCLUSION.....	212
PUBLICATIONS & MEDIA	214
PUBLICATIONS IN PEER-REVIEWED JOURNALS	214
CONFERENCE ABSTRACTS	215
PODCASTS.....	216
NEWSPAPERS.....	216
REPORT	217
APPENDICES	218
APPENDIX 1	218
APPENDIX 2	219
APPENDIX 3	220
APPENDIX 4	221
APPENDIX 5	222
APPENDIX 6	223
APPENDIX 7	225
APPENDIX 8	226
REFERENCES	227

List of abbreviations

BELHEALTH: Belgian Health and Well-being Cohort

BELSPO: Belgian Science Policy Office

BHIS: Belgian Health Interview Survey

BZERA: Benzodiazepine Receptor Agonists

CI: Confidence Interval

EU: European Union

GDP: Gross Domestic Product

GDPR: General Data Protection Regulation

GLEM: Groupe Local d'Evaluation Médicale

GPs: General Practitioners

IAT: Implicit Association Test

INAMI/RIZIV: Institut National d'Assurance Maladie-Invalidité/ Rijksinstituut voor Ziekte- en Invaliditeitsverzekering

ISMR: Indirect Age-Standardised Mortality Rates

JCP: Joint Crisis Plan

LOK: Lokale Kwaliteitsgroep

MEM: Migrants and Ethnic Minorities

MI: Mental Illness

MIPEX: Migrant Policy Index Integration

NIMH: National Institute of Mental Health

OECD: Organisation for Economic Cooperation and Development

OR: Odds Ratio

PAD: Psychiatric Advance Directives

PTSD: Post-Traumatic Stress Disorder

REMEDI: REcommendations to patients with MEntal health problems and DIverse migration backgrounds

RR: Relative Risk

SDG: Sustainable Development Goals

UK: United Kingdom

UNHCR: United Nations High Commissioner for Refugees

US: United States

WHO: World Health Organisation

List of tables

TABLE 1 DIFFERENCES BETWEEN PATIENT-CENTRED CARE AND PERSON FOCUSED-CARE	87
TABLE 2 HUMANIZATION INTERVENTION: LIFE STORY SCENARIOS	93
TABLE 3 OVERVIEW OF THE GENERAL STRUCTURE OF THE THESIS, CHAPTERS, KNOWLEDGE GAPS, AND METHODOLOGY USED	100
TABLE 4 CHARACTERISTICS OF THE SAMPLE OVER THE YEARS, BELGIAN HEALTH INTERVIEW SURVEY FROM 1997 TO 2018	111
TABLE 5 EVOLUTION OF PSYCHOLOGICAL DISTRESS (GHQ-12 SCORE) IN FIVE ETHNIC GROUPS IN BELGIUM FROM 1997 TO 2018, WITH AVERAGE MARGINAL EFFECT CONTROLLED FOR AGE, SEX, AND EDUCATION	114
TABLE 6 LINEAR REGRESSION ESTIMATES* (B, CI95%) FOR FACTORS INFLUENCING PSYCHOLOGICAL DISTRESS (GHQ-12 SCORE) AMONG ADULTS AGED 15-65 SINCE 1997	116
TABLE 7 DEMOGRAPHIC CHARACTERISTICS, IMPLICIT BIAS, AND CULTURAL COMPETENCE SCORE OF PARTICIPANTS (N = 207)	130
TABLE 8 RELATIVE RESPONSIBILITY TO ADAPT OF MIGRANTS AND HEALTH PROFESSIONALS, AS PERCEIVED BY TRAINEE GPs (2021): % PER ITEM (N = 207)	134
TABLE 9 FACTORS ASSOCIATED WITH IMPLICIT ASSOCIATION TEST AND WITH THE HUDELSON SCORE: BETAS FROM THE LINEAR REGRESSION MODELS	135
TABLE 10 SOCIODEMOGRAPHIC DESCRIPTION OF THE GP RESPONDENTS ACCORDING TO THE PATIENT ETHNICITY IN THE VIDEO VIGNETTE AND STATISTICAL TEST ON THE RANDOM ALLOCATION OF THE VIDEO VIGNETTE ACCORDING TO THE PATIENT ETHNICITY, BELGIUM, N=797	153
TABLE 11 GPs' DIAGNOSTIC DECISIONS, TREATMENT, REFERRAL RECOMMENDATIONS, AND TIME SPENT ON THE VIGNETTE	155
TABLE 12 THE EFFECT OF GPs' INDIVIDUAL, INTERPERSONAL, AND ORGANISATIONAL FACTORS ON ETHNIC DIFFERENCES IN MENTAL HEALTH DIAGNOSIS, TREATMENT, AND REFERRAL RECOMMENDATIONS, ESTIMATED COEFFICIENT FROM AN ANOVA.....	156
TABLE 13 SOCIODEMOGRAPHIC DISTRIBUTION OF GENERAL PRACTITIONER RESPONDENTS, BELGIUM 2021 (N=797) AND STATISTICAL TESTS ON THE ALLOCATION OF ONE OF THE FOUR VIDEO VIGNETTES	173
TABLE 14 RESULTS OF THE TWO-WAY ANOVA AND MANOVA FOR DIAGNOSIS, TREATMENT, AND REFERRAL	176
TABLE 15 DIFFERENCE BETWEEN THE ACTUAL TIME (IN MINUTES) DEVOTED TO WATCH THE VIDEO AND READ THE INTRODUCTION BY GPs AND THE EXPECTED TIME REQUIRED TO IT	177

List of figures

FIGURE 1 INTERCONNECTED CONCEPTS RELATED TO MIGRATION, NATIONALITY, AND LEGAL STATUS.....	22
FIGURE 2 ESTIMATES OF INTERNATIONAL MIGRANTS NUMBERS BY SEX IN EUROPE, AT MID-YEAR, 1990-2020 (47).....	29
FIGURE 3 INTERNATIONAL MIGRANTS IN EU COUNTRIES, 1 JANUARY 2022 (% OF THE POPULATION) (46) .	30
FIGURE 4 REASONS FOR MIGRANTS TO STAY IN EUROPE IN 2021 (53)	32
FIGURE 5 A MODIFIED SOCIAL ECOLOGICAL MODEL OF MEDICAL DECISION-MAKING. ABBREVIATION: SES, SOCIOECONOMIC STATUS (174)	49
FIGURE 6 DIFFERENT EXPOSURES DURING THE LIFE COURSE ON THE HEALTH OF MIGRANTS (229).....	58
FIGURE 7 POLICY MEASURES REQUIRED TO TACKLE SOCIAL DETERMINANTS OF HEALTH FOR MIGRANTS AND ETHNIC MINORITIES (249)	60
FIGURE 8 CONCEPTUAL FRAMEWORK DISPLAYING KEY DETERMINANTS OF MENTAL HEALTH PATHWAYS THROUGH WHICH INEQUITABLE PRACTICES (UNINTENTIONAL DISCRIMINATION) CONTRIBUTE TO ETHNIC DISPARITIES	95
FIGURE 9 GENERAL STRUCTURE OF THE THESIS	96
FIGURE 10 PREVALENCE OF MENTAL ILLNESS (GHQ ≥ 4) BY ETHNIC GROUP AND BY YEAR	113
FIGURE 11 DISTRIBUTION OF IMPLICIT ASSOCIATIONS FOR FIRST NAMES ASSOCIATED WITH DIFFERENT ETHNIC GROUPS	132
FIGURE 12 PATIENTS PLAYED BY ACTORS IN THE VIDEO VIGNETTES IN THE SURVEY	148
FIGURE 13 FLOW CHART SHOWING PARTICIPATION IN THE SAMPLE PROCESS	151
FIGURE 14 BALANCED 2X2 FACTORIAL EXPERIMENTAL DESIGN AND DEPENDENT VARIABLES.....	169
FIGURE 15 FLOW CHART SHOWING PARTICIPATION IN THE SAMPLE PROCESS	170
FIGURE 16 CORRELATION BETWEEN IAT AND HUDELSON SCALE	220

ABSTRACT

European societies are ethnically diverse due to historical migration, cultural interactions, and globalisation, contributing to the rich identities within our communities. This trend is expected to intensify in the future due to factors such as increased global mobility, interconnectedness, climate changes, and evolving demographics, further enhancing the vibrant mosaic of ethnicities. Migrants and ethnic minorities (MEM) make up approximately 11% of the total population in the European Union. Research has shown that MEM have a higher level of stress, and a higher prevalence of anxiety and depression compared with the native population. Therefore, ethnicity and migration background are crucial determinants of mental health status and access to mental health care, which require further investigation. Reducing ethnic inequalities in mental health care remains a priority on the public health agenda around the world and in Europe. Alongside the socioeconomic factors which influence mental health status and access to mental health care services, ethnic minority and migrant populations are also more exposed to stigmatisation and discrimination by health care professionals, such as general practitioners (GPs). GPs, who are usually the first contact with the health care system, may sometimes unintentionally discriminate against their MEM patients. Given that GPs encounter a diverse and international population in their practice due to migration and cultural diversity in our globalised society, it is crucial to understand how implicit and explicit biases among GPs can lead to ethnic discrimination in the diagnosis, treatment, and referral of MEM. This thesis aims to investigate the mechanisms driving the implicit biases among GPs in consultations with patients with and without a migration background who have mental problems. The objective is to identify and empirically test effective interventions to reduce unintentional discrimination occurrence and to improve the quality of care for these patients.

More precisely, this thesis is structured as follows. The **first chapter** presents a general introduction of the concepts, related to migration and ethnicity. It also provides a broad overview of the history of migration in Europe, with a specific focus on Belgium. **Chapter 2** describes ethnic disparities encountered in mental health and mental healthcare, such as in diagnosis, treatment, and referral recommendations. This chapter also presents the role that GPs play in the realm of mental healthcare. The **third chapter** gives an overview of the factors that influence the occurrence of ethnic disparities, including socioeconomic status, discrimination, explicit and implicit biases, racial concordance, cultural competence, communication, relationship, and humanization in primary healthcare, which still need to be addressed in primary mental health research. In

Chapter 4, the evolution of mental health problems among five distinct ethnic groups in Belgium is presented, covering the period from 1997 to 2018. The **fifth chapter** investigates the extent of implicit bias and the willingness to adapt care to migrants, among trainee GPs. The **sixth chapter** assesses the influence of GPs' factors on ethnic differences in medical decision-making for a depressed migrant and a depressed non-migrant patient. **Chapter 7** aims to assess the influence of humanization intervention on reducing GPs' discriminatory decisions regarding migrant patients with depression. **Chapter 8** discusses, draws conclusions, and gives an overview of the recommendations to reduce ethnic inequalities in primary mental health care.

The data used for this thesis has been collected in the framework of the REMEDI project, funded by BELSPO (Belgian Science Policy) between April 2021 and March 2023 among GPs, trainee GPs, and relevant stakeholders. The project aimed to elaborate recommendations to improve the quality of care for migrant patients with mental health disorders in GPs' consultation. In total, 797 GPs took part in the online questionnaire, 39 GPs participated in an in-depth interview and the research team conducted 8 focus groups with GPs and 2 focus groups with stakeholders to discuss recommendations. Within the framework of this thesis, we mainly used the data from the online questionnaire.

The results suggest that a majority of GPs have implicit preferences for their ingroup over ethnic and migrant groups and that these biases are associated with ethnic disparities in medical decisions, such as a **lower assessment of symptom severity** in migrants or the **higher prevalence** of post-traumatic stress disorder (PTSD) diagnosis in migrants with mental health problems. The findings highlighted the need to **raise GPs' awareness** of their **implicit biases** and to implement **effective interventions** to reduce unintentional ethnic discrimination in mental health care. One possible interpretation of the results is that GPs may need to **undergo cultural competency** training to become more aware of their implicit biases and learn to provide equitable care to patients from different cultural backgrounds.



"Migration is not only for birds!"
(Krasnik & Agyemang 2022)

CHAPTER 1

ETHNICITY AND MIGRATION: CONCEPTS AND CHALLENGES

Chapter 1 – Migration and ethnicity: Concepts and challenges

If one aims to summarise the existing knowledge regarding the relationship between ethnicity and health on a global scale across various countries and continents, they are likely to encounter a sense of frustration. This stems from the challenge of identifying common grounds not only in the concepts employed but also in the way they are implemented in research. This domain of research is consequently characterised by two features: 1) the multidimensionality of the concepts; and 2) the heterogeneous approaches taken in their implementation in health research. This chapter addresses that issue.

Firstly, it provides **definitions** for **key concepts** used throughout the manuscript, including ethnicity, migration, ethnic minorities, migrants, and others. By providing these definitions, the intention is to bring clarity to the understanding of these concepts within the context of the thesis and explore their interconnectedness. Secondly, this chapter seeks to provide a brief overview of the **history of migration in Europe**, and particularly in Belgium, which served as the research focus for this dissertation. Finally, this chapter will specify the type of migrant and ethnic minority population referred to in the following chapters of the manuscript.

It is noteworthy to acknowledge that the chapter does not claim to provide an exhaustive account of all possible definitions, but rather offers a focused exploration within the context of the thesis. Additional resources are at one's disposal to delve more profoundly into these intricate concepts (1, 2).

1.1. Definitions

Migration, migrants, ethnic minorities, racial groups, refugees, asylum-seekers, undocumented migrants, religious groups, citizens, nationality, culture are **complex** and **multifaceted** concepts that play significant roles in shaping the diversity of societies worldwide. While there is no universal definition for these terms, international organisations and researchers have provided recommendations to standardise the analysis and counting of these groups, such as the United Nations Department of Economic and Social Affairs' 1998 *Recommendations on Statistics of International Migration* (3). Depending on the field being discussed, including legal, administrative, research and statistical area, the definitions may vary slightly (4).

Migrants and migration

Migrant is an umbrella term not defined universally, but it reflects the common lay understanding of individuals who have left their country of birth and now reside in another country, either temporarily or permanently, for a variety of reasons. Also called immigrants, they may be categorised based on their legal status, such as refugees, asylum seekers, or economic migrants (5-7). Literature works have also categorised migrants according to their generation, namely as first, second and third-generation migrants (7). Strictly, **second-generation migrants** have not personally undertaken a migration even though they are sometimes referred to as individuals with a migration background (7). First, second and third-generation migrants are more sociological concepts that are not defined in legislation, but are terms used to capture the inter-generational process of migration (8). The **first-generation migrants** are born outside the country of residence, while second-generation migrants were born in and is residing in a country that at least one parent previously entered as a first-generation migrant (9).

Migration refers to the movement of individuals or groups from one location to another, which may involve crossing national borders. It can be voluntary or forced and can encompass various motivations, such as economic opportunities, education, seeking refuge from conflicts or persecution, or joining family members (4, 5). Migration encompasses more than simply leaving social networks behind; it involves undergoing a process of social change that includes experiencing initial feelings of loss, dislocation, alienation and isolation, which ultimately lead to processes of acculturation (10). Acculturation will be further explained in the Section “Culture and cultural identity”.

Refugees, asylum seekers and economic migrants

United Nations High Commissioner for Refugees (UNHCR) defined **refugees** as individuals who can legally remain within the host country because they have obtained legal authorisation to stay and to access certain services, due to fleeing persecution, conflict, violence, or racism in their country of origin (11). On the other hand, **asylum seekers** are individuals who have applied for asylum in another country and are currently awaiting a decision on whether they have been granted refugee status (11). While **economic migrants** are defined as persons who leave their country of origin for economic reasons, in order to seek material improvements in their livelihood (7). Asylum seekers, refugees and economic migrants contribute significantly to European societies in various ways (12, 13). While initial studies have indicated that providing services like language training, education for children, and housing to asylum seekers and refugees may result in

short-term costs, their long-term impact on the host country's economy is notably positive (12). Over time, asylum seekers and refugees often become contributors, paying income taxes, making payments into welfare systems (e.g. pension contributions), and helping to address labour market shortages (12). These contributions significantly contribute to economic growth of European societies.

Economic migrants typically arrive in host countries with the explicit aim of working and contributing to the economy. They have an immediate and favourable effect on the labour market, resulting in higher Gross Domestic Product (GDP) per capita for recipient countries. Additionally, they often demonstrate a strong propensity for entrepreneurship, which can lead to job creation and economic expansion (12, 13). Notably, migrants accounted for 70% of the increase in the European workforce between 2004 and 2014 (14). Moreover, many economic migrants send a portion of their earnings back to their home countries in the form of remittances, which can have a positive impact on the economy of their home countries as well.

Irregular migrants, labour migrants and internally displaced persons

Additionally, there are also **irregular migrants**, **labour migrants** or even **internally displaced persons**. Irregular migrants, also called **undocumented migrants** or **illegal migrants**, do not have a regular permit to stay in the host country for different reasons; unsuccessful in asylum application, an expired visa or because they entered the country illegally (15). **Labour migrants** or migrant workers are to be engaged, are engaged or have been engaged in a remunerated activity in a State of which they are not a national (6). According to the UNHCR, internally displaced person *"brings together the concept of persons who flee for many reasons similar to refugees, with the fact that they have not crossed an international boundary"* (16).

Nationality, citizenship and country of birth

Nationality represents the official affiliation with a specific country (or countries) based on **citizenship** (7). Citizenship, as defined, is the legal connection between an individual and their country, acquired either through birth or other methods, such as marriage, in accordance with national legislation (7). In Belgium, **citizenship** is closely intertwined with **nationality**, whereas in some other nations like the UK, it is more associated with one's **country of birth** and **duration of residency** (17). In Belgium, nationality primarily relates to the **right of blood**, and the acquisition of nationality based on place of birth is automatically extended only to the immigrants' grandchildren, although others have the option to obtain it through naturalisation (17).

It is important to note that an individual's legal status serves as a critical determinant, distinguishing between citizens and non-citizens and regulating access to various social, political, and economic rights. According to the Migrant Policy Index Integration 2020 (MIPEX), Belgium is considered *slightly favourable* in terms of providing migrants access to nationality. First-generation immigrants in Belgium can acquire dual nationality after five years of residence through a rights-based procedure. However, this process has relatively stringent conditions that may not fully support the needs of many applicants (18). The 2012 Nationality reform maintained the strict good character requirement and introduced additional criteria such as a fee, language, integration and economic resource requirement. In contrast, half of the MIPEX countries do not impose an integration or economic resource requirement. Drawing from extensive international research on nationality policies and their consequences, it is evident that Belgium's facilitated naturalisation policy, implemented from 2000 to 2011, played a significant role contributing to Belgium's historically high rates of naturalisation, increased immigrant political engagement, and the development of a shared sense of belonging in the country (18).

Due to these migrations, our world is become ethnically and culturally diverse (19).

Ethnic minorities

Ethnic minorities are a group numerically inferior to the majority of the population **and/or** finding themselves in a socially dominated position, whose members have distinct cultural, linguistic, or religious characteristics distinguishing them from the majority population (6). Ethnicity encompasses the cultural practices and perspectives that set apart a specific community of individuals (20). Ethnicity serves as both a representation of an individual's social affiliation, shaped by a combination of **objective** elements such as shared language, religion, and **subjective** factors, when individuals self-identify or are recognised by others as members of a minority (21, 22). Members of ethnic groups perceive themselves as culturally distinct within a society, so that ethnicity takes a **meaning depending on the context**.

Ethnicity and race

Ethnicity and race are distinct but interconnected concepts, and their interpretation can vary based on historical, social, and cultural contexts. Both are social constructions shaped by how society categorises individuals in terms of race and ethnicity.

From a biological perspective, “race” typically refers to the group to which a person belongs or is perceived to belong based on **physical features** such as skin colour, eye colour, hair texture, and the shapes of specific facial features like the nose and lips, reflecting their geographic origin (23, 24). The term “race” is more prominently used in the United States due to its unique historical context and complex societal dynamics. Notably, Afro-Americans in the U.S. are not typically considered migrants in the same manner as individuals arriving from other countries, as is often the case in Europe. The significance of race and ethnicity concepts has evolved differently in the USA and Europe due to distinct migration histories. In the US, race has historical significance, owing to the legacy of slavery and the treatment of indigenous populations. American history has been marked by systemic racism, with divisions based on crude classifications rooted in Linnaeus’ taxonomy, which classified humans into four categories (25):

- *Homo afer*, later synonymous with Black and African origin;
- *Homo europaeus*, later synonymous with White, European origin, and Caucasian
- *Homo asiaticus*, later synonymous with Asian
- *Homo americanus*, later synonymous with American Indian, native American, or North American Indian

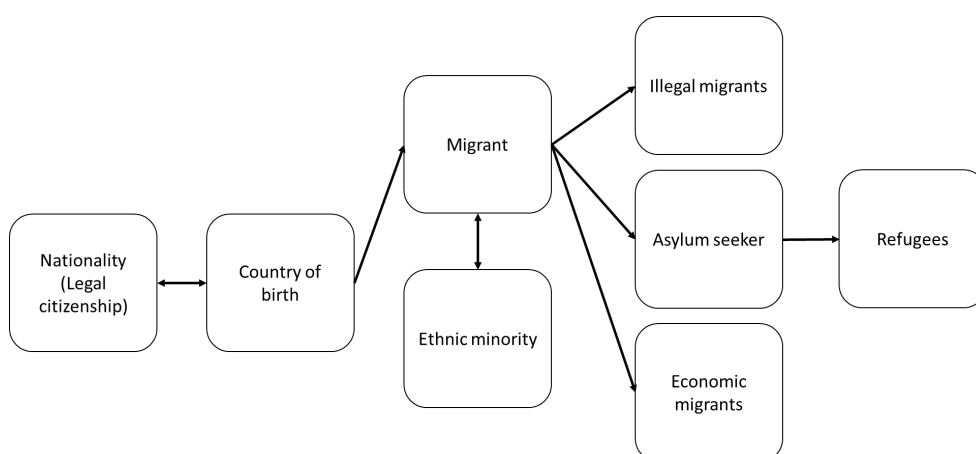
In recent times, the concept of “**ethnicity**” has gained acceptance, largely as a more socially and culturally sensitive alternative to “race”. Ethnicity is a broader term, derived from the Greek word “*ethnos*”, meaning a nation or people. Ethnicity is characterised as a social construction involving categorical attribution that classifies individuals based on their presumed origin, and this classification is validated in social interactions through the implementation of culturally distinctive signs (2). Ethnicity often relates to the language spoken, nationality, and religious expression, such as in Islam. Unlike race, which may oversimplify differences, ethnicity can be more specific. For example, an individual’s race might be classified as White, while their ethnicity could identify them as Belgian. People of Moroccan origin, for instance, might identify ethnically as Moroccan while having a broader racial classification, such as Caucasian and/or sub-Saharan Black African (1).

In Europe, racial divisions are not as deeply enclosed in social structures as they are in the US. Ethnicity in Europe has been shaped by a history of multiple migrations, colonial legacies, and regional diversity, making it more closely tied to nationality and influenced by the continent’s complex migration patterns.

Sometimes, the hybrid term “**Ethnicity/Race**” is used in literature, leading to some confusion. Nowadays, the concept of ethnicity remains complex due to the intricate interplay of **social, political, historical, and geographical** factors that shape and, at times, reshape the boundaries and significance of group identity (26).

Figure 1 below attempts to capture the multifaceted nature of all these interconnected predefined concepts, illustrating the complexity of their relationships. In this schema “nationality” represents a person’s official affiliation with a specific country, based on citizenship, which grants them specific legal rights and responsibilities. The legal status is closely linked to the individual’s country of birth, which can have implications for their nationality and citizenship. The term “migrant” refers to individuals who move, whether internally within a country (not represented in the schema) or across international borders. Some migrants may be ethnic minorities and vice versa, as some migrants may exhibit diverse legal statuses. Among these statuses, we find “illegal migrants”, residing in a country without proper authorisation or documentation, “asylum seekers”, seeking international protection and, “economic migrants”, seeking improved job opportunities or living standards. While they often aim to use legal migration channels, they may encounter challenges related to their legal status. Among the “asylum seeker” category, some may eventually be granted legal refugee status based on international legal standards and agreements.

Figure 1 Interconnected concepts related to migration, nationality, and legal status



Culture and cultural identity

Culture is a broad concept that can be defined in a range of ways. Giddens (27) defines it as *“the ways of life of the members of a society, or of groups within a society that comprises (...) beliefs, values, which form of the content of the culture, (...) objects, symbols or technology which represent that content..., culture is the symbolic and learn aspect of the human society”*. According to Tylor (28), culture relates to a complex body including knowledge, beliefs, art, morality, law, customs and all other abilities and habits **acquired** by individuals as members of a society. Culture has also been defined as a *“dynamic and creative phenomenon, some aspects of which are shared by large groups of people and other aspects which are the creation of small groups and individuals resulting from particular life circumstances and histories”* (29). This reflects that culture is an ongoing process that evolves across life.

This reminds me of a colleague’s experience- a story of someone who, upon moving to the Netherlands, began learning how to cycle as it is a widely adopted mode of transport there. This anecdote vividly highlights the idea that culture can adapt and reshape our behaviours in alignment with the environments in which we find ourselves immersed.

Across the different definitions of culture, some common points emerged such as the intergenerational transmission of **traditions, attitudes**, set of ideas, ways of living, coping behaviours, **values, norms**, customs, and beliefs that persist within large groups of people (27, 30).

Cultural diversity is defined by the European Migration Network, as the diversity of forms of culture in a society composed of groups of people from many different cultural backgrounds (7). Cultures vary widely across the world but also within the same place. In that sense, there are observable factors (i.e. gender, age, race/ethnicity, disability and attractiveness) and non-observable factors (i.e. socioeconomic status, experience of oppression, education, religious affiliation, and level of acculturation) that contribute to cultural diversity in societies (31, 32).

Cultural identity, as defined by the sociologist Durkheim, is a complex concept encompassing shared beliefs, values, norms, and practices that unite individuals into a cohesive group or society. Durkheim stressed the role of culture in shaping collective consciousness and the moral order that supports social cohesion, emphasising its function in regulating behaviour, and practices, and maintaining societal stability (33).

Tajfel, a renowned figure in social psychology and the proponent of Social Identity Theory, categorises cultural identity as a subset of social identity (34). It constitutes a part of an individual's self-concept derived from their membership in a particular cultural or ethnic group. Tajfel's theory underscores the human tendency to categorise themselves and others into various social groups, including those based on culture or ethnicity. Individuals often exhibit a preference for their ingroup (the cultural or ethnic group to which they belong) and may perceive members of out-groups as different or even inferior. This social categorisation influences how people perceive and interact with individuals from diverse cultural backgrounds, making cultural identity a crucial element in intergroup relations and social behaviour (34).

According to the Berry Model, developed by John W. Berry (35), individuals manage their cultural identity through the **acculturation process**, particularly when they encounter a dominant culture. In this model, one of the key dimensions involves a combination of assimilation and integration. Assimilation represents a process wherein individuals from a minority culture adopt the values, behaviours and practices of the dominant culture, often to the detriment of their original cultural identity. The integration reflects a more balanced approach, wherein individuals maintain a strong connection to their original culture while actively engaging with and adopting elements of the dominant culture. This approach allows for the coexistence of multiple cultural identities, promoting a more inclusive and diverse self-identity. The Berry Model acknowledges that individuals may follow various paths in their acculturation journey, which could involve assimilation, integration, or a combination of both. The acculturation process can depend on personal preferences, social context, and individual circumstances (35). The Berry Model has been influential in understanding cultural identity and how individuals navigate the complexities of multicultural environments, providing valuable insights into the diverse ways people manage their cultural identities when interacting with different cultures.

Overall, there is no universally accepted definition of migration, migrants, race, ethnicity, culture and ethnic minorities. However, it is important to notice that **migration, ethnicity and race** are interrelated terms that are essential for understanding global health and confronting ethnic health inequities (36).

- ⇒ For the purpose of this thesis, the term “ethnicity” encompasses various aspects such as religion, language, culture and other characteristics that collectively shape an individual's sense of identity. Throughout this dissertation, we referred to “**migrants and ethnic minorities (MEM)**” under

specific criteria. MEM include individuals who have either migrated to their present country of residence, have at least one parent who migrated to the current host country, or have had a different nationality from their current host country. In the literature, these individuals are sometimes referred to as those **with a migration background or as first or second-generation migrants** (37). It is important to note that we did not differentiate based on the legal status of individuals with a migrant and ethnic minority background. In the context of this dissertation, we included all individuals, regardless of their legal status.

- ⇒ More precisely, the following chapters will address these concepts in different ways, and it was important to specify the types of migrant and ethnic minority populations under discussion.
- ♦ In Chapter 2 and Chapter 3, we provided an overview of prior research on the mental health of migrant and ethnic minority populations globally, including regions such as the USA, the UK, Europe, and beyond. Consequently, the specific population under consideration is clearly delineated within each study.
 - ♦ In Chapter 4, we focused on two specific concepts for defining participants' ethnicity: the country of birth and nationality. As mentioned earlier, nationality and country of birth are distinct yet interconnected concepts, as nationality can be influenced by an individual's country of birth, particularly when a country's laws grant citizenship based on place of birth (*jus soli*). In such cases, individuals born in that country may automatically become citizens. However, nationality can also be acquired through descent (*jus sanguinis*) or a legal process, such as naturalisation. To capture the most comprehensive information on individual migration and ethnic background, we employed these concepts in Chapter 4 to describe individuals' ethnicity, even if it does not strictly define a person's ethnicity.
 - ♦ In Chapter 5, we used the cultural consonance of respondents' first names to illustrate the concept of ethnicity. Since ethnicity is closely related to languages, we used them to differentiate between various ethnic groups.

- ♦ In Chapter 6 and Chapter 7, we used the physical features of individuals to distinguish between two ethnic groups. In these cases, the individuals were fluent in the host country's language, but their facial features and subtle accent suggested their affiliation with a particular ethnic group. These concepts are further elaborated within each chapter.
- ⇒ The application of these concepts will primarily take place in the **Belgian context**, which, like Europe as a whole, underwent important labour migration from Turkey and Morocco in the early 1960s (38). The next section will address an overview of the history and the contextualisation of the migration flow in Europe, especially in Belgium.

1.2. Contextualisation and history

The 1940s – 1950s

Back in the midst of the 20th century, Europe experienced a significant phase of **internal** migration, with immigrants constituting around 5% to 15% of the total population (39). The aftermath of World War II brought about a significant **shift** in European migration patterns. The need for reconstruction and **labour shortages** led to the recruitment of foreign workers. Western Europe, including Belgium, France, Germany, northern Italy, Switzerland, Austria, the Netherlands, Luxembourg, the United Kingdom (UK), Denmark and Sweden actively recruited **labour migrants** from southern European countries, such as Portugal, Spain, Italy, and Greece. This move was propelled by the rising education levels among native workers due to Western Europe's economic boom at the time. Consequently, these native workers were less willing to undertake low-paying jobs like agriculture, mining, construction, and cleaning (40).

The 1960s

The 1960s marked yet another shift in migration patterns, as countries in the southern regions entered their own economic growth and demographic changes. In response, **Belgium**, Germany, the Netherlands, and Scandinavian countries entered agreements to recruit workers from Turkey, Morocco, and Algeria. Initially intended for temporary labour, these migrants were eventually expected to return to their home countries. (38, 40-42).

The 1970s -1980s

The 1970s and the 1980s marked a **transition** from temporary labour migration to more **permanent settlement** trends. Many guest workers and their families opted to stay in their host countries, often using family reunification and marriages as the main route of entrance due to strict regulations by North-Western European governments (40). Economic challenges stemming from the 1973-1974 oil crisis and shifts toward service-based economies further complicated the situation. The demand for industrial labour decreased, resulting in mass unemployment and segregation that marginalised significant portions of immigrant populations and their second-generation descendants. While the demand for low-skilled labour declined, specialised service jobs began to flourish, leading to an increased need for highly skilled migrant workers (43).

In **Belgium**, labour migrants were expected to return home after contract expiration, but only a few did due to contract renewals by employers favouring experienced workers. This resulted in a significant migrant population of 8-10%, driven by family reunification during a phase of stricter policies (5, 44).

The 1990s

In the late 20th century and early 21st century, Western Europe underwent an increase in migration of asylum seekers due to **political conflicts** and **humanitarian crises**. This trend was driven by the fall of the Iron Curtain, the end of the Cold War and the conflicts in the former Yugoslavia (43). Concurrently, the restrictions on the entrance of foreigners into Northern Europe influenced migration patterns in Southern Europe. A new wave of labour migration emerged in Greece, Italy, Portugal and Spain, motivated by economic growth and declining birth rates, leading to shortages in the labour market. The available jobs often featured irregular employment arrangements and unfavourable conditions, with low wages, rendering them unappealing to local populations (43).

Concurrently, Southern Europe became an attractive destination for non-EU migrants, particularly from North Africa, Latin America, Asia, and later Eastern Europe. This shift can be attributed to renewed economic growth, political conflicts, further European integration, the establishment of the Schengen zone, and the simultaneous strengthening of border controls at the EU's external borders (42, 43).

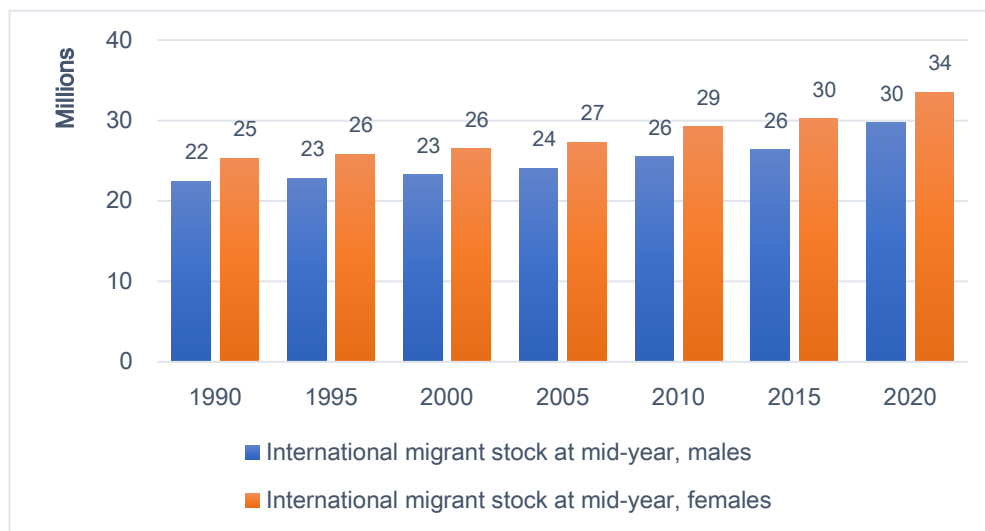
Due to its strategic position in Europe, Belgium saw an increase in asylum applications, from 32.1 thousand between 1985-89 to 87.0 thousand between 1990-1994 (45).

2000s – nowadays

According to Eurostat, the statistical office of the European Union, the number of international migrants residing in Europe increased from around 48 million in 2000 to approximately 82 million in 2020, representing a substantial increase over the two-decade period (3, 46). In Belgium, this number increased by approximately 1.5 million, comprising 14.6% of the Belgian population, reaching around 2.4 million or 20.8% by 2020.

Figure 2 illustrates the evolution of international migrants (individuals born in a country other than their current residence) from 1990-2020 at mid-year, by sex, across Europe.

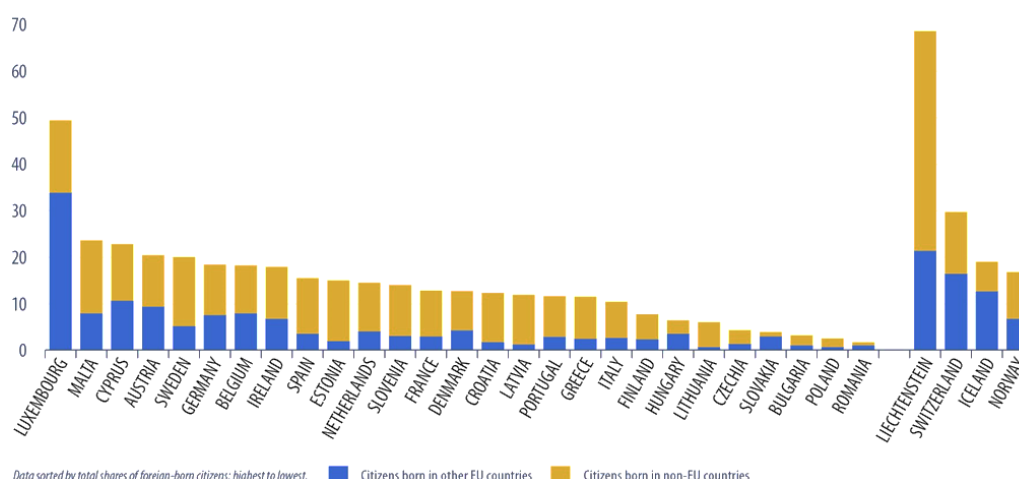
Figure 2 Estimates of international migrants numbers by sex in Europe, at mid-year, 1990-2020 (47)



Nowadays, international migrants comprise 13.5% of the European population, although this percentage varies significantly across EU countries, Luxembourg has the highest representation, with migrants accounting for 49.4% of the population, while Romania has the lowest at 1.7%, as depicted in Figure 3 (4, 46). While the increase of international migrants has become significant over time, it is noteworthy that the majority of people migrate within countries, (4, 5).

On 1 January 2023, citizens born in other countries constitute 19.4% of the Belgian population, with significant representation from neighbouring countries (France, the Netherlands, and Germany), as well as Italy, North Africa and Sub-Saharan Africa, Turkish and Dutch (36, 39). However, this percentage is not uniformly distributed across Belgium's regions: Flanders (Dutch-speaking Region) hosts 15.8% of migrants, Wallonia (French-speaking) has 24.4% and Brussels (the Capital) stands at 39.7% (36). This indicates that migration pattern is very heterogeneous from a geographical perspective.

Figure 3 International migrants in EU countries, 1 January 2022 (% of the population) (46)



The future

The future pattern of migration is challenging to predict due to variations in migration definitions, data quality issues, and the influence of multiple drivers encompassing social, political, demographic, economic, environmental and technological changes (48). Nevertheless, the Organisation for Economic Co-Operation and Development (OECD) has outlined four projections for migration by 2030, providing insights into the future of migration in Europe (49).

The **first scenario** extends existing trends resulting in “slower growth” in developing economies compared to the previous 15 years. Migration in this scenario does not increase significantly beyond the 3.3% level observed in 2015, although the actual number of migrants has increased in line with global population growth. Labour migration pressures originate from sub-Saharan Africa and Middle Eastern countries, driven by their youth bulge (49). The **second scenario** envisions significant progress towards achieving the Sustainable Development Goals (SDG). This scenario considers migration as a potential engine of development in both countries of origin and destination and in developed and developing economies alike. The stock of migrants to the global population has increased to above 4% (49). The **third scenario** depicts a world in crisis, with countries seeking to cooperate to address major challenges. Migration pressures increase due to people wanting to leave, but economic hardships may hinder their ability to migrate. Environmental

stress, including natural disasters, contributes to displacement in developing countries, and cross-border refugee levels rise. Population movements are marked by sudden, large-scale migrations in response to episodes of violence, conflicts, and social disruptions (49). Lastly, the **fourth scenario** is entitled “rapid automation and conflicts”. In a context of global cooperation deterioration and rapid automation, advanced economies experience boosted productivity and economic growth. However, many new jobs require high skills, and automation reduces the demand for labour. Migration becomes subject to more restrictive policies in an increasingly xenophobic world. Limited financial means act as a major barrier to effective migration for individuals in developing countries (49).

In Europe, voluntary and involuntary migration is likely to continue, shaped by opportunities, conflicts and environmental changes. Immigration and asylum policies will be pivotal, requiring international cooperation to ensure effective migration management (49).

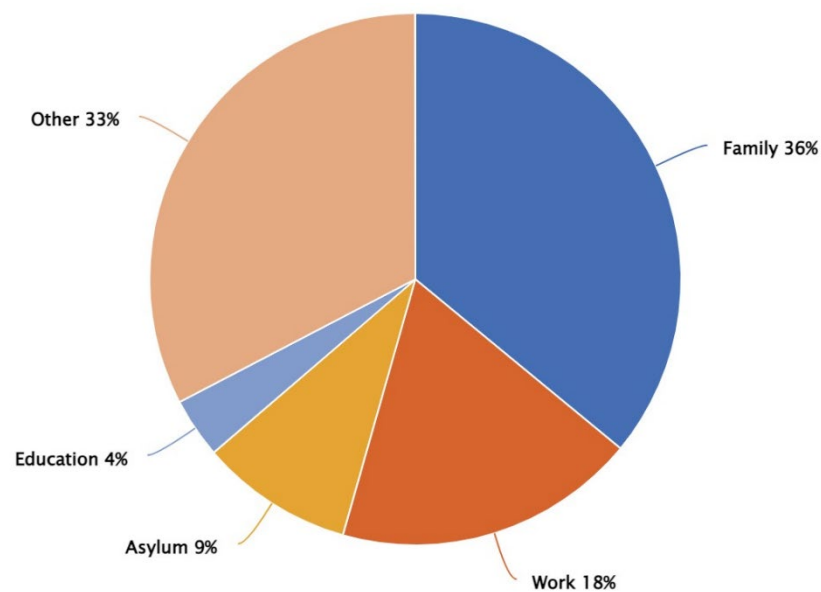
Belgium is likely to be similarly affected by the broader trends in migration. Belgium's future migration landscape will be shaped by global and regional dynamics, including the ongoing need for skilled labour and the country's commitment to humanitarian efforts. Integration policies and inclusive measures can have varying effects on the smooth transition of migrants into Belgian society, potentially influencing their contributions to the nation's cultural diversity and economic growth (50). Adaptability and forward-thinking policies will be key in addressing the challenges and opportunities associated with migration in Belgium in the coming years.

1.3. Reasons for migration

The distribution of migrants is shaped by national policies, economic conditions, and geopolitical factors. **Migration drivers** range from family reunification and work to asylum and education. Figure 4 presents the distribution of reasons for migrants staying in Europe in 2021. The composition of migrant groups has grown more diverse over time, with individuals arriving from different regions of the world, contributing to the multicultural facets of European societies. Nowadays, the motivations behind individual migration are complex, and influenced by **macro-level factors** (political, demographic, socioeconomic and environmental situations), **meso-level factors** (social networks, wars, human rights violations), and **micro-level factors** (education, religion, marital status, family union, healthcare, and personal attitude towards migration) (51). These factors collectively serve as “push or pull factors” influencing migration decisions. The notion of poor and rural

migrants solely reaching the borders of affluent countries has to be forgotten (52), as migrants are driven by reasons such as conflict and poverty, often becoming trapped in their own countries or neighbouring nations (51).

Figure 4 Reasons for migrants to stay in Europe in 2021 (53)



In conclusion to this opening chapter, it becomes evident that the global, European, and Belgian societies are continually evolving, driven by the multifaceted influence of international migration on their demographic composition. MEM bring with them a wealth of valuable skills, energy, innovation, knowledge, and cultural diversity to their host communities, thereby contributing to improved performance, economic growth, labour-market flexibility, taxes, social contributions, and technological progress (14). Migration, on one hand, can bring about positive outcomes, while on the other, it carries the potential for adverse effects, particularly regarding their physical and **mental health status** (54-57). The subsequent chapter will specifically delve into the relationship between ethnicity, culture, migration background and their influence on mental health.

- ⇒ The definition of migrant and ethnic minority (MEM) varies depending on the specific context of the study, underlining the complexity and multidimensionality inherent to these concepts.
- ⇒ In Europe, approximately 13.5% of the population are international migrants (WHO, 2022). Belgium, in particular, has a significant international migrant population, accounting for 19.4% of the population (Eurostat, 2023).
- ⇒ Although migration is not a recent phenomenon, MEM continue to encounter various challenges and disparities, which will be explored in greater detail in the forthcoming chapters, with a particular emphasis on the realm of mental healthcare.



*"(...) if it's culture that decides
what's "crazy" and what's
reasonable behavior — then there
may be no such thing as an illness
that isn't culture-bound."
(Nasser, 2012)*

CHAPTER 2

ETHNICITY AND MENTAL HEALTH

Chapter 2 – Ethnicity and mental health

This chapter presents a brief review of the literature, focusing on the mental health and mental healthcare of migrant and ethnic minority populations. A brief definition of mental health, underscoring its specific significance within MEM communities, will be provided. Subsequently, this chapter will delve into the prevalence of various mental health indicators among MEM populations, with particular attention on the Belgian context. Finally, it will explore the complex nature of mental health within MEM and the healthcare-related challenges that these groups may encounter. These challenges play a pivotal role in perpetuating the cycle of ethnic disparities, significantly impacting the overall mental health status of these groups and thus creating a vicious circle (58-60).

2.1. Definitions

Mental health is a state of well-being that plays a key role in how individuals cope with stress, think, feel, realise their abilities, learn, work effectively, and interact with others. It ensures a balanced and well-functioning life (61-63). This thesis focuses on common mental disorders according to the National Institute of Mental Health (NIMH), especially mood disorders (e.g. depression), stress-related neurotic disorders like post-traumatic stress disorder (PTSD), anxiety, and sleep disorder (64, 65).

Mental health disorders affect **one in four individuals** worldwide at some point in their lives (61, 66). These disorders increase the risk for all-cause mortality and morbidities, standing as a significant contributor to worldwide causes of death. Further, they rank among the top ten leading causes of burden worldwide (67-72). Causes and mechanisms of mental health are manifold (genetic, infectious, toxicological, environmental, neurological, or social causes) and different factors contribute to the risk of mental illness (loneliness, isolation, biological factors, traumatic experiences, discrimination) (73). Mental health disorders know no boundaries and can affect individuals of all ages, regardless of gender or geographical location (63). Mental health disorders are therefore a societal issue that needs to be addressed.

Numerous studies and systematic reviews have examined the mental health of MEM in comparison to that of native populations. Overall, **mitigated results** have been reported. On one hand, certain MEM populations exhibit a better mental health status than the host-country population. This phenomenon, known as the “Immigrant Paradox” or the “Healthy Immigrant Effect”, suggests that immigrants

tend to have better (mental) health outcomes than the local population (74-76). However, it is important to note that this paradox has predominantly been explored in terms of mortality and physical health outcomes, such as diabetes and cholesterol, rather than in the context of mental health (77). The available evidence in this regard has been inconsistent, making it challenging to definitively establish a mental health advantage among immigrants (78).

On the other hand, there are instances within research where specific MEM groups face a lower mental health status compared to the general population (79). Additionally, a concerning trend of declining mental health has been observed among these groups over time (78).

2.2. Prevalence and incidence

Previous studies have suggested that migrants and ethnic minorities might have a higher vulnerability to experiencing mental health disorders in comparison with the native populations (55, 56, 80-91). Specifically, several MEM subgroups have exhibited higher prevalence rates of post-traumatic stress disorder (PTSD), particularly among refugees (47%, CI_{95%}: 31-63%, according to the combined prevalence rate of a meta-analysis between 1994 and 2007) (92).

A systematic review including over 7,000 refugee residents in high-income Western countries defined by membership of the Organisation for Economic Cooperation and Development (OECD), provided further insights. This review found that refugees originating from Southeast Asia, the former Yugoslavia, the Middle East, and Central America exhibited a combined estimate of **PTSD** of 9% (99% CI 8-10). However, considerable heterogeneity was observed among the studies, a variance attributed in part to factors like the study population and study design, including ethnic group, age group, host country, duration of displacement, sample size, diagnostic method, sampling method and language of interviewers (93). The review also delved into the prevalence of major depression among refugees. It reported that approximately 1 in 20 refugees experienced major depression, primarily among those hailing from southeast Asia, former Yugoslavia, Haiti and Cuba. However, the result of major depression was similar to those in several general western populations (Portes, Kyle and Eaton (1992), Robins and Regier (1991); cited by Fazel (2005)(93)). Yet, similar to the PTSD findings, substantial heterogeneity was evident across the studies (93).

An Italian study offered further perspective by highlighting the prevalent mental health conditions among asylum seekers, in 15 *Doctors Without Borders*-supported centres. The study revealed that mental health conditions such as PTSD (31%) and depression (20%) were identified among asylum seekers who were young (with an

average age of 23 years old, 95% CI 20-26) African country males who had left their home countries more than a year prior to arrival (94).

Additionally, certain MEM, particularly those in middle-aged and older categories of the first-generation migrants, exhibit a higher prevalence of depression, with an odds ratio (OR) of 1.54 (95% CI 1.39-1.70), along with a higher vulnerability of developing depression (95). This trend is observable in Europe and the UK, where research has underscored a **higher prevalence of depression** among MEM groups, especially among those who are younger and have experienced more economic stress and ethnic discrimination than native populations (96, 97).

In the context of the Netherlands, individuals with a Turkish migration background have been found to experience a higher level of psychological distress in comparison to the general population, especially among women (98, 99). More precisely, when considering males, unemployment emerged as a significant risk factor, whereas among females, the presence of physical illness and responsibilities related to family care contributed to an increased risk. Common stressors such as financial concerns and housing issues are also associated with elevated risk levels (98). Similar patterns have been observed in Germany, where a scoping review shed light on an association between depressive symptoms and migration status among older migrant populations (100).

A systematic review underlined similar results with a higher risk of schizophrenia within the Black African (RR 5.72, 95% CI 3.87-8.46) and Black Caribbean populations (RR 5.20, 95% CI 4.33-6.24), but also within the South Asian, and Mixed Ethnicity populations, in comparison to the reference population (101).

Regarding the **incidence** of psychotic disorders, such as depression, in different ethnic minority groups in the UK, a systematic review covering sixty years, from 1950 to 2009, reported that, overall, the incidence of developing depression was consistently raised for Black Caribbean and black African migrants and their descendants, compared with the baseline population, typically those of white or white British population (89). In the Netherlands, studies have highlighted a higher incidence of mental illness among Moroccans and Turks, with a higher severity (86, 102, 103).

Nevertheless, two studies, a Canadian and a Finnish, did not confirm these findings, except for North African and Middle Eastern immigrants, as their results showed that migrants had a **better mental health status** than non-migrants, regarding mental health disorders, depression, and psychological distress (104, 105). In

Norway, a lower prevalence of most ICD-10¹ mental health disorders for the majority of immigrant groups was found, compared to ethnic Norwegians, except for conditions like schizophrenia and PTSD (106). In addition, a Belgian study highlighted that people with Congolese nationality at birth reported higher self-rated health than Belgian citizens (107). The authors explained this result by the fact that respondents were mainly students in higher education in that group.

Overall, the literature highlighted that certain MEM groups may exhibit a higher risk of mental illness, compared with the host-country population, and also among the second-generation (82, 86, 100, 107, 108). However, a European study revealed that this prevalence differed according to the migrant group and their environment. In Belgium, similar findings emerged highlighting that people with **Moroccan** and **Turkish** migration backgrounds had a **higher risk for mental illness** than Belgian-born (96, 109, 110) and that they were more likely to have poorer self-perceived health than the Belgian populations (107). Further, a higher prevalence of PTSD and anxiety was found, especially among unaccompanied minor refugees (111).

2.3. Hospitalisations

Belgium, like many other Occidental countries, knew an important reform aiming to reduce the mental health care at hospitals. Nevertheless, admission rates for psychiatric treatment remain disproportionally higher within certain migrant and ethnic minority groups compared to the native populations (112, 113). For instance, in the UK, Carta and colleagues (112) identified that hospital admission rates for schizophrenia were notably higher among people with Caribbean, Irish, Polish, Indian and Pakistani backgrounds.

Another study investigating racial and ethnic disparities in psychiatric hospital treatment outcomes across Belgium, Germany, Italy, Poland and the UK, revealed that i) migrants (patients born outside the respective country) reported lower satisfaction levels than non-migrants (patients born within the country), although the difference was modest, ii) migrants exhibited a significant underutilisation of hospital services in Europe than native populations, and iii) there was an identified limitation in the availability of mental health care services for migrants (113). This study, however, did not discover any notable variance in terms of hospital stay duration or re-hospitalisation rates (113).

¹ International Statistical Classification of Diseases and Related Health Problems 10th Revision

Within Belgium specifically, a study investigating psychiatric disorders among second-generation Moroccan migrants revealed that migrant patients had a higher rate of admission for psychotic disorders when compared to Belgian patients (114).

A scoping review assessing mental health among adult refugees and migrants in Europe highlighted a lower utilisation of hospital services by migrants. However, the review also noted that the exploration of mental health among migrants remains relatively understudied in comparison to the mental health of refugees, for whom there is a presumption that mental health challenges arise from the uncertainties of the migration process (100).

2.4. Compulsory admissions

Monitoring disparities in **compulsory admissions** (detaining a person in secure settings, such as a hospital, due to mental health concerns (59)) is important, as they serve as **indicators of inadequacies** in providing care for individuals with severe mental disorders, such as schizophrenia or long-term mood disorders, within the community. Moreover, these discrepancies also demonstrate the potential for unequal treatment among different patient groups.

In England, a systematic review, indicated a significant increase in the likelihood of compulsory admission for Black Caribbean people, revealing a 3.5 times higher probability compared to the White reference group (115). The authors further noted that this pattern held true for both Black African individuals and South Asian patients, who exhibit 3 times and 1.5 times higher rates of experiencing compulsory admission, respectively, when compared to White patients. These results were also consistent with those that have been demonstrated in Italy (116), in the UK (117) and in Sweden, where migrants and children of migrants were more likely to be compulsory admitted at first admission for psychotic disorder than the native-born population (118). In Belgium, a study investigating the diverse legal criteria for involuntary commitment under the Belgian Mental Health Act of 1990 revealed that foreigners, often perceived as more demanding patients, faced a greater likelihood of being committed (119). This increased likelihood was linked to the lack of available alternative forms of care. The authors argued that the elevated risk of commitment among ethnic minorities could be largely explained by their hesitancy to embrace care, underscoring challenges within the mental healthcare system to provide attractive alternative care options for these more demanding patients (119).

2.5. Suicide rate

Suicide rate serves as a metric for assessing mental health within a specific population. This is because suicide may result from a complex interplay of factors, such as psychological, social and socioeconomic elements. These factors include a range of variables such as traumatic life events, substance abuse, depression, and other forms of mental disorders.

The results of the suicide mortality risk, when comparing migrants and non-migrants, are **mitigated**. According to a systematic review and meta-analysis, migrants exhibited a mortality advantage in terms of mental disorders compared with the general population in destination countries (76). Conversely, a German study found that Turkish migrants reported a strongly increased suicidal ideation (OR 3.02; 95% CI 1.80-5.04) after taking sex, age, and socioeconomic status into account (83). Another study showed that Belgians tend to have one of the highest suicide mortality risk with an indirect age-standardised mortality rate (ISMR) of 40 per 100,000 person-years (95% CI 39.1-40.9), whereas men of Moroccan and Turkish origin had the lowest with an ISMR of 13.9 per 100,000 (95% CI 10.8-17.7) and 16 (95% CI 11.7-21.3), respectively. Italian populations were somewhere in between (120). Regarding the suicide rate by gender, the authors found that the ISMR ranged from 15.1 (95% CI 14.5-15.6) in Belgian women to 5.0 (95% CI 2.8-7.6) in women of Moroccan origin. Interestingly, Bauwelinck et al. (120) showed that there was less suicide among migrants than among native populations but, the differences increased between the first- and the second-generation migrants. For example, **men of second-generation Moroccan origin** had a suicide mortality rate **3.7 times higher** compared to the first generation, while the rate of death by suicide for second-generation Turkish women was 2.5 times that of first-generation women, although this difference was not significant.

A European study examining suicide attempt rates among migrant populations in comparison to the suicide attempt rates of their host countries has shed light on intriguing findings. This study included 56 immigrant groups, revealing that 27 of them demonstrated significantly higher suicide attempt rates when compared to their host countries, while only four groups exhibited significantly lower rates (121). In addition, individuals from Chile, Iran, Morocco and Turkey exhibited significantly higher suicide attempt rates, even though their countries of origin generally have lower suicide rates.

In the US, a study indicated that Asian, Latino, non-Latino Black and non-Latino White immigrants had a lower prevalence of suicide ideation and attempts, in comparison to their US-born counterparts within the same ethnic groups (122).

2.6. Patient satisfaction

A good indicator of care quality is patient satisfaction. A study conducted in Belgium, Germany, Italy, Poland and the UK on the outcomes of psychiatric hospital treatment, highlighted that migrants were **less satisfied** than non-migrants, although the difference was small (113). This result was confirmed elsewhere (123). A Danish study found that non-Western migrants were satisfied with their mental health treatment received in a specialised outpatient mental health clinic, while only 48.8% reported an improvement in health and situation after the treatment (124).

Jackson et al. (125) analysing the data of the National Survey of American Life, reported that Caribbean Black patients exhibited a higher satisfaction with specialty mental health services compared to African American respondents. The authors also reported an association between satisfaction and other ethnic origins, however, these differences did not reach statistical significance (125).

2.7. Medical decisions

Prior research has also shed light on medical decisions as one of the factors contributing to ethnic and racial disparities in mental health care. However, the studies investigating this topic often exhibit mitigated results, with on one hand, no evidence of ethnic disparities in medical decisions, and on the other hand, some findings that highlighted differences in various aspects of care. In this section, we will further develop the ethnic and racial disparities related to diagnosis, treatment and referral decisions in mental health care (126, 127).

Diagnosis

Given the significant global prevalence of mental health disorders, the early diagnosis and appropriate treatment of these conditions are of paramount importance for preventing disability and enhancing the overall quality of life of migrants and ethnic minorities. Yet, specific studies have brought to light a concerning issue: the existence of racial and ethnic disparities in the diagnosis, treatment recommendations and access to mental health services, particularly in medical decision-making, including general practitioners (GPs) (128-131). However, it is important to note that these ethnic disparities in medical decisions are influenced by the specific population studied and the context of care. Thus, it becomes evident that establishing a common trend in the mental health status of

ethnic and racial groups across diverse contexts and environments remains challenging.

To illustrate this, the study of Borowsky et al. (130) used the observational data from the Medical Outcomes Study in order to determine whether some types of patients were less likely to be identified by their physicians as having mental health problems, given the same level of mental health functioning. The findings suggested a significant reduction in the odds of physicians' detection of a mental health problem among African Americans with an adjusted OR of 0.42 (95% CI 0.23-0.76), Hispanics with an adjusted OR of 0.29 (95% CI 0.11-0.71), compared with Whites. In addition, younger patients (<35 years compared to those older than 65 years old), and men (compared with women) were significantly less likely to be detected. The authors reported that mental health disorder was more frequently detected by GPs among patients who were older, female, white, not married, less educated, or who had less income (130). These results were corroborated by Bailey and colleagues (129), who found that African-American populations were **underdiagnosed** with major depressive disorder.

Nevertheless, African Americans seem to have more severe episodes of depression compared to Caucasians. This result might be related to the presentation of somatic symptoms among African Americans with depression, probably leading physicians to underdiagnose them. Subsequently, once an evaluation has been conducted there is a risk that **interpersonal bias** can play a role in altering the correctness of the psychiatric diagnosis (132). This hypothesis will be further developed in Chapter 3.

A study in the UK also indicated that individuals of Black Caribbean and Black African origins were more likely to receive a diagnosis of severe mental illness than the White majority (133). The authors reported an even greater and persistent over-representation at the severe end of the diagnostic spectrum, which is evident in compulsory treatment rates and contacts with the criminal justice system before receiving treatment (101, 133).

Regarding the relative risk (RR) for developing schizophrenia among first-generation migrants, a meta-analysis revealed that the RR was 2.7 (95 % CI 2.3.-3.2), while a separate study revealed a RR of 4.5 (95% CI 1.5-13.1) for second-generation migrants, thereby suggesting a personal or family history of migration was important for the risk of schizophrenia. Despite the large differences between ethnic groups, the meta-analysis concluded an association between the increased risk of schizophrenia and migration (134). Another study underscored that within the context of the US, the most prevalent types of misdiagnoses for Black people

were overdiagnosis of schizophrenia and underdiagnosis of affective disorders (135).

However, a meta-analysis reported that there was **no conclusive evidence** for an association between the increased risk of mood disorders and migration status, in the UK (136). While, in the Netherlands, a study on mood disorders reported higher first admission rates for Turkish and Moroccan males compared to Dutch natives (137).

Another study demonstrated that GPs may experience challenges with diagnosing patients from **different cultural backgrounds**, especially between Punjabis (as referred to as Asian-Indian, Asian-Pakistani, Asian British and Asian-African) and English populations. Authors highlighted that *“Punjabis were more likely to suffer with “depressive ideas”, yet general practitioners were less likely to detect disorder among Punjabi cases with depressive ideas”* (138). In addition, evidence has shown that Punjabis were more likely to receive a diagnosis of *“subclinical emotional disturbance”* and *“physical illness with somatic complaints”* compared with English citizens (138).

It is worth noting that most of the aforementioned studies were mainly conducted in the context of the US and the UK. As explained earlier in this section, medical decisions in interethnic mental health consultations are influenced by the **specific population** and are **context-dependent**.

In Europe, a systematic review was conducted in 2019 by Satinsky and colleagues (139) on mental health care utilisation and access among refugees and asylum seekers. The study outlined higher mental health needs among refugees and asylum seekers, though, their under-utilisation of those services in European host countries, is partially explained by stigma, help-seeking behaviours and negative attitudes towards and by providers.

Finally, poor primary care GP detection of common mental health disorders, such as **depression**, is a major barrier to appropriate care for patients with a migration background, because these patients may also be **less likely to access** care for mental disorders, than the population without a migration background (140).

Treatment

Several studies investigating the ethnic and racial disparities in (mental) healthcare, highlighted that certain MEM may be **less likely to receive a treatment**, or adequate specialist treatment for mental health problems or continuous treatment

from primary care (126-128, 141-143). Indeed, Black-White disparities in any psychotropic medication use increased from 7.6% to 10.0%, between 2004-2005 and 2011-2012. Further, this result was similar for Hispanic-White disparities, after adjustment for clinical needs (127). Another study reported that disparities in quality care for MEM populations remain a critical issue in mental healthcare by evidencing that Latino, Asian, and African American populations were significantly less likely to receive access to any mental health treatment, compared with non-Latino White populations (126). In addition, this result remained even after adjusting for poverty, insurance coverage, and education. It appeared that even if they eventually accessed depression treatment, African Americans were particularly at risk of receiving inadequate care (126).

Another study supported this result and found that the likelihood of receiving adequate care for depression was significantly lower for African-American, but also for Hispanic, and Asian American individuals, in contrast to White individuals. Similar disparities also exist in treatment outcomes (128). In Finland, a study showed a higher antidepressant use for female migrants from North Africa and the Middle East, after adjustment for socioeconomic demographic factors, compared to the Finland-born majority (144). Women migrants from all other countries were found with a lower use of antidepressant use. Researchers explained that this result could be related to the higher hospital admission rate for mental disorders found among these groups (105), or to the higher likelihood of having a first-time psychiatric contact for refugees from Iraq and the Middle East compared to native Danes (145), or to the higher risk of depressive symptoms found in Kurdish women migrants from Iran and Iraq (146).

In addition, a meta-analysis on the association between migration and schizophrenia, reported an important difference in treatment paths, as treated cases of severe mental illness were associated with a higher social class, and MEM may tend to be underrepresented in treatment samples (134). In the UK, a study highlighted that Black patients were less likely to access effective interventions in a psychiatric institution than White patients (133).

In Europe, especially in Belgium, research on the link between migration and mental health tends to focus on less common mental disorders. More frequently, these studies rely on patient data, which could potentially impact findings due to variations related to ethnicity and country-specific differences in seeking treatment and admission practices, as concluded by Levecque et al. (96).

Access and referral

Previous research evidenced certain ethnic and racial disparities in **accessing** and referral recommendations to (mental) health services (123, 127, 141, 147-150).

A study conducted between 2004-2012, in the U.S. population over 18 years old, examined the racial/ethnic disparities among Black, Hispanics, Asians, and non-Hispanics. The authors highlighted significant differences between 2004-2005 and 2011-2012 for every racial and ethnic minority group, compared with White populations, regarding the use of any mental health care, and any outpatient care in the past year (127).

One potential explanation for this result is that mental disorders, such as depression, may be stigmatised especially in MEM groups (151, 152). For instance, in African American populations, depression may be perceived as a “personal weakness” that may hinder these populations from seeking mental health care and consequently increase MEM’s risk of untreated mental health conditions (132). This results in MEM groups being more fearful of seeking help for mental health services due to past racist treatment from mental healthcare providers (148, 153, 154). In that sense, several studies and reports concluded that MEM groups were **less likely** to have their **rights** and **health care needs met**, and less likely to be taken seriously in comparison with the populations without a migration background (60, 155).

Immigrants still face disparities in using and accessing primary or specialty healthcare services, in the Netherlands and in Belgium, respectively (156, 157). For instance, in the Netherlands, significantly lower mental health services use was found in Turkish and Moroccan females, although a higher first admission rate was evidenced among these populations (137). In Belgium, a substantial network of primary healthcare facilities is found in urban areas. These areas host a considerable proportion of individuals with Turkish and Moroccan backgrounds; however, accessing these services remains an ongoing challenge (157).

It is crucial to highlight that mental healthcare in primary care settings in Belgium is subject to limited reimbursement, allowing for a maximum of 8 sessions in first-line care and 12 sessions in specialised care dedicated to addressing moderate psychological concerns. This convention started in 2019 and underwent an assessment in October 2023 by the *Mutualité Chrétienne* research service in collaboration with the Sciensano Department of Epidemiology and Public Health (158).

The results of this evaluation reveal a growing trend, but they also highlight the **underutilisation of allocated budgets in some mental health networks**, particularly in the “children and adolescents” networks. The report concludes that there is a substantial demand for psychological care at the population level in Belgium, as indicated by the BELHEALTH² research project. However, the current number of people accessing care through the convention remains low, according to the evaluation report. Nonetheless, the initial objective of reaching vulnerable populations is being achieved with a growing number of users among the beneficiaries of the increased intervention. Regrettably, there is no explicit reference to the accessibility of this particular mental healthcare convention for migrant and ethnic minority populations (158). Consequently to this underutilisation, the financial aspect is less of a barrier when it comes to psychiatric medication or hospitalisations since these specific services are covered by reimbursement policies (159).

A European study on the utilisation of mental health services revealed that one-third of consultations for “emotions or mental health problems” were exclusively with **general practitioners (GP)**, another third sought care solely from mental professionals, more with psychiatrists than psychologists. The remaining third sought help from both sectors. Among individuals with a 12-month prevalence of any mental disorder who engaged with formal health services, **33.4% consulted only a GP**, 19.6% consulted a psychiatrist (but not a GP), 13.5% consulted a psychologist or counsellor (but not a psychiatrist or a GP), and 28% consulted both a GP and a mental health professional (160). This pattern was consistent across various countries (160).

Among individuals with a 12-month prevalence of mental disorders, only one in four (25.7%) reported using formal health services for emotions or mental health in the previous year. Another European report on access to mental health care in Europe pointed out that Belgium’s high rate of hospital beds could indicate either an abundance of resources or a delayed transition towards community-based care, despite policy measures aimed at shifting resources from standalone mental hospitals to community care implement in 2010 (“Réforme 107”) (161). Furthermore, this report highlighted a program for integration between primary care and mental health services in Italy, showing that the proportion of patients

² BELHEALTH (Belgian Health and Wellbeing cohort) is a general population cohort project, starting in September 2022, on factors that impact our resilience or that could put us at risk of mental health issues.

with minor/major depression achieving remission was higher in a collaborative care group (162).

Collectively, these findings show an underutilisation of health services for mental disorders in Europe, with significant room for improvement in accessing mental health services, particularly in Belgium. Additionally, Alonso and colleagues (160) emphasised the prevalence of exclusive utilisation of GPs, while noting that mental health specialists were more frequently consulted than GPs in Europe. The authors also emphasised the central role of the GPs and concluded that they might pose barriers to accessing primary care for mental disorders, especially in Belgium where a significantly lower level of utilisation of health services was found, in comparison with Spain. They asserted that the coordination between primary and specialised care is a crucial determinant of access affecting access, which includes considering potential cultural barriers that may restrict the use of mental health services. This highlights the key role of GPs in identifying and referring both migrant and non-migrant patients with mental health disorders to specialised mental health services.

In the following section, we will delve into the distinct roles of GPs in the field of mental healthcare, alongside first-line psychologists and specialised mental health professionals including psychologists and psychiatrists. Additionally, we will elucidate the reasoning behind the thesis's particular emphasis on the contribution of GPs in providing care and facilitating referrals for individuals who experience both mental health disorders and have a migration background.

2.8. General practitioners' role in mental healthcare

The BELHEATH research project reported that the majority of individuals facing psychological problems have mild or moderate symptoms that can be effectively addressed through **primary care**, with direct access to services, including consultations with general practitioners, without requiring referrals from other physicians (158). Nonetheless, 9% of the population expressed unmet needs for psychological support, attributed to the persistent taboos and stigma surrounding mental health, particularly among those aged 18-29 (158). In Belgium, people of Moroccan origin have an average age of 27, which shows the importance of this issue for these population groups who are more at risk of having unmet psychological needs. Additionally, these taboos show that social perception of mental health care should still be changed to enhance their accessibility (158).

In an increasingly diverse society, General Practitioners (GPs) are encountering a growing and more diverse population, driven by migration and cultural diversity, as highlighted in Chapter 1. As mentioned previously, GPs play a crucial role in

diagnosing, prescribing treatment, and referring patients with mental health issues. In Belgium, a partial stepped-care model is followed, where GPs are meant to serve as the primary entry for accessing a wide range of mental healthcare services and should be inclusive of migrants (163). However, in reality, there is a fragmentation of mental health care into multiple specialities such as first-line psychologists, specialised psychologists, psychiatrists, community mental health centres, and mobile teams, among others. Despite GPs often being the only healthcare providers capable of synthesising medical and sociodemographic information about the patient, many patients end up following care pathways that do not include general practitioners, such as in emergency wards (164).

As outlined in Chapter 2, several studies have pointed to the existence of ethnic disparities in diagnosis (165), treatment, and referral of MEM patients by GPs, as well as other healthcare providers (166-169). As gatekeepers, GPs own the power to either facilitate or obstruct access to further outpatient and residential mental healthcare services. A realistic systematic review has mentioned that general practitioners were frequently mentioned by patients in their Joint Crisis Plan (JCP), a type of Psychiatric Advance Directives³ (PAD) (170). In addition, it has been noted that one of the reasons individuals do not seek psychological help is the lack of accessible support (158). Nevertheless, GPs can serve as the initial point of entry into the healthcare system, providing a crucial first step for individuals in need (171). Consequently, their actions can either reduce or reinforce ethnic inequalities in access to mental healthcare (172). Indeed, GPs' medical decisions may be biased due to unconscious stereotyping beliefs (168, 173). Even well-intentioned GPs, driven by an internal motivation to be unprejudiced and unbiased may apply stereotypes when assessing patients, which in turn could lead to differences in treatment and referral decisions.

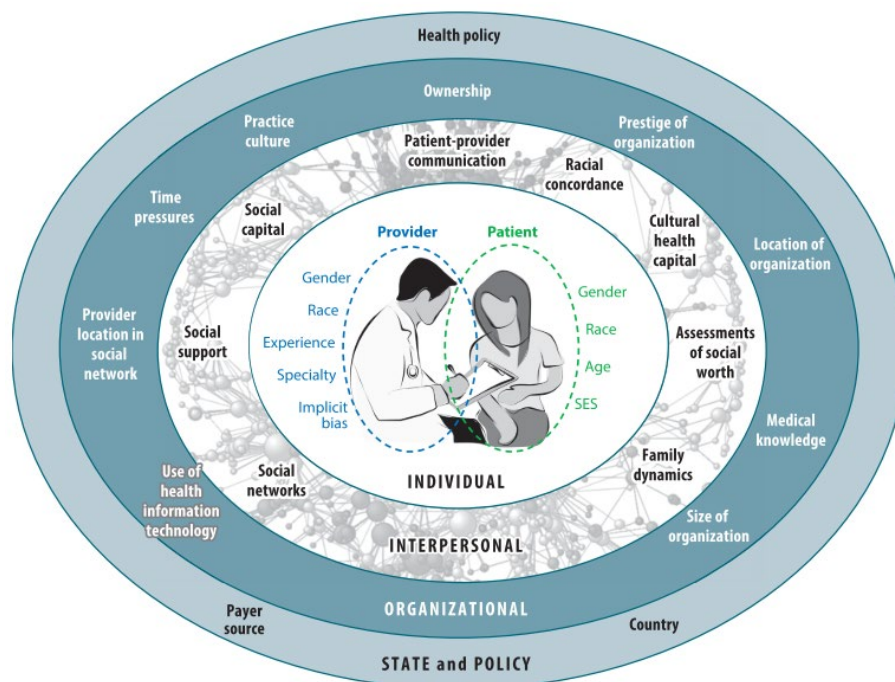
Therefore, the integration of mental health services into GPs' consultation becomes imperative for a holistic approach to addressing mental health concerns in Belgium. We believe that collaboration efforts between mental health providers and primary care providers hold the potential for early identification and prompt intervention. In addition, a previous study has recommended a greater focus on primary care services for MEM groups, particularly those originating from non-Western contexts, such as individuals of Moroccan descent, for example (144). The primary goal of this recommendation is to alleviate the burden of common mental disorders among

³ Psychiatric Advance Directives “are documents that allow users with severe and chronic mental illnesses to notify their treatment preferences for future crisis relapses and to appoint a surrogate decision-maker for a period of incompetence.” (Nicaise et al., 2013).

affected individuals while also reducing the strain on secondary mental health services.

It is precisely for these reasons that this thesis seeks to explore and test our hypotheses and research questions within the framework of GPs' consultations, with the aim of delving into the core of this complex issue. Figure 5 visually outlines the various levels of potential intervention aimed at mitigating ethnic disparities in healthcare. Within the context of this thesis, our primary focus will be directed towards three levels: the individual, interpersonal and organisational dimensions. The state and policy level will receive concise attention within Chapter 8, where we will touch upon this aspect while presenting the recommendations that have emerged from the conclusions drawn in this thesis.

Figure 5 A modified social ecological model of medical decision-making.
Abbreviation: SES, socioeconomic status (174)



Overall, the literature presented in this second chapter does not provide a basis to conclude that all MEM groups carry **an increased risk of mental disorders**. Similarly, it does not suggest that they uniformly experience equivalent levels of **ethnic disparities** in mental health than populations without a migration background. In addition, we have realised that there was no recent study on the potential ethnic disparities in mental health care either in Belgium or in Europe. However, previous studies have already shed light on different risk and protective factors of MEM patients' mental health such as socioeconomic status, legal status, and discrimination that will be further addressed in the next chapter. This chapter will also delve into how ethnicity and migration status are part of the social determinants that shape the unequal opportunities that MEM populations face.

- ⇒ Migrants and ethnic minorities experience different risks in mental health disorders and recent literature on their mental illness risk in Belgium and Europe is unknown.
- ⇒ GPs play a key role in diagnosing, treating, and referring patients with mental health issues, acting as gatekeepers to further mental healthcare services. However, there is a fragmentation of mental healthcare services into various specialities, leading some patients, especially MEM to have unmet psychological needs.
- ⇒ Ethnic disparities in the diagnosis, treatment, and referral of individuals from migrant and ethnic minority (MEM) backgrounds have been reported among GPs and other healthcare providers. The issue is that GPs serve as the first step in entering the healthcare system, potentially addressing the absence of nearby help for those in need of psychological support.



*"We all live on the same planet,
but not in the same world."*
(Cabé & Lefebvre, 2023)

CHAPTER 3

EXPLAINING AND ADDRESSING ETHNIC DISPARITIES

Chapter 3 – Explaining and addressing ethnic disparities

This third chapter outlines the **diverse disparities and challenges** that migrants and ethnic minorities may encounter during their inclusion and integration processes in their host countries. By addressing these challenges, the goal is to shed light on the obstacles and difficulties faced by these individuals as they become part of their new communities. Lastly, this chapter will emphasise several gaps identified in the literature addressing different factors that could affect and/or influence the strength or direction (whether positive or negative) of the relationship between an independent variable (migrant status) and a dependent variable (migrant mental health status or GPs' decisions) (176). This section will focus on certain "factors" contributing to ethnic inequities. These factors will be explored and tested within the scope of this thesis in the following chapters.

3.1. Key determinants of ethnic disparities in mental health(care)

Migrants and ethnic minorities face a range of disparities in accessing fundamental opportunities across multiple domains (including politics, education, housing, labour market, and healthcare), creating complex hurdles in their integration and overall well-being and mental health (4, 177, 178). Ethnic disparities are differences observed for ethnic (minority) groups that are not due to differences in clinical appropriateness, clinical need, or patient preferences (179).

In the following sections, we will briefly explain how legal status, socioeconomic status, and migration could affect the mental health status of people with a migration background. Then we will present more in detail the mediating and moderation determinants of GPs' decisions as contributors to the persistence of ethnic disparities in mental healthcare in Belgium.

3.1.1. Legal status

Legal status, as explained in Chapter 1, is an important aspect as it distinguishes **citizens and non-citizens** and determines access to a wide range of social, political and economic rights. Regarding the **legal residence permit** that asylum seekers apply for, the research has revealed a significant correlation between lacking a legal residence permit and a higher likelihood of not receiving timely treatment. This observation underscores that the absence of a valid residence permit carries the

potential to function as a risk factor for facing disparities in healthcare (180, 181). Another systematic review highlighted a significant association between an **insecure legal status** and **mental health symptoms** (182).

- ⇒ At the systemic level, Belgium has made limited efforts to address the ethnic inequalities faced by MEM (183). For instance, in the realm of **politics**, voting rights for **non-European citizens** in Belgium are only granted for local elections and only after five years of residency (184, 185). In contrast, in regions such as Scotland, many immigrants from non-EU countries attain their political rights more rapidly (17). The repercussions of this political underrepresentation are that migrants are not viewed as potential citizens, being perceived as primarily expected to contribute through labour and production rather than political engagement (186).

In addition, the legal status of individuals can also have an impact on socioeconomic status, as they cannot access the same employment opportunities, or access to social and health services, among others.

3.1.2. Socioeconomic status

Socioeconomic status is defined as a measure of one's combined economic and social status and tends to be positively associated with better health. The three common measures of socioeconomic status are education, income (e.g. the labour market) and occupation (e.g. housing) (187). Existing literature has established that **socioeconomic status** may have a significant influence (positive or negative) in various domains such as MEM's education (188, 189), (mental) healthcare (97, 107, 190-192), housing (178, 193), and the labour market (178, 194).

✓ Education

In the field of **education**, it has been shown that performance gaps between some migrants and non-migrant students remained high (195). In addition, some MEM may face challenges ranging from the limited recognition of foreign qualifications, which hampers their ability to fully engage in educational pursuits (190, 196). Additionally, the perception of foreign education being of lower quality could diminish the economic returns on education for immigrants in Europe (190). Migrants with highly educated parents might also experience diminished social status in host countries, contributing to limited health resources for immigrant families and disparate job and employment prospects that lead to varying levels of wealth (190). Across all levels of education, MEM are more likely to find themselves

in lower-paying jobs with less occupational prestige compared to the host-country populations (197). Paradoxically, even highly educated migrants remain susceptible to economic insecurity, stress and poverty (198, 199). Overall, the literature underscores that MEM populations tend to have lower levels of education than the majority groups (178).

- ⇒ In Belgium, despite a decline observed in the proportion of people of Moroccan or Turkish background without formal education, a substantial number of individuals from these groups remain underrepresented in the labour market, predominantly employed in less favourable segments (41, 107, 200).

✓ Housing

Many people with a migration background also encounter difficulties concerning **housing**. As they seek suitable housing and endeavour to access employment opportunities fitting their qualifications and skills, they often face barriers (201, 202). It is worth noting that housing serves as a pivotal social determinant of health and a crucial element in the integration of migrants into resettlement countries (203). Inadequate housing consistently correlates with **poorer mental health outcomes** and constitutes a significant source of post-migration stress for refugees (98, 112).

- ⇒ Studies conducted in Belgium have highlighted a higher occurrence of discriminatory rental practices toward candidates with Moroccan-sounding names compared to those with Belgian-sounding names (204-206).

✓ Labour market

Certain MEM groups also may face difficulties in economic situations, such as the **labour market**. Ethnic labour market discrimination characterised by differential treatment based on ethnic characteristics, has been identified previously (207). In Europe, labour conditions for **foreign individuals who are non-EU born** are notably inferior to those for the native-born population, resulting in a significant employment rate gap of -8.2% (208). In addition, the mean outcome gap stands at -5.5% between non-EU born populations and native-born populations (208).

- ⇒ In Belgium, this employment rate gap is even more pronounced, standing at -18.1% between the non-EU born and the native-born populations (120).

However, alongside the challenges MEM populations face in terms of socioeconomic and legal status mentioned, it has been shown that the migration process in itself could lead to ethnic disparities in mental health before, during and even after the journey.

3.1.3. Migration

Multiple factors have been identified as contributors to various mental health disorders, such as depression, anxiety and somatic disorders, including the motivations driving migrants to leave their home country, the experiences during the **migration process** itself (both before and during the process), as well as the stressors encountered post-migration (80, 209). Certain traumatic events have been associated with a higher risk of mental disorders among individuals with a migration background, especially refugees and asylum seekers. Depending on the level of hardship encountered during the migration process, it may negatively affect migrants' physical and mental health status (210, 211). A scoping literature review conducted in Europe reported that a significant proportion of traumatic events, around 60%, occur in the migrants' home countries, **before the migration process**, while 89% take place **during the journey** itself (100). Previous studies revealed that **post-migration** conditions, stressors and traumatic events were also associated with symptoms of depression, anxiety, and PTSD (182).

The potential trauma experienced by migrants before, during or after the migration process includes a range of experiences, like **environmental elements**, such as natural disasters (79, 112), experiences of **loneliness and diminished social support** (212, 213), family separation or loss (214, 215), unstable legal status due to prolonged bureaucratic processes and job insecurity (216), and duration of residence (217). These stressors and traumatic events also involve financial hardship, inadequate housing, insecurity, exposure to warfare, violence, trafficking, sexual exploitation, and persecution for political, ethnic religious or other reasons (210, 217, 218), along with stigmatisation and **discrimination** (further elaborated in the subsequent section) (151, 219). Additionally, this may encompass limited access to welfare services, **diverse understanding** of illness and treatment (220), **language skills** (216, 221, 222), acculturation (223), and accumulation of postmigration living difficulties (182, 224), among other challenges. These factors can have deleterious consequences on the mental well-being of individuals (225). While this impact is notably pronounced in refugees and asylum seekers (100), stressful living conditions appear to exhibit a more significant statistical correlation across all international migrants, extending beyond the refugee population (226).

To illustrate the challenges faced by migrants, one can consider the dangerous journeys that children are often compelled to undertake due to the absence of safe and regular migration channels, as documented by Crépeau in the International Organization for Migration report titled “Children on the Move” (227). These young migrants are exceptionally vulnerable to falling victim to violence and abuse during their journeys, particularly unaccompanied or separated children, who may be subjected to human rights violations, such as sexual, economic exploitation and human trafficking. These situations may naturally lead to a lower level of health, both physical and mental. Moreover, many migrant children, often with irregular legal status, lack access to public health services and are unable to afford private medical care, which can have long-term implications (227).

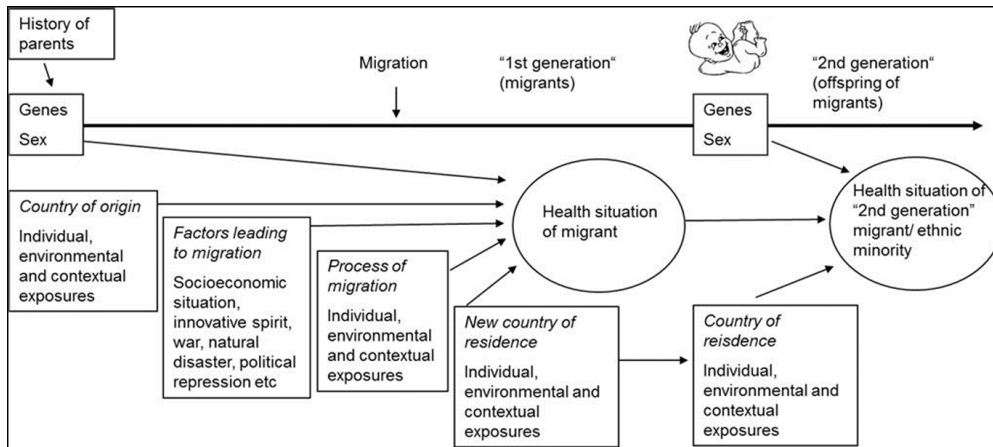
Another example of an arduous journey is the one across the Darién Gap, a 66-mile trek connecting South and Central America. This route exposes migrants to a range of risks including perilous terrains, extreme weather conditions, lack of basic necessities, threats from wildlife like lethal snakes, slippery rocks, and unpredictable rivers. Additionally, there’s a potential for encountering criminal elements, such as cartel members, masked robbers and rapists (228). This perilous journey is particularly taken by migrants who originate from countries like Venezuela or Haiti. In those places, gang violence, failed government, or malnutrition crises make law and make daily life untenable (228). Given the traumatic nature of this journey, we can, therefore, easily imagine that individuals undertaking such pathways to migrate are at higher risk of developing mental distress compared to both native populations and other economic migrants.

Nonetheless, a study concluded that *“the association between some stressors or resources of the postmigration living situation and mental health turns out to be less homogeneous than expected”* (182). This conclusion reminded us of the fact that each group of MEM holds unique characteristics, and their individual resources for coping with these stressful life events can vary significantly (112).

- ⇒ Furthermore, this highlights the importance of considering the specific Belgian context in this dissertation. The country’s unique experience with migration, particularly with Moroccan and Turkish migration backgrounds might differ from those observed in other European countries.

Figure 6 provides a visual representation of how various exposures across the life course can influence migrants’ health, as outlined by Spallek et al. (229). This figure also depicts how the life course of migrants’ parents significantly shapes the well-being of their children, even when migration has not occurred.

Figure 6 Different exposures during the life course on the health of migrants (229)



Alongside the differences in social position and vulnerability MEM groups may grapple with difficulties while adapting to a new **cultural environment**, involving a re-evaluation of their **personal identity**, as they navigate the process of acculturation into the host country's culture (10, 230). **Acculturation**, already defined in Chapter 1, as a multidimensional process involving the convergence of heritage-cultural and receiving-cultural practices, values, customs, behaviours, identifications, and other cultural aspects can pose difficulties (21, 223). Struggle in acculturating to the host country has a direct negative impact on sociocultural and psychological outcomes, such as **well-being**, and may contribute to the development of **stress** and psychological symptoms (10, 81, 231, 232). Moreover, migrants and ethnic minorities who lack a sense of belonging in the host country may experience **socioeconomic and educational disadvantages**, making them particularly vulnerable to mental distress (233). Upon arrival in a new country, MEM may experience differences in customs, social norms, traditions and values, leading to feelings of isolation and difficulties in forming connections with local communities (234). Consequently, the likelihood of anxiety-related symptoms and **depression** tends to increase among migrants and ethnic minorities (234).

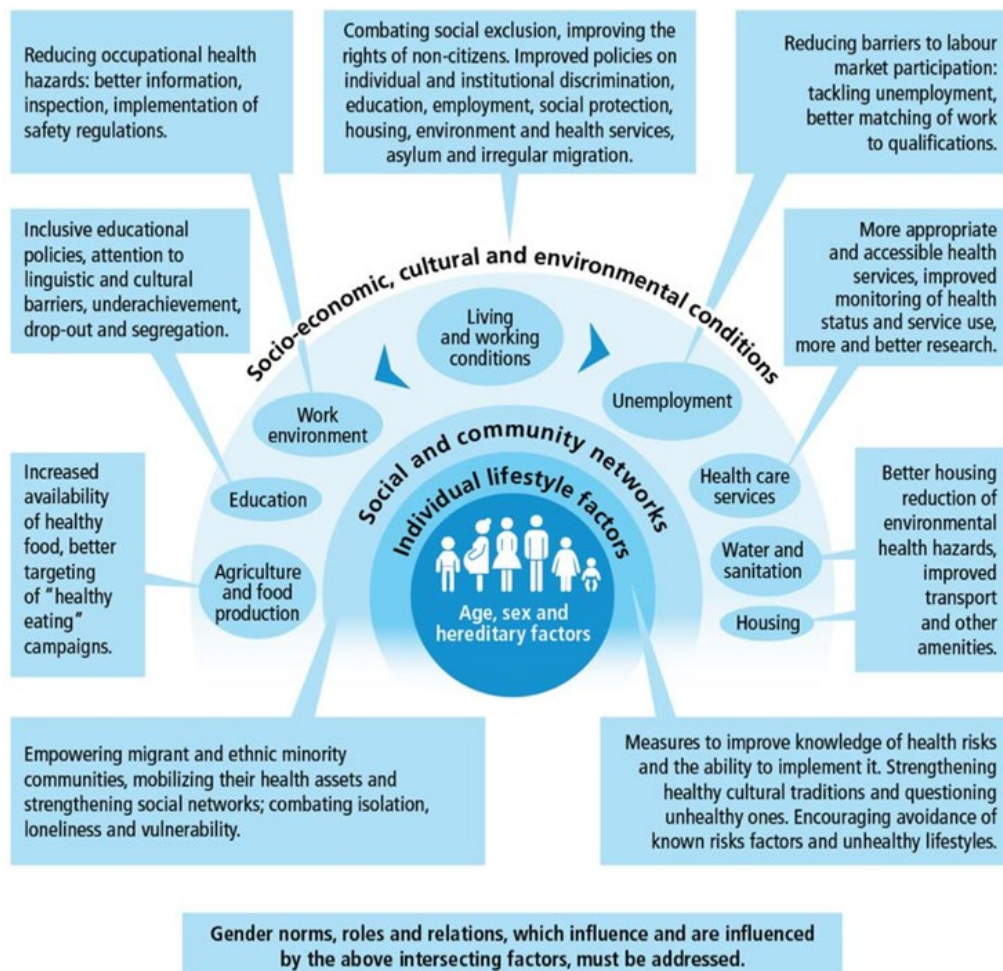
3.1.4. Discrimination, prejudices and stereotypes

Finally, MEM may encounter **discrimination** and prejudice based on their nationality, ethnicity, or migration status. While stereotypes, prejudices and discrimination are related, they hold conceptual distinctions within social psychology. Indeed, prejudices or racism often drive ethnic discriminatory behaviours. Nevertheless, despite members of a group potentially holding similar stereotypes about another ethnic group, only a minority of them will actually exhibit prejudices against that particular group (235). Conversely, it is recognised that discriminatory behaviours can manifest even in the absence of explicit prejudices (236).

Stereotypes represent the content of an individual's beliefs about groups, while stereotyping refers to the processes by which people use these stereotypes to make sense of the world (237). Cultural stereotypes influence how information about an individual is processed and lead to unintended biases in decision-making, hereafter "implicit bias" (238). Everyone is susceptible to these biases, including healthcare providers. **Prejudices** denote positive or negative attitudes or evaluations towards a group, often rooted in stereotypes (239, 240). **Discrimination** is defined as behaviours that systematically advantage or disadvantage a group (241). Ethnic discrimination can manifest in various forms, including exclusion, unequal treatment, denial of access to healthcare services, or dismissive attitudes from staff, all of which have direct and indirect impacts on the health status of the patients (131, 242).

Although this thesis will primarily focus on individual discrimination within the therapeutic relationship between GPs and their patient with a migration background, it is important to emphasise that GPs in Belgium practice in a context where structural racism can also influence their medical practices and decisions. For example, it is essential to mention that as depicted in Figure 7, addressing these inequalities necessitates systemic and macro-level policies and interventions that advocate for ethnic equality in all determinants of health (79, 243-246). Moreover, while progress has been made in tackling ethnic disparities in various domains, achieving substantial change requires a comprehensive "whole of government approach", which can be challenging to sustain in the context of conservative viewpoints prevalent in many sectors of society (247, 248).

Figure 7 Policy measures required to tackle social determinants of health for migrants and ethnic minorities (249)



Alongside the aforementioned determinants that influence ethnic disparities that MEM populations may face in mental health status, it has been shown that they also face disparities in mental healthcare (141, 250, 251).

3.1.5. Mental healthcare

Limited **access** to social, healthcare **services**, health promotion facilities, and health prevention is yet another challenge faced by MEM (252). Legal impediments frequently act as barriers preventing MEM from accessing healthcare services (100, 148). Additionally, a negative correlation has been observed between income levels and the probability of individuals having at least one psychiatric disorder or receiving treatment for mental health conditions (253). As mentioned earlier, certain MEM groups may experience lower socioeconomic status and face legal barriers, which can heighten their susceptibility to mental health disorders and affect their access to treatment. Nonetheless, the extent of this limited access varies across countries, with different nations prioritising different health issues, often failing to adequately address the needs and priorities of migrants (100, 254). Unequal access to these essential services can contribute to the disintegration and hindered socioeconomic progress of these populations.

- ⇒ In Belgium, migrants can access healthcare via the compulsory health insurance system or social assistance. Primary care centres are also accessible to vulnerable populations, especially in metropolitan areas (107). However, a literature review underscored that specific healthcare services remained inaccessible and were significantly underutilised by Moroccan and Turkish migrants (96, 110). In Belgium, a new psychological care agreement is scheduled to be signed between INAMI and mental health networks in January 2024, continuing the work initiated in 2019. The primary goal of the agreement is to make psychological care more accessible, both from a financial perspective and in terms of care organisation. The mental healthcare system has known multiple reforms over the last decades, with the recent one in 2010 which was initiated through experimental projects, entitled “Projets 107”, aiming at transitioning from a hospital-based system to an outpatient and community-oriented approach for individuals with mental illnesses. (255). However, this reform primarily targeted individuals with severe mental health disorders, such as schizophrenia and severe depression, and less so those experiencing common and moderate psychological issues. In response to this gap, in 2016, the Belgian Federal Center for Expertise in Healthcare (KCE) proposed an organizational and funding model for addressing common and moderate psychological problems. Nonetheless,

psychotherapy, which is recommended and proven to be as effective as medication options like antidepressants and tranquilisers, is currently not reimbursed, making it less accessible to the majority of the population, including migrant and ethnic minority populations (256).

Alongside these key determinants contributing to ethnic inequalities in mental health care, another hypothesis is that GPs may have different patterns in treatment and referral to mental services across different racial and ethnic groups that may impede access to these services (126). In that sense, a previous study highlighted that racial and ethnic *“differences emerged (...) with blacks considerably less likely than whites to be offered an appointment”* (150). Medical decisions in diagnosis and reference, which are sometimes affected by racial and ethnic disparities may be exacerbated under time pressure, in case of fatigue, or when there is a lack of guidelines (168, 257). Biased medical decisions and **physician discrimination** are another source of ethnic disparities in mental health care (166-169). A European study reported that 7% of the respondents perceived discrimination in primary healthcare (258), whereas this percentage was increased in ethnic minority respondents. In Belgium, first-generation migrants reported a higher perception of **discrimination** than natives with an OR of 5.1 (95% CI 2.99-8.71) (258). It is noteworthy that Belgium ranked among the countries in the lower quartile of the perceived discrimination score, with only 2.7% of Belgian respondents reporting such experiences, compared to 12.8% in Sweden, for instance.

Chapter 2 pointed out that healthcare providers, such as General Practitioners (GPs), may perpetuate these ethnic inequalities, by unintentionally discriminating against patients with a migration background (259, 260). Some factors exacerbate such unintentional discrimination, like **time pressure** and a **lack of awareness** (172), while others, like training and building trust in the GP-patient relationship, can mitigate these inequalities (261). This thesis will specifically centre its focus on these explanatory factors, investigating them through the perspective of GPs. Importantly, the existing body of research on this particular subject, especially in the context of Europe and Belgium, remains limited, emphasising the significant gap that needs to be addressed. Investigating the GP perspective holds the potential to explore underlying mechanisms that contribute to discriminatory practices within primary mental healthcare, thereby enhancing our understanding of this complex issue.

The following sections will particularly focus on implicit and explicit biases, racial and ethnic concordance, communication, trust and relationship, cultural

competence, and humanization. For each of these moderating factors, the following aspects will be covered:

- ♦ The **definition** of the factor.
- ♦ A **summary** of the existing knowledge concerning the relevance of these factors within the context of (mental) healthcare.
- ♦ **Identifying the gaps** in the current literature that this thesis aims to address within the context of GPs' consultation with patients of migration backgrounds.
- ♦ Where applicable, a **synthesis** of the existing **interventions** to reduce ethnic inequities in (mental) healthcare related to the moderating factors.

3.2. Moderating factors of ethnic disparities in primary mental healthcare

Note that we are not implying any specific order or level of importance among these five factors. We will outline that each of them has the potential to contribute to ethnic disparities in primary mental healthcare, especially within interethnic consultations with general practitioners.

3.2.1. Explicit and implicit bias

Definitions

Implicit ethnic (and racial) biases denote prejudiced attitudes, a tendency to favour one ethnic group over another or stereotypical perceptions of a particular group (the exogroup) and its members. This bias is also described as “*an unconscious response and behaviour that affects interpersonal interactions and clinical decision-making*” (262). Implicit bias is often automatically activated, leading to impaired judgment and negative evaluation of the exogroup (263). However, Karpinski and Steinman (264) introduced a contrasting perspective by suggesting that ethnic and racial biases might be due to ingroup favouritism, involving positive associations with a specific conceptual category (e.g. Native people), rather than being driven by implicit negative feelings towards the outgroup (e.g. people with a Moroccan migration background). In essence, their findings underscore that ethnic and racial bias might emerge due to ingroup favouritism and can manifest even in the absence of negative feelings towards members of the outgroup (264, 265).

The origins of implicit biases can be elucidated through different hypotheses. In the realm of social psychology, distinctions are made within the **identity component** (ingroup vs. outgroup) (266), the **functional component** (cognitive information processing limitations), the **normative component** (conformity within normative context, peers influence, daily practices), the **pursuit of material and symbolic resources** (intergroup conflicts) (236, 267).

The **identity component** revolves around how individuals categorise themselves (endogroup) and others (exogroup) based on shared group attributes (such as age, gender, ethnicity, nationality, religion, and more). Implicit bias can emerge within this framework due to several psychological processes, such as ingroup favouritism, where individuals develop positive attitudes and preferences towards their own group. Through ingroup favouritism, individuals seek to reinforce their social identity within their group (268). Outgroup discrimination, on the other hand, occurs when ingroup members treat the outgroup less favourably, and while it's less socially accepted, it tends to arise in situations of conflict between groups (269-272). These conflicts can be tied to competition for material or symbolic resources (prestige, money, goods, land, status), or arise in situations involving perceived threats related to crime or power (268, 272, 273). Furthermore, the evolution of ingroup favouritism may result from social pressure exerted by peers, valuing anti-discrimination norms, and acknowledging the right to ethnic diversity in our multicultural society (274).

The literature also presents the concept of "*positive discrimination*", which involves implementing practices or policies to provide **preferential treatment** to historically disadvantaged or discriminated individuals, with the aim of reducing ethnic disparities (275). On one hand, positive discrimination can work to promote social equality, but on the other hand, it may potentially lead to reverse discrimination, undermine the principle of meritocracy (a system in which people get success or power because of their abilities), or perpetuate stereotypes (275). An example of positive discrimination would be the implementation of quotas to enhance access to education, the labour market, positions of responsibility, or within the realm of healthcare professionals (275).

In addition to the aspect of social identity, due to the **overwhelming volume of information** individuals encounter daily, there is a need to simplify it (267). Nevertheless, this process of **categorisation** can unintentionally result in a broad generalisation of characteristics across entire groups, thereby contributing to the development of biases.

Implicit biases in the patient-provider relationship can lead to discrimination, and discrimination is known to increase the risk of mental illness (276). Moreover, discrimination arises when biases translate into unequal treatment based on physical characteristics or membership in specific social groups (277).

In contrast, **explicit** ethnic biases refer to openly expressed feelings communicated verbally, in writing, or through symbols. Notably, “explicit” does not necessarily imply obviousness; it encompasses subtler “coded” language or feelings that can be inferred (278).

What is known

Implicit and explicit biases present a significant challenge as they have the potential to impact anyone, including (mental) healthcare professionals (279). Consequently, biases may sometimes lead to variations in medical decisions, disparities in **empathy**, differential drug prescriptions, lower patient satisfaction, lower patient interactions with their physicians, and even less eye contact (260, 280-283), thereby contributing to ethnic inequalities and unintentional discrimination within (mental) healthcare (276, 284).

In this vein, a review demonstrated a significant association between implicit racial and ethnic bias among providers and suboptimal decision-making quality in terms of treatment decisions, treatment adherence to medical prescriptions, and patient health outcomes (263). Additionally, a study exposed a positive link between implicit pro-White bias and a decrease in the prescription of pain narcotics for African American patients, particularly following surgery, by paediatricians (285). Another systematic review found an **association** between an **implicit preference** for **White individuals** and a greater likelihood of administering thrombolysis treatment for myocardial issues in White patients when compared to Black patients (166).

However, it is important to acknowledge that several studies have not conclusively demonstrated a notable connection between implicit ethnic and racial biases and medical decisions. To elaborate, systematic reviews have unveiled that physicians exhibit marginal to moderate levels of implicit bias against Black, Hispanic, and dark-skinned individuals that mirror those observed in the general population (166, 286). Furthermore, systematic reviews and studies have **failed** to substantiate any **impact of providers’ implicit biases** on their decision-making processes in treatment and healthcare outcomes, spanning various healthcare domains such as emergency medicine (166, 263), pain management, attention deficit hyperactivity disorder (287, 288), primary care, internal medicine, and spinal cord injury (263).

Notwithstanding, these results are contradicted by the findings from the systematic review undertaken by FitzGerald and Hurst (259), which yielded two key outcomes. Initially, the authors identified a significant **positive relationship** between the levels of implicit bias and a decline in the quality of care provided. Subsequently, certain clinical decisions, including diagnoses and treatments, exhibited a correlation with implicit biases and care levels in certain circumstances. The authors argued that further research was needed to investigate the specific circumstances under which implicit biases influenced medical decision-making and emphasised the necessity to address the role of implicit biases in healthcare disparities (259).

Indeed, implicit biases often emerge in ambiguous **contexts**, such as when practice guidelines are lacking or evidence-based medicine is disregarded. They also come into play when individuals are preoccupied, anxious, rushed, tired, or distracted. Moreover, healthcare providers, including GPs, can unintentionally stereotype patients and resort to cognitive shortcuts influenced by their training, work environment, social context, and organisational setting (289). Nonetheless, Blair (289) underscores that biases and stereotypes are **not static mental states**; they are susceptible to social conditions.

Knowledge gap and how this thesis addresses it

Earlier American research highlighted **significant implicit** ethnic bias among healthcare professionals against MEM groups, such as African Americans. However, this research revealed low levels of explicit bias against this ethnic group (260, 287). European empirical research on these issues remains limited.

A study comparing healthcare professionals' racial and ethnic biases in the United States (US) and France concluded that healthcare providers' biases differed between cultures and countries (290). This study revealed that clinicians' expectations and perceptions of their patients are influenced by their patient's race in the US, leading to **negative perceptions** about Black patients. The study's authors discovered that Black patients were perceived as less personally responsible for their health compared to White patients. Consequently, they were considered **less likely to adhere to treatment** and were met with lower expectations for improvement when compared to White patients. However, this racial and ethnic bias did not manifest in a similar way in France, where the French clinicians did not significantly differentiate between Black and White patients in terms of improvement or treatment adherence (290). As a result, the understanding of racial and ethnic bias cannot be extrapolated beyond the US without implementing measures, interventions, and policies tailored to the specific context of each country. These approaches should be culturally adapted to effectively address

racial and ethnic biases within the unique context of a given nation or organisation (290). This conclusion aligns with earlier research findings, which suggest that the racial and ethnic biases exhibited by American healthcare professionals are consistent with societal racism. This influences clinicians' viewpoints regarding their patients, thereby influencing the perspective through which medical decisions are made (290, 291). These findings underscore the need for further research to delve into healthcare providers' biases across various healthcare settings, diverse environments, and different population groups. Such exploration is essential due to the contextual dependency of the mechanisms that give rise to these biases.

- ⇒ This thesis seeks to bridge this gap by addressing three research questions related to biases in ethnic healthcare: i) To what extent do Belgian trainee GPs exhibit implicit and explicit biases in interethnic consultations? This question is addressed in Chapter 5, ii) is there a correlation between higher implicit biases and increased expression of explicit biases among GPs, and iii) what are the implications for medical decisions in the context of mental healthcare?
- ⇒ Therefore, this dissertation aims to measure the extent of implicit and explicit biases among Belgian healthcare providers, particularly trainee GPs, in interethnic consultations. Further details are provided in Chapter 5.

Empirical evidence on the **effectiveness** of strategies to tackle provider bias is scarce. Addressing this gap requires discovering and empirically testing strategies to effectively reduce these biases. One explored strategy involves "*blurring the line between ingroup and outgroup by focusing on common identities*" (260). While numerous studies have proposed interventions and recommendations to reduce providers' implicit biases during interethnic consultations, current interventions have yet to demonstrate behavioural changes in clinical or learning environments (292).

- ⇒ In this thesis, an innovative empirical intervention is tested within GPs' interethnic consultations to reduce ethnic disparities in mental healthcare. This hypothesis is further explored in Section 3.2.5 and Chapter 7.

Synthesis of the existing interventions

Due to the relationship between healthcare professionals' bias and patients' perceptions of poorer communication, lower quality care (293), less satisfaction with physicians holding high implicit ethnic biases (282), and discrimination (179, 294), providers' implicit bias may affect the patient's behaviour in terms of

adherence, return for follow-up, or trust, thereby enhancing ethnic disparities in healthcare. Therefore, an explosion of empirical efforts to reduce implicit biases has been observed in the literature (141). Based upon theories explaining the origins of implicit biases, literature has identified a number of strategies and interventions aimed at addressing and mitigating biases among healthcare providers, at least for a short time (172, 238, 261, 263, 291, 295-297). The following sections outline significant interventions and recommendations.

✓ Awareness and motivation

Given that implicit biases operate on an unconscious level, they are automatically triggered and reinforced, especially under time pressure – an aspect frequently encountered by general practitioners during their consultations. Therefore, raising **awareness** among healthcare professionals about their biases is a fundamental initial step. Researcher considered implicit bias as a “habit of mind” that needs to be changed to reduce their activation in healthcare consultations (298). Indeed, to activate a behaviour change, individuals need to be aware of their habitual engagement and be provided with strategies to increase self-efficacy to engage in a new desirable behaviour, according to Tabayon Nabavi and Bijandi (299).

In order to have successful interventions, Burgess and colleagues (261) suggested that sufficient **motivation**, cognitive resources, and effort, were necessary to inhibit prejudices and stereotypes on which implicit biases are constructed. Further, people need to be aware of their biases in order to tackle their consequences on the outgroup members (300).

Healthcare professionals need to recognise the potential consequences of their biases and be **motivated** to actively work towards reducing them (260).

✓ Individuation

As opposed to categorisation, encouraging cognitive strategies of **individuation**, where healthcare professionals focus on individual attributes rather than generalising group attributes (such as gender, ethnicity, or age) and making efforts to make it more salient in decision-making (261). This intervention has been tested previously among two groups of Caucasian individuals that were exposed to the same African American faces in training, with either an individuation condition (participants had to discriminate two African American faces), or a categorisation condition (participants had to categorise faces as African American or not). During the pre- and post-training, researchers measured the Other-Race Effect and they discovered that within the “individuation condition” group, participants showed a

reduction of socio-cognitive implicit racial and ethnic bias, highlighting that implicit racial and ethnic bias were malleable perceptual skills that can be modified with relatively little training (301), as it was seen elsewhere (260).

✓ Socialising

The “socialising” intervention, also referred to as “intergroup approaches”, or “contact hypothesis”, is grounded in the theory that individuals tend to exhibit preferences in perception and behaviour towards their own groups as opposed to others. The contact hypothesis, formulated by Allport in 1954, suggests that building positive relationships and facilitating social interactions with members of the “outgroup” can effectively reduce implicit biases, particularly among individuals who share equal status, common goals, cooperative attitudes, and sanction by authority (302-307). Empirical testing of this intervention was conducted by Cook (308) within the context of the labour market. In this study, a Black co-worker was paired with a White student who had both been hired for part-time positions in railroad company management. At both the conclusion of the study and several months later, participants were required to complete a racial attitudes scale, which they had initially filled out before the experiment. The results revealed consistent evidence that participants held significantly more favourable opinions of their Black co-workers in terms of attractiveness, likability, and competence under the optimal conditions prescribed by the contact hypothesis (308).

These findings were corroborated by an additional study that explored the efficacy of employing imagining intergroup contact as an alternative means of reducing prejudice when actual contact between groups was not feasible (309). Similarly, another study within the realm of mental healthcare, concluded that increasing interactions with patients with mental health disorders was an **effective intervention** anti-stigma (310).

Among healthcare professionals, a comparative exploration of 17 interventions aimed at reducing implicit racial and ethnic preferences revealed that increasing contact with outgroup members under favourable conditions can reduce implicit biases (Allport, 1954 cited by Lai et al. (311)).

✓ Perspective taking

Another intervention is **perspective taking** which entails envisioning another person’s viewpoint and consciously considering the perspectives of individuals involved, all with the aim of reducing implicit bias in social interactions (312, 313). This intervention was tested in a clinical setting (314), where nurses were shown

either White or Black patients with genuine expressions of pain and asked how much pain medication they recommended. The authors concluded that participants exhibited significant pro-White pain treatment biases, while those engaged in perspective-taking intervention, such as empathy inducing with an additional instruction: *“attempt to imagine how each of your patients feels while you are examining them”*, exhibited upwards of a 55% reduction in pain treatment bias in comparison to controls.

✓ Stereotype replacement

Another intervention that was previously tested is based on **stereotype replacement**. It consists of replacing stereotypical responses to bias with non-stereotypical ones (292). This intervention aims to imagine an example of out-group members who counter popularly held stereotypes, for instance, the outgroup members can be famous or non-famous (e.g. a personal friend with a migration background) (298). This approach accentuates positive examples and makes them readily available when questioning the legitimacy of a stereotype. This intervention was also shown as effective in the study of Devine and colleagues (298) explained hereafter.

The challenge to reduce implicit bias in healthcare is that, according to the review of Vela et al. (292), most of these interventions did not show **sustainable** changes in the behaviour of healthcare professionals, except in one study, conducted by Devine et al. (298) in 2012. This 12-week longitudinal study compared a group of non-Black psychological students who completed a training on strategies to reduce implicit bias (assessed by an IAT, Implicit Association Test), and a control group who did not receive the intervention. The intervention consisted in a 45-minute narrated and interactive presentation separated into education and training sections. The training included a list of five strategies culled from the literature and adapted for the intervention (stereotype replacement, counter-stereotype imaging, individuation, perspective taking, increasing opportunities for contact), with concrete examples of everyday situations and participants had to generate situations themselves in order to apply the strategies learned. The results of this study are the only one that provided evidence for the effectiveness of multifaced intervention in promoting enduring reductions in implicit bias after 12 weeks (298).

However, certain studies yielded to ineffective outcomes when attempting to reduce biases through training. In some cases, biases have even been observed to potentially increase during the training (296). Chapman explained it as *“physicians training emphasises group level information, like population risk factors, and may expose trainees to minorities in unfavourable circumstances of illness or addiction,*

reinforcing stereotypes” (238). This can also be explained by the fact that **implicit behaviours** are developed early in life. Children as young as 3 years old throughout the world begin forming these behaviours. They continue to reinforce over a long period through repeated exposure. Various individual factors, including age, ethnicity, and gender, as well as **contextual** and **organisational** factors like time pressure, location, type of practice, media, lack of guidelines, and structural racism, contribute to the persistence of implicit bias (315). As a result, changing cognitive habits associated with implicit bias can be challenging.

Additionally, previous reviews have been conducted on the sustainability of unconscious behaviour changes and they highlighted that the mind’s prejudices remain hard to change despite efforts to alter them (316). In addition, there are no robust data to support many interventions, although the **perspective taking** strategy was more successful than the counter-stereotypic imaging strategy (259). A review concluded that *“the interactions between multiple patient characteristics and between healthcare professional reveal the complexity of the phenomenon of implicit bias and its influence on clinician-patient interaction”* (259). Another systematic review on implicit bias in healthcare underlines the complexity of the concept and its interaction with healthcare decision-making (259).

The review suggests that combining Implicit Association Test (IAT) with real-world treatment quality assessments yields convincing results (259). It also highlights the need for methodological consistency in testing implicit bias in healthcare.

These interventions were predominantly tested in the context of the USA, with limited exploration in the European context. Yet, the USA setting is coping with different groups (racial groups, such as Hispanic and Latino, Black, Asian, and multiple race groups) and counts with a health care system which is known to be highly fragmented and unequal. Therefore, it is important to investigate different healthcare systems, such as the Belgian one, as emphasised in this dissertation.

3.2.2. Racial and ethnic concordance

Definitions

An important aspect that moderates the (mental) health of migrants and ethnic minorities is the racial and ethnic concordance, wherein patients and healthcare professionals share the same racial or ethnic background. Racial concordance is defined as *“having a shared identity between a physician and a patient regarding their race whereas racial discordance refers to patients and physicians having different racial identities”* (317).

What is known

Several studies carried out in the US have investigated the impact of **racial and ethnic concordance** on healthcare quality and ethnic disparities in healthcare (317-323). A study analysing data from the Commonwealth Fund's Minority Health Survey discovered that noninstitutionalised adults in the US perceived lower healthcare quality in racially discordant patient-provider relationships, in comparison to concordant ones (321). To elaborate, Black patients who shared the same racial background as their physicians gave higher ratings for healthcare provision and communication aspects, such as respectful treatment, explaining medical problems, listening to their concerns, and accessibility. For Hispanics with Hispanic physicians, there was no significant difference in rating for the physicians compared to those with non-Hispanic physicians, though they tended to express higher overall satisfaction with their healthcare. Racial concordance among white patients was no longer strongly correlated with excellent physician ratings for aspects like respectful treatment or clear explanations (321). Notably, racial concordance did not influence the delay in seeking care across racial groups (321).

Another study reinforced these results, revealing that patients who had the ability to choose their physician were more inclined to select one of their own race/ethnicity, particularly among white respondents (319). The study authors noted greater satisfaction ratings for African American GPs and lower satisfaction ratings for Asians/Pacific Islander GPs in comparison to White GPs. Asian Americans also reported lower satisfaction compared to Whites. Additionally, the findings indicated higher satisfaction among respondents with higher incomes (319).

A systematic review demonstrated that *"Black patients consistently experienced poorer communication quality, information-giving, patient participation, and participatory decision-making than white patients"* (317). Cooper et al. (318) explored how racial and ethnic concordance between African-American patients and physicians impacted patient-centred communication. The authors highlighted that concordant consultations with African American patients were characterised by longer duration, more positive affect, and improved continuity of care (318). They further specified that *"the association between race/ethnic concordance and the higher patient ratings of care was independent of patient-centered communication, suggesting that other factors, such as patients and physician attitudes, may interfere in this relation"* (318). Another study supported this finding, also revealing that predominantly White physicians' racial stereotyping of African-American patients was influenced by their behaviour in delivering healthcare, potentially explaining why some **doctors spent less time with African-American patients compared to White patients** (324).

However, a study conducted by Beach and colleagues (325), exploring potential ethnic and racial differences in Black patient-provider communication did not identify an association between race/ethnicity and measures of communication, compared with White patient-provider communication (325). Additionally, this study highlighted that physicians exhibit more verbal dominance with Black patients, and no association between patient race/ethnicity and consultation length was pointed out. Nevertheless, a study shed light on reduced discussions about depression in GP consultations with Black patients, without any racial differences in consultation duration (326).

Addressing these nuanced findings, a systematic review by Shen and Peterson (317) showed that these differences in patient-reported communication quality, satisfaction, partnership building, positive and negative talk, length of visit, and talk-time ratio were somewhat more varied. The authors argued that the inconsistency could be attributed to communication measurement variations across studies (317).

While some previous research highlighted a positive association between racial concordance, healthcare, communication, and satisfaction, a study showed that this association vanished after controlling for other sociodemographic factors (323). Therefore, it seems that further investigation into these factors is needed.

Knowledge gap and how this thesis addresses it

The exploration of racial and ethnic concordance within (mental) healthcare, particularly in the context of Europe, necessitates further research to demonstrate its implications and nuances within diverse societal landscapes. While existing studies have primarily originated from other regions, such as the United States, the dynamics of racial and ethnic concordance may differ substantially in Europe due to distinct cultural, historical, and healthcare delivery contexts. Moreover, to the best of our knowledge, little has been explored on the effect of racial and ethnic concordance in mental healthcare. However, it is known that mental health definition, well-being and symptom expression are linked to individuals' cultural norms, beliefs, and stigma (10, 327, 328), which can significantly influence how individuals seek, perceive and respond to treatment in primary mental healthcare (10). Consequently, mental health disorder diagnoses may be influenced by the cultural concept of distress, which can vary among different cultural groups experiences, understanding, communicate of suffering, behavioural problems, and emotions in diverse ways (329). For instance, in Moroccan culture, experiences like hearing voices, seeing things or deceased individuals may signify symptoms of emotional distress or be part of what is culturally recognised as a “dissociative”

possession state. Another crucial area for potential misinterpretation of symptoms lies in assessing the presence or absence of depressive symptoms. In the Berber language, which is widely spoken among Moroccan migrant populations in Belgium, France, and the Netherlands, there is no direct equivalent for the term "depression," and addressing such emotions is considered culturally sensitive, as documented in a study (330). Therefore, clinicians must approach the evaluation of depressive symptoms with cultural sensitivity and consider alternative expressions of emotional distress.

The challenge in a racial and ethnic discordant GP's consultation may also lie in the lack of knowledge about the cultural norms, values, and practices of different cultural groups among healthcare providers. This leads to significant issues in diagnosing, treating, and referring mental health problems (327). In addition, no significant moderating effect of patient-centred communication was found in the association between ethnic concordance and patient ratings of care (318). The authors suggested that other factors such as healthcare professionals attitudes may influence this relationship (318).

- ⇒ Within the framework of this thesis, we aimed to address the racial and ethnic concordance as a moderating factor in the GP's decisions in the case of mental health disorders.

Synthesis of the existing interventions

As highlighted in Section 3.2, previous research supported the significance of interethnic contacts, particularly through friendship, in improving **intergroup attitudes** in order to improve the relationship with members of the "outgroup" (303). In addition, the report *Unequal Treatment* by the Institute of Medicine recommended increasing the proportion of underrepresented MEM among healthcare professionals in order to improve the healthcare experiences for these populations (179). This recommendation was supported by another source, with the consensus that adopting this approach would serve as the most effective method enhancing healthcare interactions within ethnic and migrant background populations (318). Another proposal entailed enhancing the ability of healthcare providers to effectively interact with racial and ethnic discordant patients (319).

- ⇒ In this thesis, in Chapter 5, we tested a hypothesis in which GPs with a higher frequency of intercultural contact may have lower levels of implicit preferences for their own group, while those with less frequency of intercultural may exhibit more implicit and explicit preferences towards the

outgroup. Additionally, within Chapter 6, we hypothesised that ethnic concordant GPs had lower levels of implicit ethnic biases than ethnic discordant GPs.

However, other authors did not evidence an effective effect of racial and ethnic concordance in health care, especially when the health problem was grounded in cultural norms or values, as mental disorders could be (192, 331).

Therefore, there are multiple factors that may interfere with the racial and ethnic concordance of the provider-patient relationship, that may influence the medical decisions. The following sections will address some of these factors.

3.2.3. Communication, trust and relationship

Definitions

Communication in healthcare refers to the exchange of information, ideas, and emotions between healthcare professionals and patients, with the aim of enhancing individual and population health (332). Effective communication includes both **verbal and nonverbal interactions**, active listening, and clear explanations of medical information regarding diagnosis and treatment prescriptions (333). Within the context of the GP-patient relationship, communication between a health provider, like a GP, and a patient plays a key role in fostering trust and mutual comprehension (334).

Interpersonal trust, as outlined by Cook (334), denotes the willingness to exhibit vulnerability to another individual. In the field of healthcare, for instance, individuals with mental health problems entrust their GPs with the responsibility of accurate diagnosis, effective treatment, and appropriate referrals to mental healthcare professionals and services (335). However, a synthetic review titled “Fifty Years of Trust Research in Health Care” underscores the absence of a unanimous definition for trust, along with a lack of consensus on its key attributes (336). This review points out that Cook’s definition (334) might not comprehensively grasp the intricate trust relationship between clinicians and patients, particularly concerning the vulnerability clinicians experience within this relationship (336).

In an alternative vein, Thom introduced a definition of trust, characterising it as “*an expectation that the other person will behave in a way that is beneficial, or at least not harmful, and allows for risks to be taken based on this expectation*” (337).

The **healthcare professional-patient relationship** intertwines with concepts like therapeutic alliance, continuity of care, and patient-centred care, all contributing to enhanced **clinical outcomes** (338).

What is known

A significant association between the physician-patient relationship and patients' **beliefs** about the **usefulness of treatment** ($r=0.63$, $p\text{-value} < 0.001$), and **patient adherence** ($r=0.53$, $p\text{-value} < 0.001$) has been established by a prior study (339). This finding is consistent with other research stressing the **importance of trust** in healthcare relationships and its impact on **patient satisfaction** and treatment **compliance** (340, 341). Refugees, in a Danish study, emphasised the importance of consistently available staff to foster the development of trusting relationships (143).

Interestingly, a study on **medical mistrust** among MEM populations showed that people with migration and ethnic backgrounds had significantly **higher levels of medical mistrust** than the population without a MEM background (342). Among African American and Latino populations, a lack of trust in healthcare professionals, coupled with concerns about their competence, reduces their sense of comfort in engaging with these professionals (126, 343). Further, individuals from MEM backgrounds often express **mistrust** towards specialised mental healthcare services due to their perceived lack of consideration for ethnic diversity (344). Similarly, research with African American and Latino communities in the US also raised issues of mistrust of clinicians as a product of historical persecution as well as current issues of racism and discrimination (345).

In the context of **low-trust relationships** with healthcare professionals, patients are likely to withhold information (346). Previous findings have indicated that consultations marked by discrimination and reduced trust notably impact patients' willingness to provide accurate data, which is vital for medical decisions and patient well-being (346). Patients from migrant and ethnic groups, who have experienced discrimination, may be disproportionately affected by systematic instances of missing data in their medical records, according to a study (346).

Higher mean scores in self-reported physical and mental health were correlated with improved healthcare experiences among MEM individuals, including enhanced **communication** with healthcare professionals (323). A Danish study delving into the experiences of GPs in caring for refugees with mental health issues identified communication as a central theme, emphasising that "*communication entails more than sharing a common language*" (347). Hence, fostering effective

communication among healthcare professionals and cultivating a trustful relationship with patients remains of paramount importance.

Two key components for a positive provider-patient relationship have been highlighted in the literature: **accessibility** and **communication** (348). However, it has been shown that **language barriers** can impede MEM access to education, employment, social services and **healthcare**, thereby obstructing social interaction and integration (112, 349-351). Previous studies highlighted that limited language proficiency often leads to delayed access to necessary healthcare services, and difficulties when ascertaining a diagnosis, and it hampers the development of a therapeutic relationship between migrant patients and healthcare providers (221, 352). This language barrier also obstructs effective **communication**, resulting in suboptimal care and dissatisfaction with the quality of healthcare received (221). Moreover, language difficulties coupled with **cultural differences**, may contribute to issues concerning the **understanding** and **compliance** of migrant and ethnic minority patients (353). A systematic review of the impact of **language barriers** in healthcare concluded that such barriers lead to **miscommunication**, reducing both parties' **satisfaction** and decreasing the **quality of healthcare** delivery and patient safety (354). Additionally, as mentioned earlier, ethnic disparities might arise due to divergent perceptions of mental illness between patients and healthcare providers. This incongruence can impact **symptom presentation** and **communication**, which implies more than sharing the same language (347).

In terms of mutual trust within the provider-patient relationship, a scoping review reported that physicians may need to have confidence in their patients' reliability to accurately report their symptoms (355). Additionally, the review found that prevalent themes regarding trust included patients withholding information about stigmatised conditions, physician biases aligned with prejudices and racism, and miscommunications due to cultural or linguistic differences between physicians and patients (355).

Further, previous research has underlined the importance of **providers' trust** in their patients as it may have a positive impact on the patients' trust itself (337, 356). An investigation on physicians' trust in socially marginalised patients when prescribing opioid analgesics, reported that patients with African American backgrounds were associated with lower scores of physician trust assessment, in comparison with White patients (357).

Knowledge gap and how this thesis addresses it

An important gap identified in the literature is the varied expression of mental health symptoms, such as *susto*⁴, for instance (329, 358). These nuances can **complicate effective communication** and **trust-building** between healthcare providers and individuals. Consequently, MEM groups with mental health disorders confront a threefold challenge in cultivating a trusting relationship with their GPs: i) they encounter multiple obstacles hindering communication, such as language barriers; ii) they face barriers to accessing healthcare due to providers' biases, among other multiple factors; and, iii) they bring their own cultural perspectives of mental health into the host country, thereby increasing the potential for misunderstandings with their healthcare professionals (359). Additionally, language barriers coupled with cultural differences, may contribute to issues concerning the understanding and compliance of MEM (360).

It is important to note that in (mental) healthcare management, the assessment of symptom severity can be influenced by the effectiveness of communication with the patient (361). Further, lower ratings of communication effectiveness are associated with a **higher likelihood of symptom exaggeration**, which may result in misunderstandings between physicians and patients (361).

- ⇒ Therefore, in this thesis, we accounted for the GPs' trustworthiness in their MEM patients with mental health disorders, in the assessment of symptom severity. This assessment is important in the diagnosis of such illness, as it may influence the medical decisions on the levels of care (362). The originality of this thesis is that the concept of trust is assessed on the professionals' side, rather than on the patient's side, as it has been largely studied before.

Synthesis of the existing interventions

Previous interventions to address miscommunication, mistrust and improvement of provider-patient relationship have reported differential health outcomes and levels of effectiveness.

Firstly, to address the language barriers leading to miscommunication, suboptimal care and dissatisfaction with the quality of healthcare received (141), a systematic

⁴ "Susto" is a conceptualization of distress in Latin America, which encompasses a wide variety of psychological and somatic symptoms (e.g. somatic disorder, depressive disorder, and PTSD).

review highlighted several interventions to reduce these barriers. Al Shamsi (354) reported in his review on the implications of language barriers for healthcare, that the implementation of online translation tools such as Google Translate may increase the **satisfaction** of both medical providers and patients, and that *“it improved the quality of healthcare delivery and patient safety”* (354).

Nonetheless, as previously mentioned, general practitioners have emphasised that effective communication with refugees facing mental health challenges *“entails more than sharing a common language”* (347). The use of significant translation tools in such cases may encounter important limitations, particularly within the context of interethnic mental healthcare. Furthermore, when relying on a clear understanding of our intended message, we lack control over the accuracy of the translation, potentially resulting in misunderstandings with patients.

For that reason, the utilisation of professional interpreters may appear to be the solution to overcome these issues (363). Indeed, a positive association between the use of an interpreter and health outcomes among MEM groups was evidenced. These outcomes are related to higher **satisfaction**, an improvement in **quality of care**, and the **accuracy of treatment** (364, 365), adherence to treatment, and timely follow-up (363). An interpreter may also improve the continuity of care, the healthcare professionals’ knowledge of other cultures (e.g. values, health practices, body language), and personal quality (sensitivity, cultural humility, empathy) (366). Obviously, an interpreter also improves the effectiveness of communication, by reducing mistranslations and misunderstandings of symptoms that may result in unmet needs, medical errors, and in the worst case, death (363).

However, the presence of an **interpreter** can also introduce several challenges, including an increase in the time required for consultations, extended duration of appointments, potential misunderstandings of health concepts, cultural values, and patient symptoms. It may also be tricky when talking about psychological health problems, traumatic experiences, somatisation, social difficulties and abuse, but also when talking about physical health issues, for instance, communicable diseases, injuries, and mutilation (364, 366). Fatahi (365) reported that the presence of an interpreter in the GPs’ consultation transforms a dyadic interaction into a triadic one, therefore complexifying the communication with the patients. The authors added that *“the choice of interpreter should be individualized, minimizing the influence of differences in factors such as sex, ethnic background, and native language between patient and interpreter”* (365).

A Canadian study identified some key difficulties while using an interpreter with immigrant workers (367). Among these difficulties, authors identified the varying

styles of interpretation, the interruptions during conversation, the longer of the interviews, and miscommunication with interpreters, among others. In addition, this study shed light on difficulties encountered while using a family member as an interpreter, and they found discomfort on the part of workers in disclosing certain types of information such as **mental health problems**; and undue hardship for the family interpreters who had to miss school to interpret during medical or case manager consultation (367).

However, these interventions are closely intertwined with those aiming at improving **cultural competence** among healthcare professionals, a topic that is addressed in the subsequent section.

3.2.4. Cultural competence

Definitions

Despite the large body of knowledge on cultural competence literature, its definition remains broad, and researchers still struggle to measure it. Even if cultural competence has a different definition and approach than multicultural competence, transcultural competence, cultural sensitivity, cultural relevance or cultural responsiveness, these concepts all share a common concern which is to develop “*the ability to **work and communicate effectively and appropriately with people from culturally different background***” (368). According to Kirmayer (369), cultural competence refers to interpersonal skills and “*the ability to effectively refine and use one’s **empathic** capacity, an emphasis on **professional competence** in the domain of **culture risks** reifying appropriating rather than respecting and engaging the other’s lifeworld*”.

What is known

In the field of mental healthcare for patients from migrant and ethnic minority backgrounds, previous research underlined the growing importance of cultural competence in improving various aspects of (mental) health treatment (4, 153, 370, 371). As an example, one study introduced a Turkish psychologist as a cultural competence intervention, resulting in a significant decrease in hospitalisation periods for Turkish non-schizophrenic in-patients and improved rehabilitation outcomes for Turkish patients with schizophrenia (112). Another study on immigrant women in Australia highlights their discomfort in discussing mental health issues in a foreign language and the need for cultural competence interventions, such as interpreters during consultations (372).

In an earlier study, it was hypothesised that using a culturally adapted interview tool would lead to Moroccan patients receiving lower ratings for psychiatric symptoms and higher ratings for effective symptoms compared to native Dutch patients (373). The results supported these hypotheses, suggesting that disparities in symptom interpretation, especially considering culturally relevant information, may influence outcomes. These findings raise concerns about the reliability of higher schizophrenia prevalence rates observed in certain MEM populations within studies that employed interviews and questionnaires not tailored or validated for these specific populations of interest (330).

Overall, these findings denoted the importance of healthcare professionals developing greater cultural competence in delivering mental healthcare to address the specific needs of migrant and ethnic minority populations.

Knowledge gap and how this thesis addresses it

When cultural competence was initially developed, its primary goal was to reduce disparities and enhance the quality of care for people from migration and ethnic backgrounds (374). One study pointed out that primary care providers, such as GPs, should be particularly responsive to patient diversity when compared to other healthcare services (163).

- ⇒ This thesis focuses on general practice where MEM populations can receive enhanced and culturally sensitive healthcare, aligning with the core principles of cultural competence. This emphasis on GPs is driven by the recognition that GPs play a key role in addressing ethnic healthcare disparities and promoting health equity for individuals with a migration background.

An important finding from a study by Dauvrin and Lorant (375) is that the cultural competence of healthcare staff is associated with the cultural competence of leaders. However, this positive association diminishes after accounting for **contextual** factors (e.g. type of service, exposure to migration) and **sociodemographic variables**. Additionally, an American experimental study on the impact of race on primary care physicians' diagnosis and treatment of late-life depression indicated that certain GP characteristics influence diagnosis and treatment recommendations (376). However, the influence of these individual factors has been underexplored in Europe.

- ⇒ One hypothesis of this manuscript is that the GPs' individual, interpersonal and organisational factors may affect their ethnic bias in decision-making. Our methodology considers the cultural competence training of GPs, with the hypothesis that more culturally competent GPs would make less discriminatory decisions in interethnic mental healthcare.

Furthermore, Dauvrin and Lorant (377) highlighted a critical gap: *"Most programs of cultural competence assume that health professionals accept that they have a responsibility to adapt to migrants"*. This raises a fundamental question of whether primary mental health care professionals genuinely perceive a responsibility to tailor their care for migrant and ethnic minority patients. In this context, Bhui and colleagues' review (378) emphasised the crucial role of *"showing respect for patients' cultural beliefs and attitudes"*, especially when they **diverge** from those of healthcare professionals.

- ⇒ This thesis will assess the GP's willingness to adapt their care to migrant patients using the Hudelson Scale, available in Appendix 2 (379). This scale evaluates who bears the responsibility to adapt care to migrant patients under several circumstances, such as when the patient does not speak the host country's language or when their health beliefs clash with medical knowledge, among others.

A study on cultural competency training within European medical schools revealed significant shortcomings in its implementation within educational programs and highlighted the opportunities for substantial improvements in GPs' cultural competence training (380). Additionally, a study conducted within the *"Migrant-friendly Hospitals"* project⁵, assessed ethnocultural competence experiences in hospitals, indicating that cultural competence training was positively associated with the healthcare professionals' perception of knowledge, motivation, skills and comfort levels in intercultural situations.

- ⇒ This thesis also includes trainee GPs to evaluate potential ethnic biases and assess their readiness to adapt care for diverse populations, a prerequisite for developing cultural competence necessary for future practice in interethnic contexts.

⁵ The European *"Migrant-friendly Hospitals"* project (2002-2005) aimed to improve the impact of hospitals on the health and health literacy of migrant and ethnic minorities involving 12 member states of the European Union.

Synthesis of the existing interventions

Prior research has emphasised the need for cultural competence and evidence-based practices in mental health services, particularly in the psychological treatment of MEM populations (30, 378, 381-384). Several cultural competency techniques have emerged, including interpreter services, intercultural mediators, ethnic/racial concordance between patients and health professionals, providing multilingual materials, culturally sensitive care training, promoting culturally competent health practices, and organisational accommodations, among others (100, 144, 384-387).

These interventions were also supported by the WHO, which outlined language services and culturally informed care delivery as migrant-sensitive health service delivery (163).

✓ Professionals Interpreters

Language barriers faced by MEM individuals were discussed in Section 0. In practice, despite evidence of improved provider-patient relationships with **interpreters** (363), several studies outlined the underutilisation of interpreters in healthcare (388-390). The **main reasons** include **lack of time**, interpreters' availability, and **awareness** of their existence (389).

In the US, a study on resident physicians' use of interpreters noted that the providers *"normalised the underuse of professional interpreters, despite recognition that patients with limited English proficiency are not receiving equal care"* (389). The authors showed that **interventions** at both **individual physicians and the practice environment** levels will be required to increase the interpreter's use. In Switzerland, **barriers** to interpreter use in primary healthcare included cumbersome organisation, lack of financial coverage, and knowledge gaps (391). The facilitators included adequate financing, interpreter services awareness, training, and employment of in-house interpreters, among others (392).

In Denmark, patients who have been residents for more than three years are required to pay a fee for interpreter assistance when they **need linguistic assistance** in their healthcare treatment, whether it is in hospitals or during consultations with GPs (393). A study reported that individuals with a higher self-perceived need for interpreters were predominantly female, older, had a lower socioeconomic status, and primarily originated from countries like Iraq, Lebanon, and Turkey (394).

In Belgium, the Universal Declaration of Human Rights plays a crucial role in healthcare, with the law on Patient's Rights, dated August 22, 2002, being a reference document. This law addresses patients who lack proficiency in the

national language and guarantees their rights to receive all necessary healthcare information in a language they can understand. It also stipulates that communication with patients should be in clear language, and patients have the right to request written confirmation of the information provided (395). Consequently, the country has established translation and social interpretation services that provide social interpreters when healthcare facilities like hospitals and medical facilities request such assistance. However, despite these services, their utilisation remains marginal and may not always be optimal, as previously discussed. In addition to professional interpreters, another cultural competence intervention is the role of intercultural mediators, which will be discussed in the following section.

✓ Intercultural mediators

In the realm of **culturally informed care** delivery, the integration of **intercultural mediators** into healthcare services, particularly in hospitals, has gained popularity. This strategic approach began in the 1990s, aiming to enhance the **accessibility** and quality of healthcare services for refugees, migrants and ethnic minorities (396, 397). Intercultural mediation is defined as *“a set of activities that aim to reduce the negative consequences of language barriers, socio-cultural differences and tensions between ethnic groups in health care settings”* (397).

In Belgium, intercultural mediators are funded by the Federal Government and employed by hospitals to provide on-site or video remote interventions in healthcare (398). This practice is also well-established in other countries, including the USA, France, Italy, Spain, and Switzerland (163). In Belgium, the Guide for Intercultural Mediation in Health Care defines the roles of intercultural mediators, including interpreting, facilitating, and advocating. It is designed to promote increased utilization of intercultural mediators by both healthcare providers and patients when facing linguistic or cultural barriers (397). A report on the TIME⁶ project identified ten practices in intercultural mediation across Europe, with three of them being implemented in Belgium, including **intercultural mediation** in hospitals, **remote mediation** services in **healthcare**, and **training courses** for developmental agents and intercultural mediators (399).

However, it is worth noting that the TIME research project conducted in 11 countries (Austria, Belgium, France, Germany, Greece, Italy, the Netherlands, Poland, Portugal, Spain and Switzerland) revealed that employment for most trained intercultural mediators employment is *“short term and cannot be considered a professional occupation”* (399). Additionally, the fee-for-service

⁶ Train Intercultural Mediators for a Multicultural Europe

healthcare model in Belgium does not strongly support the utilisation of intercultural mediators, particularly for general practitioners in solo or group practices, who are already constrained by time limitations. This issue was identified as one of the main barriers to the utilisation of these professionals.

In a review by Verrept (398), several factors facilitating the performance of intercultural mediators are highlighted. Notably, it is suggested that the status of intercultural mediators should be elevated due to their often low status, as observed in Belgian hospitals, where their complex tasks involve intervening and protecting patients' well-being and rights. Moreover, healthcare professionals should receive training to effectively collaborate with intercultural mediators (398).

✓ Cultural competence training

A systematic review found that cultural competence training for mental health providers has a positive impact on attitudes (371). The review also noted a significant increase in providers' cultural knowledge and skills. However, it highlighted that discrimination and prejudice were often the least discussed topics in curricula. Another review added that *"addressing bias and discrimination in standard workforce training aligns with policy and practice recommendations to ameliorate structural racism in mental health service system"* (400).

Various methods for teaching cultural competence in training have been identified, including lectures, case study discussions, role-plays to uncover hidden attitudes and challenging behaviours, as well as the use of video materials and feedback to enhance the understanding of non-verbal communication and raise awareness (378). Active strategies were the most effective in the training of mental health professionals, such as role modelling, role playing, self-reflection, and **receiving corrective feedback** (371). The advantage of these interventions is their accessibility at the individual level and their ease of implementation in the education and ongoing training of GPs, for example.

However, it is important to note that increasing knowledge on the topic alone is insufficient. Different approaches and tools should be integrated, and diverse training methods should be utilised to improve cultural competence. In addition, it is crucial to raise awareness among general practitioners about the need for cultural competence, especially in the context of mental health disorders (368). Developing cultural competence among healthcare professionals encompasses multiple levels of action, including providers' biases, as seen in Section 3.2, as well as enhancing effective communication and cultural knowledge, as seen in Sections 3.2.2, 0, and 3.2.4. Finally, the ability to develop their **empathy** and their knowledge

of the patient **history**, as it will be presented in Section 3.2.5 with the humanization concept.

3.2.5. Humanization

Definitions

Although Haslam defined the concept of "**dehumanization** of the patient" as a psychological phenomenon where individuals, particularly healthcare professionals, may unintentionally or deliberately perceive and treat patients as if they were less than fully human (401), the concept of humanization of care has remained somewhat nebulous and has received limited attention in clinical practice research due to a lack of clear conceptual delineation of its dimensions (402-404). Several studies showed the multidimensional nature of the humanization of care, highlighting the inherent complexity and subjectivity of its definition (402, 403, 405).

Haslam proposed a theoretical approach in 2006 where the author proposed the distinction between human uniqueness and human nature, the latter including characteristics like warmth, curiosity, and emotional responsiveness. The denial of human uniqueness (refinement, moral sensibility, maturity) leads to animalistic dehumanization, while the denial of human nature leads to mechanistic dehumanization in which people and groups are perceived as inanimate objects (401). Dehumanization is arguably most often mentioned in relation to ethnicity and race. It is in this paradigmatic context of intergroup conflict that some groups are claimed to dehumanize others, and these dehumanizing images have been widely investigated. This dehumanization can manifest in various ways, such as through the use of clinical or impersonal language, **reduced empathy**, and a focus on the patient's medical condition to the detriment of their emotional and personal needs. It is a critical issue to address in healthcare settings, as it can result in suboptimal patient care, poorer health outcomes, and reduced patient satisfaction (401).

According to a systematic review by Busch and colleagues (403), the **humanization** of care can be defined as the **overlapping** between the **patient-centred care** approach and the **person-focused care** one. Table 1 illustrates the differences between the two concepts (403).

Table 1 Differences between patient-centred care and person focused-care⁷

Patient-centred care	Person-focus care
Generally refers to interactions in visits	Refers to interrelationships over time
May be episode-oriented	Consider episodes as part of life-course experiences with health
Generally centres around the management of diseases	Views diseases as interrelated phenomena
Generally views comorbidity as number of chronic diseases	Often considers morbidity as combination of types of illnesses (multimorbidity)
Generally views body system as distinct	Views body systems as interrelated
Uses coding systems that reflect professionally defined conditions	Uses coding systems that also allow for specification of people's health concerns
Is concerned primarily with the evolution of patients' diseases	Is concerned with the evolution of people's experienced health problems as well as with their diseases

Within the **patient-centred care** model, healthcare professionals demonstrate higher levels of **empathy**, attentiveness to patient **needs** and **preferences**, consideration of their values, and active involvement in the decision-making process (403). Essentially, the quality of interactions between patients and healthcare providers is determined by patient-centredness, as suggested by other authors (406).

In contrast, the **person-focused** care model places a strong emphasis on considering the patient's **life story** as a critical factor in understanding symptoms and tailoring disease treatment (403). Additionally, some GPs, as highlighted by Chew-Graham (407), perceive depression as a "normal" response to life events within the person-focused care approach. In essence, this approach pays closer attention to patient's problems within the context of their lives (406).

Humanization goes beyond these approaches by considering the stakeholders involved in the care process and their interactions. It also encompasses the humanization of **relational**, **organisational**, and **structural** aspects. The **organisational** aspect of humanization is defined by factors such as the quality of facilities, access to services and the availability of medication and equipment, which can either contribute to or detract from a humanized form of care (404). Moreover, humanizing healthcare is closely intertwined with **structural** elements that exert a significant influence on the healthcare system. These structural components encompass a multitude of challenges. For instance, GPs often grapple with

⁷ Source: Starfield, 2011

overwhelming workloads, leading to considerable challenges in providing comprehensive and patient-centred care (404). Additionally, the inadequacies in healthcare remuneration, as exemplified by a fee-for-service system that fails to promote continuity in mental healthcare, further exacerbate the situation. The fragmentation of work processes can also hinder the professional roles and responsibilities associated with referrals or problem-solving, all while working within the constraints of available resources. An illustrative example of this is when a GP must assume the responsibility of caring for a depressed patient due to the saturation of mental health care services (404).

Lastly, humanizing **relational** aspects involves the improvement of various dimensions within the provider-patient relationship, such as fostering respect, active listening, and facilitating meaningful dialogue (404).

What is known

In the US, initiatives like the “Patient-Centred Medical Home” have been implemented in the early 2000s. This approach *“puts patients at the forefront of care and builds better **relationships** between patients and their clinical care teams”* (408). Similarly, in Australia and New Zealand, the “Health Care Home” model has gained popularity, emphasising care that *“is continuous, comprehensive, coordinated, compassionate, family-centred, and culturally and linguistically appropriate”* (409). These structural reforms have played a key role in shifting healthcare services. They have moved to an approach that prioritizes **patient-centred** and ongoing care (338, 409).

In the WHO Region, there has been a greater emphasis on safeguarding the rights of migrants across several domains, including in healthcare to align with the vision of the 2030 Agenda for Sustainable Development and towards leaving no one behind (163, 410, 411). The WHO has published a report “Health of Migrant – the Way Forward”, which highlighted the challenges faced by our healthcare system *“to deliver affordable, accessible, and migrant-sensitive services”* (163). These transformations in healthcare systems underscore the significance of establishing enduring, and **high-quality relationships** between patients and their primary care providers. These challenges are conducted to develop programs aiming at improving the provider-patient **communication**, and **trustful** relationship based upon **respect**, sensitivity, and **empathy**, which are key components of the humanization of care (380, 381, 412-414).

A prior study pointed out that when healthcare professionals perceive patients as having a lower “human status”, it tends to result in reduced levels of stress and

burnout among the professionals. The dehumanization of the patient may serve as a coping strategy for physicians, particularly **under time pressure**, reluctance to provide care, lack of flexibility and focus on the technical part of care (359, 415). The authors of the study called for further research to investigate how patient dehumanization impacts the quality of care and the relationships between healthcare professionals and their patients (415). Another study underscored the importance of acknowledging the humanness and individuality of each patient as a means to “*preserve and promote **human dignity** in diverse cross-cultural settings*” (416). Similarly, the presence of humanity in healthcare has the potential to triumph over cultural challenges arising from the conflict between two distinct cultural contexts (359).

The process of dehumanization arises when we perceive members of an outgroup as different from or even “inferior” to our ingroup (311, 417). This perception can result in the exclusion of outgroup members and lead to discrimination against them (417).

To ensure equality in healthcare access and the provision of high-quality care, it is evident that prioritising the adoption of **patient-centred** and **culturally competent** care practices is essential. This prioritisation is crucial for mitigating the occurrence of unintentional discrimination among primary healthcare providers, affecting both patients with a migration background and those without (374).

Knowledge gap and how this thesis addresses it

A study emphasised that the primary source of information for the physician is the patient themselves (418). Therefore, this underscored the importance of the patient story in the medical decisions of healthcare professionals, such as GPs. Moreover, in an experimental study, the authors reported differences in treatment based on race and ethnicity. However, they were unable to ascertain whether “*these differences were due to differences in the clinical presentation of the patients*” (419). In the same study, the authors chose to remove “*the effects of differences in the presentation of clinical symptoms by patients*” from their assessment (419).

Besides, a study concluded that the **promotion of individuation** is an effective intervention to reduce health professionals’ biases (261). When interested in the patient’s life story, the GP focus on “*the **individual attributes** of a particular patient, as opposed to categorization, in which the provider perceives the patient through the filter of his or her group membership (e.g., race)*” (261).

- ⇒ This dissertation hypothesised that a patient's life story also called storytelling in literature, can enable the GP to better address the mental health of their patient with or without a migration background, thereby contributing to the reduction of unintentional discrimination in GP consultation.

A previous study emphasised the necessity for research aimed at identifying factors, particularly those associated with healthcare provider characteristics, responsible for the low rates of mental health issue detection among marginalised communities. The authors underlined the importance of interventions designed to mitigate disparities in depression care based on race, ethnicity, and gender (130). Furthermore, a systematic review concluded that national policies on humanization were an important benchmark in the development of health practices, in Latin America (420), while in Europe, still little is known on the humanization of care in GP consultation.

Synthesis of the existing interventions

Previous studies have highlighted interventions using **empathy** as a proxy of humanization to improve intergroup attitudes and relations. Empathy in a provider-patient relationship is defined as an emotional response to a circumstance or a story (421) and may be efficient in reducing prejudicial attitudes towards members of the outgroup (421). Empathy refers to an ambivalent feeling in care because GPs should neither lack empathy nor be overly empathetic. Otherwise, it may create *"biases in the relationship between professionals and patients, and consequently not contribute to dignified and respectful care, but actually damage it"* (405). Calegari et al. (405) concluded that *"to be caring requires professionals to be in an **emotional condition** of being open to being touched by the **patients' stories**, (...) in order to (...) **awakening** the desire to solve problems and refer them on to others when necessary"*. To be in an emotional condition, the active listening is essential. Indeed, listening has been described as being central to the GP role (422).

To assess active listening and emotional involvement, Davidsen and Fosgerau (423) studied the GPs' and psychiatrists' responses to emotional disclosures in patients with depression. The authors found that *"GPs' responses were often non-specific acknowledgments without any actual exploration of the patient's emotions"*. This highlights that it is not sufficient to simply treat the disease or the symptoms but there is a need to investigate the emotions and the story of the patients with depression (403, 422, 424). Furthermore, testimonials from GPs themselves suggested that *"half of the treatment isn't necessarily just the tablets, it's the*

interaction with the patient, the fact that you listen to their story, you give them time” and also “(...) a lot of people that do come actually don’t need antidepressants, they need an ear and time, and so on » (422). Evaluating the time spent with a patient is also related to the humanization of care: the study of Gask (424) highlighted a significant problem in GPs’ consultation which is “the lack of time available to give to people presenting with complex psychosocial problems” and also that GPs failed to listen to their patients according to a qualitative study about depression management in primary care (422).

- ⇒ In our design, we analysed the difference in time GPs spent between a patient with a migration background and a patient without in order to assess who is taking more time to listen to the patient, especially when there is additional information about the life story of this patient.

A practice has proven to be effective in increasing the level of empathy in healthcare, which is the life story. **Life story** is defined as “a set of practices focusing on the search for and construction of meaning from personal and/or collective temporal facts” (425). Through the life history practice, it has been shown that the representation of the patient in the **eyes of the caregivers** was better, in the sense of humanizing the patient. By using the life story, “the perception of the caregivers goes beyond the medico-social information and symptoms” (426). Then, from a “**narrative perspective** which focuses on the life story of a patient provides a better understanding, not only of the patient’s actual mental state but also the significance, meaning, and processes contributing to the onset and maintenance of clinical symptoms” (427). It is why discussing the patient’s life story allows us to (re)place the patient at the centre of the health care system and not their symptoms (426). Moreover, enhancing the person-focus approach is a component of the cultural competence (374). The latter is also another quality that general practitioners have to develop to decrease discrimination towards patients with a migration background in their decision-making about treatment and referral in our mental health care system.

Another similar intervention is storytelling which is considered key to empathy creation, it provides opportunities for individuals to understand another’s perspective (428, 429). For example, face-to-face storytelling activities have been shown to combat biased attitudes and preconceptions about ageing and older adults (430).

Another important intervention to provide humanized care is the consideration of the **needs and preferences** of the patient to enhance the quality of care (431, 432).

It is necessary for GPs to consider the patient's history and life context in the management of depression. One of the frequent causes of depression is difficulty in a couple, in the family (433-435).

As a result of the literature review, we concluded that there were several ways to humanize patients in primary health care. Hence, we envisaged many different humanizing scenarios of life stories staged in the interventional group of GPs. In other words, we developed four scenarios that will **all** be staged in the experimental group of GPs 'With Life story' in a randomizing way. This will also increase the external validity of our intervention. Indeed, in their daily practice, the GPs receive different patients with different life stories explaining or not their symptoms of depression. In practice, we will aim to randomise each scenario **within** the interventional group 'Life story'. Table 2 presents the scenarios we will use in our humanization intervention.

Table 2 Humanization intervention: life story scenarios

Scenario	Theoretical background	Life Story intervention
1	Busch et al. (403) highlighted a key element in their systematic review which is the respect for patient's dignity, uniqueness, individuality and humanity. In this intervention, the patient is considered as a person with his own values.	Introduce the patient by his name, mentioning several details on his family composition, the place he lives and his background in the labour market. <i>"Mr PEETERS/DUBOIS/ALAOUI ⁸, grew up with his family made up of a brother and a sister. Currently, he lives in the inner city with his wife and their 2 children aged 1 and 3 years old. He used to work as an office worker ⁹. He plays football".</i>
2	To provide better quality-care, and more patient-centred care, the patient's needs and preferences should be taken into consideration (403, 423) and the medical decision should be shared (431, 432).	Provide information on the patient's needs and preferences for treatment. <i>"The patient also tells you that he is reluctant to take antidepressants, he is very afraid of side effects"</i>
3	Depression is conceptualized by some GPs as a reaction to external factors rather than as an objective diagnostic category (407). The more stressed life events involved, among others, financial readjustment and change in habits both of which can be found in job loss (436).	Information about the loss of employment of the patient. <i>"Six or seven months ago, the patient was under a lot of pressure at work. He and many of his colleagues were laid off from their jobs as a result of a company restructuring for financial reasons."</i>
4	It is necessary for GPs to consider the patient's history and life context in the management of depression. One of the frequent causes of depression is difficulty in a couple, in the family (433-435)	The patient talks about what he is experiencing as a conflictual period at home. <i>"You notice in the patient's file that he has been separated for 7 months".</i>

⁸ Family names Dutch, Walloon and Moroccan more common.

⁹ Job more common in Belgium (Les professions en Belgique – StatBel, 2020).

KNOWLEDGE GAP AND RESEARCH QUESTIONS

Following the literature review presented in the first three chapters, several knowledge gaps have been identified. This thesis tried to fill some of these gaps. To the best of our knowledge, still little is known about the longitudinal evolution of mental distress among different ethnic groups in Belgium. Therefore, Chapter 4 aims to describe the prevalence evolution of psychological distress among five important ethnic groups in Belgium.

As emphasised in Chapter 3, implicit and explicit biases are likely to influence healthcare for individuals with a migration background. However, there remain few studies conducted on this topic within the Belgian context. Within Chapter 5, our purpose was to depict the extent to which implicit and explicit biases manifested among trainee GPs dealing with MEM. Simultaneously, we sought to collect their insights on their results, to better understand how we could reduce those ethnic biases that could affect their medical decisions.

Chapter 6 tested the hypothesis that individual, interpersonal and organisational GPs' factors might have an impact on their ethnic discriminatory decisions.

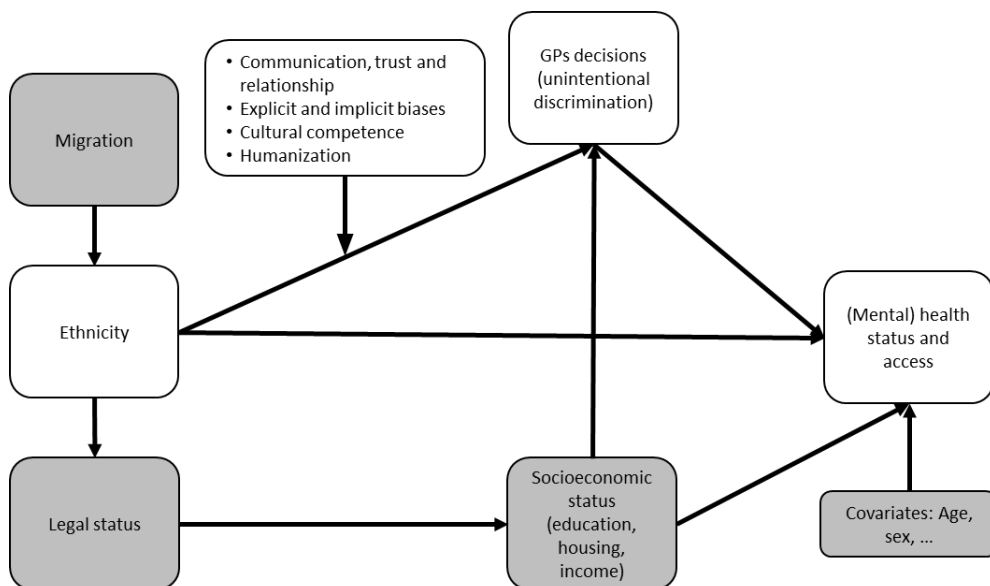
Chapter 7 aimed to assess the effectiveness of an empirical intervention known as "humanization of the patient" during General Practitioner (GP) consultations involving a migrant and a non-migrant patient. The goal was to determine whether this intervention could potentially mitigate ethnic discrimination in the context of primary mental health care.

Lastly, in Chapter 8, a comprehensive overview of the thesis outcomes is presented. We present the implications and the recommendations derived from this thesis.

Figure 8 illustrates our conceptual framework to explain ethnic disparities through various dimensions of (social) determinants of health and mental health influenced by unintentional discrimination. This figure is largely inspired by the conceptual framework initially developed by Lee and colleagues (437) in the context of racial/ethnic disparities in COVID-19 infection. The primary objective of this dissertation is to assess the impact of specific determinants (depicted in white) on the emergence of ethnic disparities in GPs' decisions within primary mental health care. While additional determinants also contribute to influencing ethnic disparities (depicted in grey), these are not specifically addressed in this dissertation. It is important to note that GPs decisions are contextual and linked to the environment, but these determinants are also less emphasised in this dissertation.

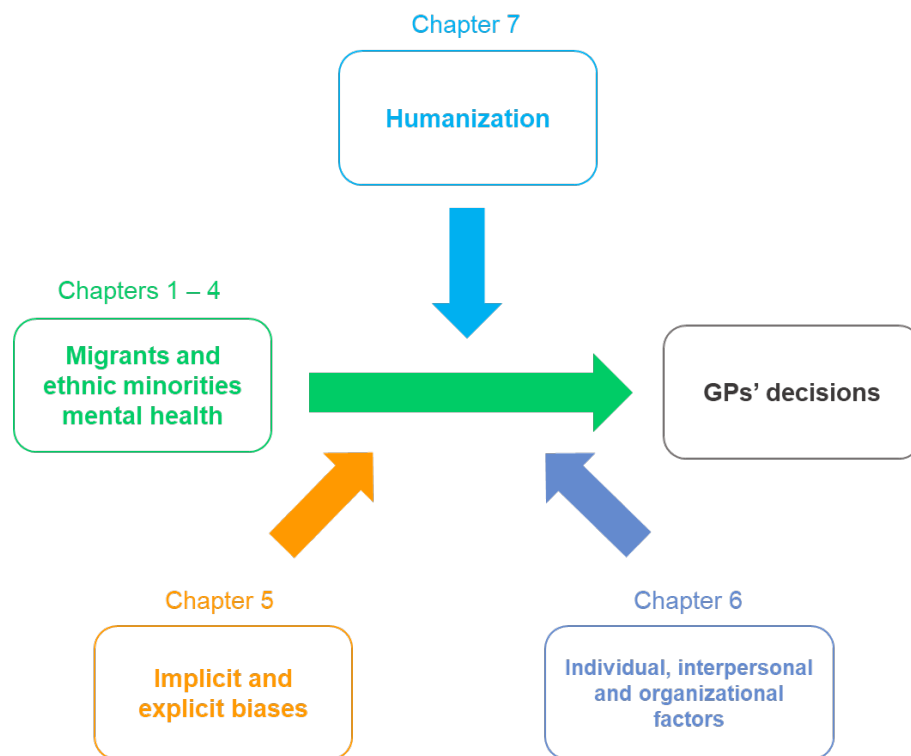
More specifically, we postulate that unintentional discrimination (in conjunction with the structural racism and discrimination, which is not represented in the figure) plays a substantial role in shaping the risk of developing mental health disorders, within the context of individuals with a Muslim background, specifically those of Moroccan and Turkish background, residing in Belgium. this influence is channelled through factors like legal status and socioeconomic status, and their subsequent effects on employment, economic resources, housing, and health-related behaviours. Furthermore, we hypothesise that certain factors related to GPs, including implicit and explicit biases, racial and ethnic concordance, communication, trust, cultural competence and humanization serve as moderators in the impact of unintentional discrimination within the domain of primary mental healthcare.

Figure 8 Conceptual framework displaying key determinants of mental health pathways through which inequitable practices (unintentional discrimination) contribute to ethnic disparities



A simplified version of the previous model is illustrated in Figure 9, which also presents the general structure of the thesis.

Figure 9 General structure of the thesis



METHODS

The methodology of this thesis is mainly composed of quantitative studies using different databases and methodologies. Each chapter develops its methodology in detail but here is an overview of the dissertation.

Within the three first chapters, we review the literature on definitions of the concepts used throughout this thesis, in order to clarify and establish a shared theoretical framework. This literature review also aimed to identify inequalities of opportunities that migrants and ethnic minorities faced in their lives, as well as identify knowledge gaps that could be filled thanks to this thesis.

Within **Chapter 4**, we used a cross-sectional study from the Belgian Health Interview Survey (BHIS), which gave us an overview of the evolution of the prevalence of mental health problems encountered by different ethnic groups, in Belgium. To analyse these **secondary data collections**, we used a quantitative methodology. This approach provided descriptive results across the different waves of the survey and among different ethnic groups in the Belgian population since 1997. The BHIS provided information about the assessment of (mental) health status, country of birth and nationality of respondents and their parents, and other variables such as sex, age and level of education.

In **Chapter 5**, we quantitatively assessed the implicit biases existence, one of the moderating factors of ethnic inequities in mental health highlighted in Chapter 3. To do so, we collected **primary data** from **207 trainee GPs** through an Implicit Association Test (IAT), specially designed for this study. The IAT, a validated tool, was used to ascertain whether implicit biases are associated with healthcare outcomes and explicit ethnic biases. We also used a Hudelson scale in order to assess explicit biases of the trainee respondents, by asking them who have to bear the responsibility to adapt care to migrants in different situations, when the patient does not speak the host country language, for instance. Next, it was raised that we should test whether these biases may have an impact on GPs' decisions with migrant patients.

Therefore, the experimental video vignette design, developed as part of the REMEDI¹⁰ project, provided a valuable framework for our research in **Chapter 6 and Chapter 7**. This **primary data collection design** enabled us to (1) empirically operationalise an innovative strategy aimed at reducing unintentional

¹⁰ REcommendations to patients with MEntal health problems and Diverse migration backgrounds, Belspo project (Belgian Science Policy Office)

discrimination, which we had hypothesised, and (2) standardise various contextual variables that influence medical decisions, such as gender, age, and the patient's social determinants. By using this approach, we could effectively measure the impact of factors related to GPs on medical decisions, including the effects of the experimental intervention during interethnic consultations. This allowed us to gain valuable insights into the magnitude of these influences and the effectiveness of the intervention in these specific scenarios.

Taking these results together, Chapter 8 discusses and provides some recommendations for research, practice and policy in the context of Belgium to improve the quality of care for migrants with mental health disorders, and to reduce ethnic inequalities in mental healthcare.

Table 3 summarises knowledge gaps and research questions that arise from the current literature about unintentional discrimination in primary mental health care in interethnic medical consultation. It also presents an overview of the databases and the methodology we used for each chapter. We used different databases and tools to collect data for this thesis, such as the Belgian Health Interview Survey, the IAT (Implicit Association Test), the Hudelson scale, and the REMEDI database.

Table 3 Overview of the general structure of the thesis, chapters, knowledge gaps, and methodology used

Chapter	Knowledge gap	Research questions	Database	Methods: design
Chapter 1, Chapter 2 & Chapter 3	There are multidimensional definitions of the key concepts used in this thesis, including migrants, ethnic minorities, and cultural identity. Moreover, there is a paucity of recent studies in Belgium examining the persisting ethnic disparities faced by migrant and ethnic minority populations with mental health problems. Insufficient attention has been directed towards healthcare professionals, such as GPs, and the mediating and moderating factors that may contribute to the perpetuation of these ethnic disparities within the domain of mental healthcare.	What do the concepts of migration, migrants, ethnic minorities and cultural identity mean? What are the challenges encountered by migrants and ethnic minorities in 21 st century in Belgium? How does the role of GPs influence the potential reduction of ethnic disparities in mental healthcare?	Scientific articles, systematic reviews, government reports, books etc.	Literature review
Chapter 4	The evolution of mental health prevalence in different ethnic groups in Belgium are unknown.	How mental illness has evolved among MEM across time in Belgium?	Belgian Health Interview Survey (1997-2018)	Observational, Quantitative analyses of population surveys
Chapter 5	There is a knowledge gap concerning implicit and explicit biases of general practitioners that might impede access to	Do the implicit biases remain associated with explicit ethnic biases among trainee GPs in	Implicit Association test and Hudelson	Observational, Quantitative analyses and

	mental health care for migrants and ethnic minorities in Belgium. There is a need to explore to what extent trainee GPs in Belgium have implicit ethnic biases and whether they are aware of them.	Belgium? If so, what factors are linked to with their potential implicit and explicit ethnic biases? To what extent are they aware of these cognitive biases?	scale among trainee GPs	feedback reactions
Chapter 6	There is a lack of knowledge on the factors that may influence the unintentional discriminatory decisions of GPs in their interethnic consultations with patients with mental health problems.	Which individual, interpersonal and organisational factors might influence GPs' decision-making concerning patients with mental health problems who have a migration background?	REMEDI online questionnaire	2x2 experimental study
Chapter 7	There is a lack of empirically research that investigates differences in interethnic primary healthcare.	Does the inclusion of a humanisation intervention in experimental GP consultations with patients with mental health problems and from ethnic minorities result in a reduction of unintentional discrimination by GPs?	REMEDI online questionnaire	2x2 experimental study



CHAPTER 4

MENTAL HEALTH AMONG
PEOPLE WITH A MIGRATION
BACKGROUND IN BELGIUM
OVER THE PAST 20 OVER
YEARS: HOW HAS THE
SITUATION EVOLVED?

Chapter 4 – Mental health among people with a migration background in Belgium over the past 20 years: how has the situation evolved?

This article was published in Archives of Public Health¹¹ in September 2023 and can be accessed through the following link: <https://rdcu.be/dq20I>.

Camille et al. *Archives of Public Health* (2023) 81:176
<https://doi.org/10.1186/s13690-023-01187-z>

Archives of Public Health

RESEARCH

Open Access

Mental health among people with a migration background in Belgium over the past 20 years: how has the situation evolved?



Duveau Camille^{1*}, Smith Pierre^{1,2} and Lorient Vincent¹

¹Faculty of Public Health, Institute of Health and Society (IRSS), Université catholique de Louvain, Brussels, Belgium

²Department of Epidemiology and Public Health, Sciensano, Brussels, Belgium

Corresponding author: camille.duveau@uclouvain.be

¹¹ Duveau, C., Smith, P., & Lorient, V. (2023). Mental health among people with a migration background in Belgium over the past 20 years: how has the situation evolved? *Archives of Public Health*(81), 176. <https://doi.org/10.1186/s13690-023-01187-z>

Abstract

Background

Poor mental health is highly stigmatised and stereotyped, even more, when it comes to migrant and ethnic minority groups (MEM). Belgium, which has a long history of immigration, is a good case study for analysing how the prevalence of mental illness (MI) has evolved and how such evolution has differed between MEM. This paper seeks to explore the prevalence of MI and potential inequalities among MEM compared to native Belgians between 1997 and 2018, shedding light on this important issue.

Methods

The data set is composed of the six cross-sectional waves of the Belgian Health Interview Survey from 1997 to 2018. The 12-item General Health Questionnaire was used to assess the average level of mental health and the prevalence of MI (score $\geq$ 4) among five major MEM groups in Belgium (Belgian, Moroccan, Turkish, European migrants, and non-European migrants). Multivariate logistic and linear regression models were used to assess the likelihood of having a MI in the different MEM groups and survey years. The minimal clinically important difference (MID) was also calculated for the severity of MI.

Results

After controlling for socioeconomic status, the average marginal effect indicated a decrease in mental health among Moroccans and Turks in Belgium between 1997 and 2018, compared to Belgians. This result was confirmed by the Chi²-test, which showed that Turkish ($\chi^2=17.75$, $p<0.001$) and Moroccan respondents ($\chi^2=4.19$, $p<0.04$) had a higher overall level of mental distress than Belgians. Furthermore, in 2018, even after adjusting for age, sex, and education level, having a mother born in a non-EU country increased the risk of mental illness.

Conclusions

Mental health inequalities between migrant and ethnic groups are on the rise in Belgium. To address this issue, particular attention should be given to the Moroccan and Turkish background populations. Specific interventions and policies must be implemented to prevent the increase of psychological distress among migrants and ethnic minorities, on the one hand, and ensure that high-quality mental health care

is accessible to all, regardless of ethnicity, on the other hand. Additionally, we recommend that future research on ethnic mental healthcare includes better data collection on the country of birth of respondents and their parents.

Keywords

Mental health, migrants, ethnic minorities, depression, psychological distress

Contributions to the literature

- What is known

Migrants and ethnic minorities frequently experience a higher incidence of mental health disorders, including depression, compared to the host country populations across numerous European countries, especially in Belgium.

- What does the study add

This research contributes to a comprehensive understanding of the evolution of mental health vulnerabilities within migrant and ethnic minority (MEM) communities, contrasting these patterns with the Belgian populations.

- What the implications are for clinical practice, public health and/or research

Informed by the findings of this study, we can provide the trajectory of mental health risks among five significant MEM groups in Belgium, spanning the time frame from 1997 to 2018. This insight holds valuable implications for clinical practitioners, public health initiatives, and ongoing research endeavours.

Background

People who were born abroad and people with parents born abroad, often referred to as migrants and ethnic minority groups (MEM), are a vulnerable group to psychological distress (96, 109). Yet, there is little literature addressing the longitudinal evolution of their psychological distress in Belgium. One issue is that previous studies have shown that MEM were at a higher risk of mental health disorders, particularly MEM from the second generation (76, 96). However, it remains unclear whether and how this risk has evolved over time. In Belgium, MEM may have faced additional risk factors related to lower socioeconomic status, social exclusion, traumatic experiences, discriminatory practices, and cultural adaptation

which could increase their risk of mental illness (MI) (167, 276, 438-440). Additionally, MEM encounter various challenges such as language barriers, unemployment, and social isolation that negatively impact their integration into the host country (441). Despite these challenges, MEM are not receiving equal mental health care or are unable to access quality mental health care is not acceptable, as it is an essential human right (139, 255, 442).

Turkish and Moroccan immigrants form one of the largest established groups in Belgium, and migrants make up 20% of the Belgian population and up to 40% in Brussels, the capital (443). In 2007, Levecque and colleagues found that persons of Turkish or Moroccan origin had a higher prevalence of depressive symptoms than Belgian or EU citizens (109). Missinne and Bracke also confirmed the higher depression scores among first and second-generation immigrants in the early 2000s but the authors did not study the evolution of this risk over time (97). Another study indicated differential access to substance use treatment services for migrants and ethnic minorities in Belgium, consequently amplifying the disparities in mental health (444).

Mental health remains an important public health issue in Belgium. The Belgian Health Interview Survey (BHIS) of 2018 reported that 18.3% of the general population experienced psychological distress. However, there is still little research on mental health prevalence among those from different migration and ethnic backgrounds due to inadequate system of population-based study registration (112, 445). A prior study utilised the BHIS to investigate positive mental health based on migration background discovered that individuals without a migration background exhibited higher scores of positive mental health, compared to those with a migration background. The authors also noted that the association between mental health and migration background disappeared when controlling for sociodemographic factors. However, this study did not address the temporal evolution of these findings (446).

Considering the results of previous studies and the lack of information on the long-term evolution of the mental health status among MEM in Belgium, there is a need to pay more attention to the mental health of MEM populations and, to describe their mental health status over time. Despite the growing diversity of the Belgian population, research on mental health status and its evolution across the years is lacking. Conducting research in this area can help fill this gap and provide much-needed insights into the mental health of these important growing population groups.

Therefore, this study aims to understand the evolution of mental illness prevalence among different MEM groups and to determine whether MEM status remains an important factor in mental health status when other risk factors, such as socioeconomic status and parents' country of birth are controlled for. In summary, this study aims to address the following research questions: How has the prevalence of MI changed over time among different migrant and ethnic minority populations compared to the host country population, and which determinants influence this prevalence?

Methods

Data

We pooled data from the six waves of the Belgian Health Interview Survey (BHIS) which is a repeated cross-sectional epidemiological survey conducted throughout Belgium from 1997 to 2018 (1997, 2001, 2004, 2008, 2013, and 2018). The survey's purpose is to provide information on the physical and mental health status of the general population and the use of healthcare and services. The target population included all people residing in Belgium, including people with a migration background, regardless of their country of birth or their nationality. The BHIS is representative of the population in private and collective households. People who stayed in psychiatric care or any institutional housing during the time of the interview were not surveyed. All questionnaires were available in French, Dutch, German (the three national languages), and English (for foreigners). When necessary, a translator, who was generally a member of the household who speaks both languages, was used. The response rate to the different surveys was around 60% with a total sample of approximately 10,000 respondents in each wave. Full details of the methodology have been described elsewhere (447, 448).

We included data on mental health for adults aged between 15 and 65 years old because of the small sample of elderly immigrants. We did not include people with missing data for mental health status, who represented less than 5% in each wave. The final sample ranged from 4363 to 6362 subjects in each wave, stratified into five major and minor ethnic groups.

Migration and ethnic background

The main independent variable in this study was the migration and ethnic background of the respondents, hereafter called ethnicity. In the 1970s, Belgium experienced a significant wave of labour immigration. Later, in the 1990s, the country changed its legislation on naturalisation, and nationality became a less

reliable indicator of migration and ethnic background. Additionally, migrant descendants automatically acquired Belgian nationality at birth, although their migration and ethnic background may not differ from that of their migrant parents. To capture the maximum amount of information about the respondents' migration and ethnic background, we decided to calculate a variable called "ethnicity" based on their country of birth or nationality. Administrative registration of ethnicity is not mandatory, and gathering such data remains a sensitive issue in Belgium (449). Furthermore, the Law on the protection of privacy governs the collection of personal data, allowing it only when is well-defined, clear and, legitimate (450). Since the primary aim of the BHIS does not revolve around investigating *ethnic* health disparities, our analyses are grounded in the country of birth or nationality instead of ethnicity. For instance, a Belgian born abroad was considered to have a foreign ethnic background, and a foreigner born in Belgium was also considered to have a foreign ethnic background. Having Belgian nationality does not necessarily mean that individuals were not exposed to a higher risk of discrimination, social exclusion, or even racism in their mental health care. Starting in 2013, the health survey included questions about the mother's and father's country of birth. Respondents were given three options to choose from 1) Belgium, 2) European country, or 3) non-European country. We included this independent variable in the analyses of the data collected in 2013 and 2018.

Based on previous studies that have highlighted people with a Moroccan or Turkish background as having a higher mental health risk than the Belgian population and being considered the groups most at risk of poor health (96, 451), we decided to divide the sample into five major ethnic groups as follows: Belgian, Moroccan, Turkish, European migrants and Non-European migrants (109). We also based our classification on the availability of the data in the BHIS.

Mental health status

Mental health status was the dependent variable and was assessed using the 12-item General Health Questionnaire (GHQ-12), which is a widely used screening instrument for psychological distress (452). The GHQ-12 measures four subscales: somatic symptoms, anxiety and insomnia, social dysfunction, and depression, based on the respondent's experience in the last four weeks compared to their usual state, using categories such as better, worse, and much worse. The GHQ-12 has good psychometric properties, widely used in health surveys, with a Cronbach's $\alpha = 0.90$ (452), and the final score ranges from 0 (no psychological distress) to 12 (severe psychological distress). We reported the GHQ-12 score both as a mean to estimate psychological distress severity and as a dichotomous variable using a

validated cut-off point of GHQ-score ≥ 4 to estimate the prevalence of non-psychotic mental illness (MI) (452).

Other determinants

Other socioeconomic determinants were collected, including sex (man or woman), age (divided into three groups: 15-24, 25-44, and 45-65 years old), ethnicity (classified as Belgian, Moroccan, Turkish, European migrants, and non-European migrants), and level of education (classified as 1=No diploma or primary education, 2=Lower or higher secondary, and 3=Higher or tertiary education). For 2013 and 2018, as mentioned previously, we included the mother's country of birth and the father's country of birth variables in the model as questions about these were added to the survey.

Statistical analysis

Descriptive statistics were computed for socio-demographic characteristics such as sex, age, and ethnicity of respondents and their parents throughout the different survey years. We also presented the GHQ-12 scores (means and SD) and the prevalence of MI ($\text{GHQ} \geq 4$) for each survey year. To describe the ethnic discrepancies in MI and its evolution across time, a Chi^2 test and an analysis of variance (ANOVA) were performed using the GHQ-12 score. As a statistically significant difference does not mean that the difference is clinically observable, the minimum clinically important difference (MID) was computed for the GHQ-12 as $\sigma_x * \sqrt{1 - r_x}$, where "r" is the reliability of the measure. We used the Cronbach's α of 0.90 (452).

To compare mental health risk between ethnic groups and over time, we used a linear regression model to estimate the average marginal effect of ethnicity on GHQ-12 scores, while controlling for age, sex, and level of education. The independent variable was ethnicity, which we classified into five groups. Years of the survey were included as a covariate to account for any changes in the GHQ-12 scores over time. We reported the average marginal GHQ-12 scores (CI95%), for each survey year and ethnic group.

Next, we conducted four linear regression analyses to determine the factors that contribute to mental illness among participants across time. The dependent variable was the GHQ-12 score, which we used as a continuous measure of psychological distress. The independent variables in both models included age, sex, ethnicity, education level, and year. For data from 2013 and 2018, parents' country of birth was also included as a variable. While the first two models used 1997 as the

reference year, the third and fourth models used 2013 as the reference year because they compared psychological distress including parents' country of birth. The objective of the first and second models was to determine whether ethnicity remained a significant factor in psychological distress when controlling for other socioeconomic factors. The objective of the third and fourth models was to investigate whether second-generation immigrants were more at risk for psychological distress than first-generation immigrants. Statistical significance was set at p-value <0.05. All the statistical analyses were performed in SAS® 9.4.

Results

Table 4 displays the sociodemographic characteristics of the respondents from 1997 to 2018. As mentioned in the methods section above, we only included data on mental health for adults aged between 15 and 65 years old, given the fact that elderly immigrants constituted a small sample among the participants. Therefore, we ended up with a total sample ranging from 4363 to 6362 subjects in each year. Additionally, we know that MEM groups are often underrepresented in national health surveys (440) and, this should be considered when interpreting results. The sample's distribution was similar over time in terms of age, sex, ethnicity, level of education, and mental health status. However, we observed changes in the ethnic composition of the sample over time. In 1997, 82.0% of the sample was Belgian, while in 2018, this percentage decreased to 74.9%, which is consistent with the change in population composition (44). Descriptive statistics showed that the proportion of respondents with a Moroccan background increased from 1.9% in 2001 to 3.2% in 2018, and that of those with a Turkish background increased from 0.9% to 1.1%, respectively. The table also examined the parents' country of birth of respondents, and the results indicated that the proportion of individuals with one or two parents born abroad increased between 2013 and 2018. For example, the percentage of respondents with a mother born outside the European Union was 11.1% in 2013 but rose to 15.3% in 2018.

It is noticeable that the proportion of MI (GHQ score of 4 or higher) has changed over time, increasing from 13.8% in 2001 to 19.8% in 2018.

Table 4 Characteristics of the sample over the years, Belgian Health Interview Survey from 1997 to 2018

	Year					
	1997 (n=5771) N (%)	2001 (n=6362) N (%)	2004 (n=5943) N (%)	2008 (n=4845) N (%)	2013 (n=4363) N (%)	2018 (n=5334) N (%)
Sex						
Man	2869 (49.7)	3129 (49.2)	2845 (47.9)	2332 (48.1)	2081 (47.7)	2540 (47.6)
Woman	2902 (50.3)	3233 (50.8)	3098 (52.1)	2513 (51.9)	2282 (52.3)	2794 (52.4)
Age						
15-24	414 (7.2)	401 (6.3)	400 (6.7)	352 (7.3)	188 (4.3)	200 (3.7)
25-44	3020 (52.3)	3192 (50.2)	2790 (46.9)	2173 (44.9)	1912 (43.8)	2229 (41.8)
45-65	2337 (40.5)	2769 (43.5)	2753 (46.3)	2320 (47.9)	2263 (51.9)	2905 (54.5)
Ethnicity						
Belgium	4734 (82.0)	5436 (85.4)	4982 (83.8)	3903 (80.6)	3475 (79.6)	3995 (74.9)
Morocco	191 (3.3)	121 (1.9)	130 (2.2)	136 (2.8)	142 (3.3)	171 (3.2)
Turkey	54 (0.9)	60 (0.9)	50 (0.8)	44 (0.9)	39 (0.9)	61 (1.1)
EU country	621 (10.8)	570 (9.0)	582 (9.8)	545 (11.2)	478 (11.0)	703 (13.2)
Non-EU country	171 (3.0)	175 (2.8)	199 (3.3)	217 (4.5)	229 (5.2)	404 (7.6)
Education						
No diploma or primary education	900 (15.6)	895 (14.1)	691 (11.6)	439 (9.1)	334 (7.7)	249 (4.7)
Lower or higher secondary	3063 (53.1)	3421 (53.8)	3141 (52.9)	2506 (51.7)	2233 (51.2)	2560 (48.0)
Higher or tertiary education	1808 (31.3)	2046 (32.2)	2111 (35.5)	1900 (39.2)	1796 (41.2)	2525 (47.3)

	Year					
	1997 (n=5771) N (%)	2001 (n=6362) N (%)	2004 (n=5943) N (%)	2008 (n=4845) N (%)	2013 (n=4363) N (%)	2018 (n=5334) N (%)
Mother's country of birth						
Belgium	NA	NA	NA	NA	3306 (75.9)	3737 (70.3)
EU country					565 (13.0)	765 (14.4)
Non-EU country					485 (11.1)	815 (15.3)
Father's country of birth						
Belgium	NA	NA	NA	NA	3270 (75.1)	3728 (70.1)
EU country					584 (13.4)	766 (14.4)
Non-EU country					502 (11.5)	823 (15.5)
Score GHQ-12						
mean (SD)	1.7 (2.7)	1.4 (2.5)	1.4 (2.5)	1.5 (2.6)	1.9 (2.9)	1.9 (2.9)
Proportion with MI (GHQ>=4)	1043 (18.1)	877 (13.8)	825 (13.9)	741 (15.3)	875 (20.1)	1057 (19.8)

Figure 10 showed that the proportion of people with MI was not significantly different among ethnic groups in 1997, 2001, 2004, and 2008. However, there was a significant difference observed in 2013 and 2018. Specifically, in 2013, there was a steady increase in the proportion of MI among Belgian respondents and an even greater increase among respondents with a Moroccan or Turkish background. In 2018, the proportion of MI slightly decreased among all ethnic groups, but the crude prevalence of MI remained higher among respondents with a Moroccan or Turkish background.

Figure 10 Prevalence of mental illness (GHQ ≥ 4) by ethnic group and by year

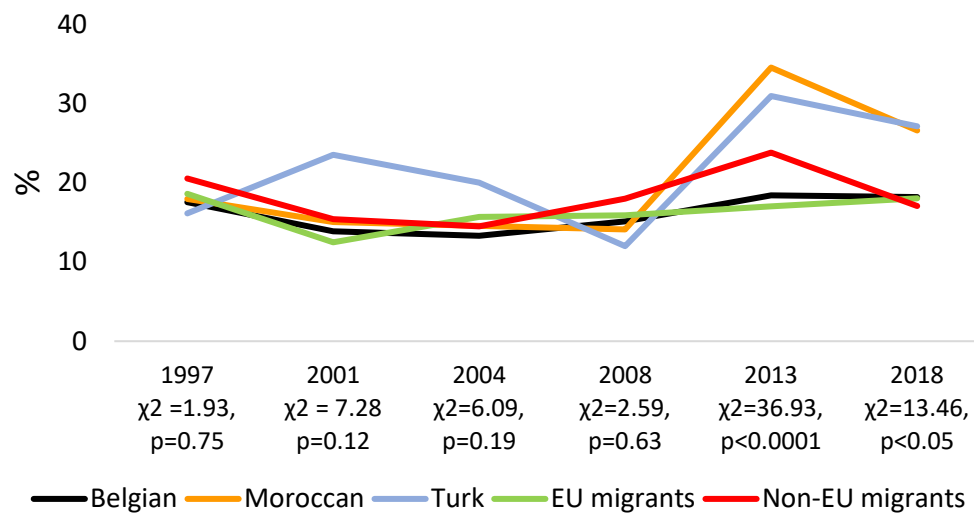


Table 5 presents the average marginal mean of psychological distress (GHQ-score) from the linear regression, for each of the five ethnic groups, for each year, as well as the Minimal Important Difference (MID). The scores were adjusted for age, sex, and education level of participants. The findings indicated that, on average, the score of mental distress has increased between 1997 and 2018 for all ethnic groups compared to Belgians, except for non-EU migrants. More specifically, there was a significant increase in the score for respondents with a Moroccan or Turkish background between 2008 and 2018, while the score remained stable for the other groups. In other words, the mental health of Moroccans and Turks did not differ from that of Belgians in each survey wave. However, over time, the mental health of Moroccans and Turks deteriorated in comparison to that of Belgians. The results of the MID also indicate that respondents with a Turkish background had clinically higher scores of mental distress than Belgians in three years out of the six (2001, 2013, and 2018). Similarly, people with a Moroccan background had a clinically higher score in 2013 and 2018.

Table 5 Evolution of psychological distress (GHQ-12 score) in five ethnic groups in Belgium from 1997 to 2018, with average marginal effect controlled for age, sex, and education

GHQ-12 score Average marginal mean (CI95%) ^a							Chi ² -test ^b (p-value)
	1997	2001	2004	2008	2013	2018	
Belgium	1.65 (1.58;1.72)	1.35 (1.29;1.41)	1.34 (1.28;1.40)	1.49 (1.42;1.56)	1.81 (1.74;1.81)	1.87 (1.77;1.97)	REF
Morocco	1.61 (1.25;1.97)	1.44 (0.99;1.89)	1.41 (0.97;1.84)	1.42 (0.99;1.86)	3.19 (2.78;3.61)	2.50 (2.10;2.91)	17.75 (<0.001)
Turkey	1.39 (1.69;2.09)	1.86 (1.21;2.51)	1.50 (1.20;2.20)	1.11 (0.37;1.85)	2.93 (2.12;3.74)	2.49 (1.81;3.17)	4.19 (0.04)
EU migrants	1.70 (1.51;1.88)	1.23 (1.04;1.42)	1.50 (1.02;1.69)	1.51 (1.32;1.71)	1.62 (1.41;1.84)	1.80 (1.60;1.99)	1.06 (0.30)
Non-EU migrants	1.85 (1.46;2.23)	1.42 (1.05;1.79)	1.52 (1.08;1.87)	1.64 (1.30;1.98)	2.38 (2.06;2.71)	1.75 (1.48;2.02)	0.06 (0.80)
MID ^c	0.85	0.77	0.77	0.81	0.90	0.89	

Each year estimates are computed from the same model. ^a Average marginal mean computed from the linear regression model controlled for age, sex, and education. ^b Wald Chi² from the linear regression model, with variable “year” was considered as a continuous variable.

^c The Minimal Important Difference (MID) is calculated as $\sigma_x * \sqrt{1 - r_x}$.

Table 6 displays the estimates (β , CI95%) obtained from linear regression analyses assessing the determinants of psychological distress severity among the study participants. All the models were controlled for the survey year. The first model presents the estimates for the main effect of ethnicity. The second model is controlled for the socioeconomic status (SES) of respondents. The third model presents the main effect of the parent's country of birth on psychological distress while SES was not included. The last model includes the parents' country of birth while controlling for SES. In the first two models, we found that ethnicity had no significant impact on psychological distress severity, even when not accounting for socioeconomic factors such as age, sex, and education. Models 3 and 4 indicated that after adjusting for socioeconomic status, non-EU migrants were less vulnerable to psychological distress than Belgians in 2018 ($\beta=-0.55$, CI95%=-0.90; -0.19). Another noteworthy finding was that having a mother born outside the EU initially acted as a protective factor against psychological distress, but became a risk factor after controlling for socioeconomic factors, in 2018. This suggests that second-generation migrants faced a higher risk of mental illness compared to Belgians. However, the country of birth of the father did not appear to affect psychological distress levels.

Table 6 Linear regression estimates* (β , CI95%) for factors influencing psychological distress (GHQ-12 score) among adults aged 15-65 since 1997

	Model 1		Model 2		Model 3 (Data from 2013 to 2018)		Model 4 (Data from 2013 to 2018)	
Ethnicity	Yes		Yes		Yes		Yes	
SES (age, sex, education)	No		Yes		No		Yes	
Parents' country of birth	No		No		Yes		Yes	
Ethnicity (Ref=Belgian)								
Morocco	0.10	(-0.24; 0.44)	-0.06	(-0.45; 0.33)	0.50	(0.12; 0.88)	0.06	(-0.39; 0.51)
Turkey	-0.26	(-0.91; 0.39)	-0.26	(-0.97; 0.46)	0.39	(-0.18; 0.97)	-0.14	(-0.79; 0.51)
EU country	0.10	(-0.09; 0.29)	0.05	(-0.17; 0.27)	-0.20	(-0.44; 0.03)	-0.28	(-0.57; 0.01)
Non-Eu country	0.21	(-0.13; 0.55)	0.13	(-0.28; 0.53)	-0.31	(-0.60; -0.01)	-0.55	(-0.90; -0.19)
Mother's country of birth (Ref=Belgium) for 2018 (Ref=2013)								
EU country					0.02	(-0.30; 0.34)	-0.01	(-0.40; 0.37)
Non-EU country					0.84	(0.30; 1.37)	1.38	(0.71; 2.05)
Father's country of birth (Ref=Belgium)								
EU country					0.07	(-0.25; 0.39)	0.12	(-0.26; 0.50)
Non-EU country					-0.12	(-0.65; 0.41)	-0.31	(-0.96; 0.34)

Discussion

Main results

The purpose of this study was to investigate ethnic differences in mental health and its determinants among adult populations in Belgium from 1997 to 2018, with a focus on ethnic differences. Results showed that the prevalence of MI changed over time. Overall, the prevalence of MI increased between 1997 and 2018 among all migrant and ethnic groups, except for the non-EU migrants, for whom the prevalence slightly decreased in 2018. Between 2013 and 2018, the prevalence of MI slightly decreased but remained higher among respondents with a Moroccan or Turkish background, compared to Belgians. Linear regression analysis highlighted the main effect of ethnicity on mental illness was not significant, even when socioeconomic factors were controlled. However, in 2018, being of non-EU country descent was associated with a decreased risk of psychological distress when the parent's country of birth was accounted for. Interestingly, in the same year, it was found that having a mother born outside the EU constituted a higher risk of psychological distress.

Overall, the result suggested that there were ethnic disparities in the prevalence of mental illness in the population surveyed in Belgium. Specifically, the proportion of individuals with MI was not significantly different among MEM groups in earlier years, from 1997 to 2008, but became significantly different in more recent years, with a greater increase observed among respondents with a Moroccan or Turkish background. This result was in line with national and international epidemiology for psychopathology in Moroccan and Turkish descent (99, 109). However, it was found that socioeconomic differences explained the major ethnic differences in MI prevalence over the years. This result was also concordant with a previous study based on the third European Social Survey (97).

It is worth noting that MEM currently account for around 20% of Belgium's population, with the largest groups hailing from Morocco, Turkey, and Italy (44). Despite this, immigration remains a politically sensitive issue in Belgium, and debates surrounding integration, social cohesion, and the economic impact of immigration continue to dominate public discourse. Looking back to the 1960s, Belgium experienced a significant wave of migration following the signing of bilateral agreements with countries like Turkey, Morocco, and Tunisia to recruit labour workers. Many of these immigrants ended up staying in Belgium and brought over their families, leading to an increase in the immigrant population. In the 2000s, there was a rise in the ratio of Moroccan citizens entering the country

compared to other foreigners, increasing from 4.5% to 10.7% after the 1999 regularisation campaign. However, since 2004, this percentage has decreased, with Moroccan immigration accounting for only 5% of foreign entries in 2012.

In 2008, Belgium experienced an economic recession which intensified the economic exclusion and unemployment of people with MI, such as ethnic minorities, compared to the general population (453). Moreover, negative attitudes towards migrant and ethnic minority groups could have been exacerbated during economic hardship, potentially impacting their mental health status (453). Previous research has indicated that individuals facing stigma related to their mental health tend to have worse life chances than those without mental illness (151). During a crisis, individuals may also experience a lack of belonging to Belgian society, further impacting their mental health. Studies have shown a correlation between acculturation and mental health in other contexts (232), and these results might help explain the significant increase in MI prevalence among respondents with a Moroccan or Turkish migration background in 2013.

A previous study highlighted that second-generation migrants had a higher MI risk than first-generation (97), which is consistent with our findings in 2018, showing that having a mother born outside European countries increased the risk of MI. The mental health of parents may also play a role in influencing their children's (mental) health, as demonstrated in other contexts (454). Another potential explanation for this increased risk among people with a second-generation migration background is that they often experience an identity conflict, as they attempt to navigate between the culture of their parents and the culture of the society they grew up in (230). This struggle can lead to anxiety and depression, which may increase the likelihood of mental health problems (230). Additionally, people with a second-generation migration background may face discrimination and prejudice due to their migration or ethnic background in various domains of life, including education, labour markets, housing, and health care, which can also contribute to poorer mental health outcomes (96).

However, there is not enough data to assess the evolution of MI prevalence among second-generation MEM since 1997. Therefore, it is recommended that future population health surveys collect data on the country of birth of the father and mother more precisely to describe the evolution of the mental health status of people with a second-generation migration background. Further, this recommendation is in line with a previous article that recommended "to add additional purposive sampling strategies to the National Health Surveys to routinely collect data in representative MEM samples" in the European context (455). This could help to adapt healthcare to specific ethnic groups, including second-

generation migrants, which represent an important migrant and ethnic group in Belgium.

Researcher has noted the underrepresentation of ethnic minority groups in national health surveys (440). In our study, the ethnic minority groups ranged from 0.7% of the sample, represented by the EU migrants in 2004, to 13.4% of non-EU migrants in 2018, which was not comparable to the 30.2% of the Belgian population with a foreign country of birth (44). This underrepresentation leads to underpowered samples and non-statistically significant conclusions in research on health ethnic inequalities (123). The underrepresentation could be due to language barriers or the lack of instruments available in the respondent's language (97, 440). Although the study's language was available in the three national languages and English for foreigners, we could not determine whether non-language speakers were adequately assisted in translating the survey. Another possible explanation is a cultural bias in their GHQ-12-items answers, which may not reflect their actual mental health status. This underrepresentation of migrants and ethnic minorities in mental health surveys has led to rare and patchy mental health disorder prevalence studies among them, according to several studies (96, 97, 440). We would recommend translating large health interview surveys into other languages for future research to obtain better samples of migrant and ethnic minority populations.

Strengths and limitations

One strength of this study is that it provides the first nationwide community-based results on the evolution of mental health risk prevalence and its determinants in important ethnic groups in Belgium. Another strength main is the use of six cross-sectional data-collection waves. These data allowed us both to assess the evolution over the past 20 years and to compare different ethnic groups with native Belgians.

One limitation of this study is that ethnicity was not self-reported as it is commonly the case in other countries, but instead computed variable based on respondents' country of birth and nationality. To obtain more sensitive and accurate information regarding respondents' ethnicity, we recommend that future research include a self-reported ethnicity question in health interview surveys. This approach is recommended by guidelines such as those provided by the National Institutes of Health in the United States (456) and by the National Health Service in the United Kingdom (457). Indeed, as shown in our results, ethnicity can be an important factor in determining mental health outcomes and access to healthcare services. By collecting these data on self-reported ethnicity, researchers and policymakers could better identify and address health ethnic disparities among different ethnic

groups in Belgium. Further, self-reported ethnicity can provide insight into cultural factors such as language, religion, and customs that might impact mental health. Therefore, including self-reported ethnicity questions in the health survey can be used to inform public health policy ensuring that health care is distributed equitably among different MEM groups. Indeed, it is unacceptable that different ethnic groups continue to receive unequal care nowadays.

Another limitation is the composition of our sample, as previously mentioned. The subgroup of ethnic minorities and migrants included in the study may be not representative of the immigrant populations in Belgium. The Belgian Health Interview Survey does not allow us to measure ethnic inequalities in mental health. To remedy this, we could oversample certain migrant and ethnic groups in health interview surveys to ensure that enough representative data is collected regarding their mental health.

Another limitation could be the decision to group people from non-European countries into one common ethnic group, as their ethnic background and socioeconomic status may vary and influence their mental health status. However, this decision was made to ensure sufficient statistical power for our analyses. To address this limitation, we recommend collecting more precise data on participants' country of birth to enable analysis of each ethnic subgroup separately. Nonetheless, this study is the first to describe the evolution of MI prevalence among different ethnic groups in Belgium and provides insights into ethnic disparities in mental health over time.

Conclusion

In conclusion, people with a Moroccan or Turkish migration background in Belgium face significant persisting mental health disparities compared to Belgians. This study has also shown that these groups have a higher risk of MI compared to Belgians and that these disparities have increased since 2013. It is imperative to collect more accurate data on ethnic origin in large health interview surveys and develop targeted interventions and policies to support the mental health of ethnic minorities and migrants in Belgium. By doing so, we can work towards reducing these ethnic disparities and promoting better overall (mental) health outcomes for all ethnic groups in the country.

Declarations

Ethics approval and consent to participate

Written informed consent was obtained from all subjects involved in the study. Data from the six successive cross-sectional waves of the Belgian Health Interview Survey were gathered by the Unit of Epidemiology, “Sciensano” Scientific Institute of Public Health, in collaboration with Statbel (Directorate General Statistics—Statistics Belgium). The sampling and survey methods were carried out according to the Belgian privacy legislation and approved by the Human Ethics Committee of Ghent University Hospital (EC UZG).

Availability of data and materials

The data that support the findings of this study are available from Sciensano but restrictions apply to the availability of these data, which were used under license for the current study, and so are not publicly available. Data are however available from the authors upon reasonable request and with permission of Sciensano.

Competing interests

The authors declare that they have no competing interests.

Funding

This study was funded by Belgian Research Action through Interdisciplinary Networks (BELSPO), grant number B2/191/P3/REMEDI. The funder of the study had no role in study design, data collection, data analysis, data interpretation, or the writing of the report.

Authors' contributions

CD, PS and VL contributed to study conceptualisation. CD, PS and VL contributed to data acquisition, methodology, data analysis. CD were responsible for drafting this paper. CD, PS and VL interpreted the data, revised and contributed to the report. All authors have read and approved the final version of this report and had final responsibility for the decision to submit for publication.

Acknowledgements

The authors gratefully acknowledge Sciensano, the Belgian Institute for health, for access to data from the Belgian Health Survey. They also thank Laura Jones for her linguistic revisions.



CHAPTER 5

IMPLICIT AND EXPLICIT
BIASES IN MULTICULTURAL
PRIMARY CARE:
THE CASE OF TRAINEE
GENERAL PRACTITIONERS

Chapter 5 – Implicit and explicit biases in multicultural primary care: the case of trainee general practitioners

This paper was published in BMC Primary Care in April 2022¹² and can be accessed through the following link: <https://rdcu.be/dku2z>.

Duveau et al. *BMC Primary Care* (2022) 23:91
<https://doi.org/10.1186/s12875-022-01698-8>

BMC Primary Care

RESEARCH

Open Access

Implicit and explicit ethnic biases in multicultural primary care: the case of trainee general practitioners



Camille Duveau^{1*}, Stéphanie Demoulin², Marie Dauvrin^{1,3}, Brice Lepière¹ and Vincent Lorant¹

¹Institute of Health and Society, UCLouvain, Brussels, Belgium

²Faculty of Psychology and Educational Sciences, UCLouvain, Louvain-la-Neuve, Belgium

³Belgian Health Care Knowledge Centre, KCE, Brussels, Belgium

Corresponding author: Camille Duveau, Institute of Health and Society, UCLouvain, Clos Chapelle-aux-champs 30, bte B1.31.15 - 1200 Woluwe-Saint-Lambert, Brussels, Belgium, e-mail: Camille.duveau@uclouvain.be

¹² Duveau, C., Demoulin, S., Dauvrin, M., Lepière, B., & Lorant, V. (2022). Implicit and explicit ethnic biases in multicultural primary care: the case of trainee general practitioners. *BMC Primary Care*, 23(1). <https://doi.org/10.1186/s12875-022-01698-8>.

Abstract

Background

General Practitioners (GPs) are the first point of contact for people from ethnic and migrant groups who have health problems. Discrimination can occur in this health care sector. Few studies, however, have investigated implicit and explicit biases in general practice against ethnic and migrant groups. This study, therefore, investigated the extent of implicit ethnic biases and willingness to adapt care to migrant patients among trainee GPs, and the factors involved therein, in order to measure explicit bias and explore a dimension of cultural competence.

Methods

In 2021, data were collected from 207 trainee GPs in the French-speaking part of Belgium. The respondents passed an Implicit Association Test (IAT), a validated tool used to measure implicit biases against ethnic groups. An explicit attitude of willingness to adapt care to diversity, one of the dimensions of cultural competence, was measured using the Hudelson scale.

Results

The overwhelming majority of trainee GPs (82.6%, 95% CI: 0.77 – 0.88) had implicit preferences for their ingroup to the detriment of ethnic and migrant groups. Overall, the majority of respondents considered it the responsibility of GPs to adapt their attitudes and practices to migrants' needs. More than 50% of trainee GPs, however, considered it the responsibility of migrant patients to adapt to the values and habits of the host country.

Conclusions

This study found that the trainee GPs had high to very high levels of implicit ethnic bias and that they were not always willing to adapt care to the values of migrants. We therefore recommend that they are made aware of this bias and we recommend using the IAT and Hudelson scales as educational tools to address ethnic biases in primary care.

Keywords: General Practitioner, discrimination, ingroup relationship, migrant health, racial bias, cultural competence, implicit association test

Introduction

As aspiring health care professionals, trainee General Practitioners (GPs) care for a diverse and multicultural population in their practice (458) and are usually the first point of contact for ethnic and migrant patients within the health care system. They are, therefore, key to the equity of the health care system. Nevertheless, even GPs who are well-intentioned may be vulnerable, like anyone else, to implicit biases and may lack willingness to adapt care to migrants, a willingness that is a prerequisite of cultural competence (379). This could lead GPs to discriminate unintentionally against their ethnic and migrant patients (258, 459) especially if they are under time pressure, lack solid knowledge/information needed to make a decision, or are affected by cognitive overload or fatigue (166), or due to inappropriate intercultural contact (306) less concordant physician-patient ethnicity, which is associated with less favourable patient ratings care (318), stereotyping, prejudice, political attitudes (460), or organisational and institutional factors (461). Implicit ethnic biases among health care professionals and cultural competence are important factors that contribute to health care disparities (260, 368).

In social psychology, a “bias” is defined as a prejudicial attitude towards a group (hereafter, the exogroup) and its members, of which the holder may or may not be aware. Implicit bias is often automatically activated and can lead to impaired judgement and to negative evaluation of the exogroup (263). Implicit ethnic bias has been shown to play a role in differential recommendations by physicians for managing disease (260), disparities in empathy (281) and differential drug prescriptions, interaction with patients, and treatment decisions (260).

To address these differences in care for ethnic/migrant groups, the report *Unequal Treatment* by the Institute of Medicine recommended exploring healthcare providers’ conscious (explicit bias) and unconscious perceptions (179). This report also recommended developing and enhancing cultural competence training for health care professionals. Over the past decade, many cultural competence programmes have been initiated in health care systems to improve the relationships between health care professionals and patients with diverse cultural backgrounds, and to enable them to work and interact more effectively with those patients (368). These programmes, however, are based on the assumption that health professionals are motivated and accept responsibility for adapting to ethnic diversity (380), an assumption that may need to be verified. This study aims to add to the literature by measuring implicit and explicit biases against ethnic/migrant groups.

A large body of research has investigated unconscious biases and levels of cultural competence among health care professionals. This research found significant evidence of implicit bias among care professionals against African Americans, ranging from slight bias to high levels of bias, but found low levels of explicit bias against this ethnic group. The research also found a weak association between self-perceived cultural competence and levels of implicit bias (260, 287). Little is known, however, about these issues within the European context and a recent study comparing clinicians' racial biases in The United States and France concluded that health providers' biases differed between cultures and countries (290).

So far, most health care studies have been carried out in the United States and have compared African American patients with White patients. There is a lack of data on unintentional ethnic and racial discrimination among general practitioners in Europe and too little attention has been paid to the North African population. This applies particularly to people of Moroccan descent, who constitute the largest and fastest-growing minority group in countries in the European Union (EU), including Belgium, where the Moroccan population doubled between 1991 and 2014¹³. This ethnic group is also disproportionately at risk of poor health outcomes, such as more depressive symptoms (96) and higher mortality caused by diabetes and infectious diseases (462).

To the best of our knowledge, few studies have investigated the extent of bias among general practitioners against racial/ethnic groups in relation to GPs' willingness to adapt to diversity. A recent study highlighted the need to increase recognition and awareness of ethnic disparities in health and health care among health care professionals (463). This paper aims to expand this area of research by investigating (a) the level of implicit ethnic bias among trainee GPs and (b) whether this level of bias varies as a function of a GP's willingness to adapt care to migrants or as a function of openness to cultural diversity which, in this paper, includes intercultural contact, political opinions, and workload (time pressure).

Methods

Design & participants

This prospective quantitative study used an observational design. The design measures implicit ethnic biases and the specific explicit attitude of willingness to adapt to diversity, a prerequisite of cultural competence. To encourage trainee general practitioners to respond to the online survey, we offered to present the

¹³ Cf. Myriatics. (2015, décembre). Myria. <https://www.myria.be/fr/chiffres/myriatics>

overall results to them anonymously and give them an opportunity to comment on and discuss the results in small groups.

Between February and March 2021, we contacted 220 French-speaking Belgian GPs, who were in the second year of their three-year internship by email in one of the important French-speaking universities in Belgium. Of those trainees, 207 completed the online survey (a participation rate of 94%) (Male = 68 (33.0%); Female = 139 (67.0%); Mean age = 26.7 years ($\pm$ 2.1); See Table 7).

Measures

Implicit Association Test

The Implicit Association Test (IAT) is a validated tool that is used, in social psychology, to assess implicit biases, which can be associated with a wide range of behaviours and attitudes (464). As bias is often activated by situational cues such as a first name (459), respondents took an IAT with French-language and North African first names¹⁴. The IAT was designed to measure implicit ethnic bias. The IAT with North African first names uses reaction times to assess the strength of automatic associations between target pairs, each consisting of an ethnicity (e.g. French-language or Belgo-Moroccan first names), and a category (e.g. positive or negative). This test provides a D-score ranging from -2 (respondent has implicit associations of positive words with North African first names) to +2 (respondent has implicit associations of positive words with French-language first names). We used standard cut-offs to classify the D-scores according to the strength of the implicit associations: “neutral” (< 0.15), “slight” (< 0.35), “moderate” (< 0.65), and “strong” ($\geq$ 0.65), and the reverse for scores with a negative value (233).

Hudelson Scale¹⁵

The trainee GPs completed the validated Hudelson scale, which assesses one dimension of cultural competence: the perception of relative responsibility for adapting care to migrant patients (379). This was assessed using descriptions of five potential situations: (1) when migrants' values and habits differ from those of the host country, (2) when the patient does not speak the language of the host country, (3) when the patient expresses the wish to be treated by a male/female health professional, (4) when the patient cannot read the language of the host country, and (5) when the patient's health beliefs contradict the knowledge of the health

¹⁴ See Appendix 1

¹⁵ See Appendix 2

professionals. The trainee GPs had to state their opinion about whose responsibility it is to adapt in those situations by ticking a score between 1 (it is the professional's responsibility) and 7 (it is the migrant's responsibility), with 4 meaning that the responsibility is shared between the patient and the professional.

Regarding openness to cultural diversity, we expected left-wing political opinions, the proportion of migrants among the patients GP cared for, more social interactions with people of North-African origin and a lighter workload to be associated with less unintentional discrimination (296). To compute the frequency of intercultural contact, we created a score composed of four variables: (1) presence of North-African people in their neighbourhood, (2) daily interaction with North-African people, (3) having North-African friend(s), and (4) having North-African colleague(s). We obtained a score out of 4 points (where 0 means that the respondent has no contact with North Africans and 4 means that the respondent frequently interacts with North Africans). Control variables were added to the models, such as age, sex, ethnicity, and type of practice (e.g. solo, group, or mixed), to avoid potential selection bias.

Reactions and feedback sharing

The trainee GPs were presented with feedback on the aggregate results and then asked to comment on the results. We collected 204 trainee GPs' anonymised open-ended reactions to their IAT and Hudelson scale scores. We then divided them into small groups of 4-5 to discuss the experience and explore possible solutions.

Statistical analysis

Quantitative analysis

First, we computed descriptive statistics of variables. We computed correlations between the level of implicit bias and the Hudelson score to check whether they overlapped. Then, linear regression was performed to relate the two outcomes (implicit and explicit attitudes) with the following variables: political opinions, practice area, frequency of intercultural contact, workload, and proportion of patients of foreign origin, controlling for variables such as sex, type of practice, and ethnicity. We ran one model for each of the following explanatory variables: political opinion, frequency of intercultural contact with North Africans, frequency of patients of foreign origin in consultations. Statistical analysis was performed using SAS 9.4.

Reactions and feedback sharing

With the aid of NVIVO, we grouped similar quotes from the written reactions into main themes in order to explore the general reactions to the results and the possible solutions that trainee GPs highlighted within the small groups.

Results

Participants

Two hundred and seven General Practitioners in the second year of a three-year specialisation in general medicine responded to the online questionnaire. Of those respondents, two hundred and four took part in the discussion about the presentation of their results from the IAT and the Hudelson scale. Most of the participants were of Belgian nationality (89.0%). Participants self-reported as White (78.5%), Arab (8.3%), or of mixed/other ethnicity (9.3%). A third of the respondents self-reported as Catholic (39.1%). Nearly 70% of the respondents were not very religious or not religious at all. In terms of political opinion, the majority selected Centre (31.9%) and 29.5% of the sample identified as right-wing.

Most worked in suburban areas (33.1%). A quarter of the respondents worked in rural areas. A minority (7.8%) worked in the seven largest cities in the Wallonia-Brussels Federation (Brussels, Liège, Verviers, Namur, Charleroi, Mons, and Tournai). The area was computed based on their medical practice's postcode.

The average score for frequency of contact with North Africans was 2.5/4 (± 1.2), meaning that the respondent sometimes interacts with North African friends, colleagues, or neighbours. In their practice, they visit 10.2 patients per day on average, 33% (± 30.4) of whom are foreign patients.

Table 7 Demographic characteristics, implicit bias, and cultural competence score of participants (n = 207)

Characteristics	% or mean (std)
Age (years)	26.7 (2.1)
Sex (female)	67.0
Type of practice	
Solo	27.7
Group	69.4
Mixed	2.9
Ethnicity	
White	78.5
Arab	8.3
African	3.9
Mixed or other	9.3
Religion	
Don't want to reply	4.4
Catholic	39.1
Muslim	10.1
Atheist	31.9
Other	14.5
Political opinion	
Don't want to reply	10.6
Right-wing liberal	29.5
Centre	31.9
Left-wing (e.g. socialist)	28.0
Practice area	
Urban	7.8
Suburban	33.1
Rural	25.3
Missing values	33.8
Frequency of contact with North Africans (/4)	2.5 (1.2)
Workload (no. of patients/day)	10.2 (5.6)
Proportion of patients of foreign origin (/100)	33.0 (30.4)

Characteristics	% or mean (std)
Implicit Association Test score (-2, 2)	0.53 (0.44)
Hudelson score (5, 35)	18.9 (5.1)

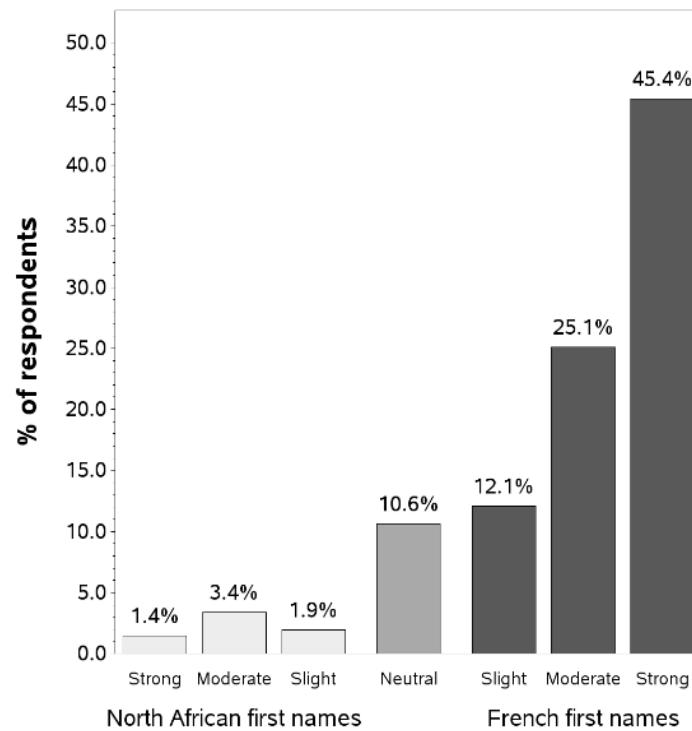
Implicit Association Test (IAT)

Figure 11 presents the distribution of implicit associations of positive/negative words with French-language first names compared with North African first names. The IAT mean score (D-score) was 0.53 ($\pm$ 0.44), indicating a moderate association of positive words with French-language first names over North African first names. The majority of respondents (82.6%, CI 95% 0.77–0.88) had a positive D-score, i.e. an implicit association of positive words with French-language first names. Several of the scores for implicit associations stand out.

Around 7% of the scores were negative, meaning that the trainees had an implicit association of positive words with North-African first names. Of the respondents with negative scores, 4.3% were Arab, 3.4% were White, and 1.9% were of mixed/other ethnic origin. The scores varied significantly according to ethnicity ($\chi^2=88.6$, $p < .0001$). In contrast, about 12% had a slight implicit association of French-language names with positive words, while 45.4% had a strong implicit association of French-language names with positive words.

It is also worth noting that approximately 10% of the respondents showed no group preference.

Figure 11 Distribution of implicit associations for first names associated with different ethnic groups



Hudelson scale

Table 8 presents the perception of the relative responsibility to adapt to migrant patients in health care among trainee general practitioners. The five items of the Hudelson scale were moderately correlated (Pearson coefficients 0.09–0.46) and the internal consistency coefficient (Cronbach's α) was 0.62. The average score for Hudelson scale was 18.9/35 ($\pm$ 5.1), which means that adapting was considered to be mainly the responsibility of health care professionals. The majority of trainee GPs considered it to be mainly the health professionals' responsibility to adapt when the patient expresses the wish to choose the sex of the health care professional, when he/she cannot read the language of the host country, and when his/her health beliefs contradict medical knowledge. Two items, however, differed from this trend. Roughly 38% of respondents considered it the responsibility of health care professionals to adapt to migrants when the patient does not speak the language of the host country. Approximately 35% considered it the responsibility of the patient to adapt and 27.5% considered it the responsibility of both the

professional and the patient to adapt. This result is quite surprising because, when it comes to providing written information in the patient's language, respondents placed the responsibility on the health care professional (50.7%). When the migrant's values and habits differ from those of the host country, however, GPs considered it to be the patient's responsibility to adapt (58.5%).

There was a significant small positive correlation between implicit ethnic bias and cultural competence ($r = 0.172$, $p < 0.05$), suggesting that respondents for whom French-language names had more implicit positive associations were also more likely to consider it the migrants' responsibility to adapt. Appendix 3 presents a graphical representation of the correlation between the IAT score and the Hudelson scale.

Table 9 provides the betas from the linear regressions for the factors associated with the IAT and with the Hudelson score. Respondents' ethnic origins influenced the level of implicit ethnic bias. Being of Arab ethnicity or of other or mixed ethnic origin reduced the strength of implicit negative ethnic associations with North African first names ($\beta = -0.54$, $p < 0.001$, $\beta = -0.29$, $p < 0.05$ respectively). Having left-wing political opinions also had a negative correlation with the IAT score ($\beta = -0.16$, $p < 0.05$). Nevertheless, other individual and contextual variables such as age, sex, type of practice, practice area, frequency of contact with North Africans, and workload were not associated with the level of implicit bias.

Concerning the Hudelson score, being a woman ($\beta = -2.02$, $p = 0.01$) was associated with considering it to be mainly the health professional's responsibility to adapt to migrants. Respondents with left-wing political opinions also had a significant tendency to place the responsibility on health care professionals ($\beta = -3.07$, $p < 0.01$). Age, type of practice, having liberal political opinions, practice area, frequency of contact with North Africans, workload, and frequency of patients of foreign origin were not associated with considering it the health care professional's responsibility to adapt to migrants.

The R^2 ranged between (0.16-0.24) and (0.09-0.17) for the IAT score and the Hudelson score, respectively. Appendix 4 presents the details of the R^2 for each factor.

Table 8 Relative responsibility to adapt of migrants and health professionals, as perceived by trainee GPs (2021): % per item (n = 207)

	The responsibility lies with the health professionals	The responsibility lies with both health professionals and patients	The responsibility lies with the patients	Total
When migrants' values and habits differ from those of the host country (%)	10.6	30.9	58.5	100
When the patient does not speak the language of the host country (%)	37.7	27.5	34.8	100
When the patient expresses the wish to be treated by a male or female doctor (%)	60.4	15.0	24.6	100
When the patient cannot read the language of the host country (%)	50.7	21.3	28.0	100
When the patient's health beliefs contradict medical knowledge (%)	46.4	26.1	27.5	100

Table 9 Factors associated with Implicit Association Test and with the Hudelson score: betas from the linear regression models

Covariates:	Implicit Association Test (-2, 2)			Hudelson score (5-35) ^b		
	β^a	CI _{95%}	p-value	β	CI _{95%}	p-value
Age (years)	0.00	(-0.03, 0.04)	0.93	0.03	(-0.09, 0.68)	0.13
Sex (ref = male)						
Female	-0.05	(-0.18, 0.08)	0.49	-2.02	(-3.46, -0.57)	<0.01
Type of practice (ref = Solo)						
Group practice	0.07	(-0.07, 0.21)	0.32	-1.24	(-2.75, 0.28)	0.11
Mixed practice	0.01	(-0.34, 0.37)	0.94	-2.68	(-6.61, 1.25)	0.18
Ethnicity (ref = White)						
Arab	-0.54	(-0.76, -0.31)	<.0001	-0.41	(-2.90, 2.08)	0.75
African	-0.08	(-0.40, 0.23)	0.60	1.57	(-1.96, 5.09)	0.38
Other or mixed	-0.29	(-0.51, -0.07)	0.01	-1.51	(-3.96, 0.94)	0.23
Political opinion (ref = Right-wing)						
Centre	0.03	(-0.17, 0.12)	0.72	-0.36	(-1.97, 1.24)	0.66
Left (e.g. Socialist)	-0.16	(-0.32, -0.01)	0.03	-3.07	(-4.74, -1.40)	<.001
Practice area (ref = Urban)						
Suburban	-0.04	(-0.25, 0.16)	0.67	-1.92	(-4.30, 0.46)	0.11
Rural	-0.05	(-0.26, 0.17)	0.65	-0.42	(-2.94, 2.09)	0.74
Frequency of contact with North Africans	-0.05	(-0.10, 0.01)	0.07	0.13	(-0.49, 0.74)	0.69
Workload (no. of patients/day)	-0.00	(-0.01, 0.01)	0.95	0.06	(-0.06, 0.19)	0.30
Proportion of patients of foreign origin	-0.04	(-0.26, 0.17)	0.70	-0.37	(-3.00, 2.26)	0.78
R ² -range	(0.16-0.24)			(0.09-0.17)		

^a: β are adjusted for age, sex, ethnicity and type of practice; bold coefficients have p-value <0.05. ^b: Low scores indicate that the responsibility to adapt is considered to lie with the health care professionals, whereas high scores indicate that it is considered to lie with the migrants. c: Table with all R-squared is in Appendix 4.

Reactions and feedback sharing

From the comments, it appears that some of the GPs were a bit sceptical about their implicit ethnic association scores and questioned the method and the existence of their own biases. A number of trainee GPs also highlighted the need for them to be aware of biases: *“Very impactful. It reveals that even unconscious biases can exist. This test confirms how important it is to know that these biases exist in order to be able to fight them consciously in our practice...”* (Participant 165).

We found few individual or contextual explanations in the regression analysis of implicit biases, aside from ethnicity. The influence of their ethnicity is also demonstrated in the comments: *“our culture played an unconscious bias in this test.”* (Participant 36).

Unlike the quantitative results, the association between political opinions and propensity to place the responsibility for adapting to migrants on health professionals was not addressed in the comments. Only one comment referred to political opinions: *“Surprised by the 60% (who said that the migrant should adapt to the values of the host country) ... we are GPs not politicians... the main thing is the patient’s health.”* (Participant 132)

They also shared solutions with one another to implement in their practice as GPs. They suggested keeping the Hudelson scale in mind in their everyday practice. It will help them to remember that in most situations they bear responsibility for adapting to migrant patients. GPs also emphasised the importance of being conscious of one’s own biases in order to fight against them.

Finally, several trainees proposed “cultural openness” as a way to reduce the effects of these biases and improve the quality of care, such as working in an intercultural team, learning several languages and learning about different cultures.

Discussion

Main findings

This study set out to assess the trainee GPs' implicit biases and their willingness to adapt care to diversity. Our results indicate that the majority of our trainees had a moderate to strong level of implicit bias favouring French-language first names over North African ones. This result applied to all sociodemographic characteristics, except ethnicity and political opinion. On the whole, trainees were willing to adapt care to migrants in most care situations, with two exceptions: when a patient did not speak the language of the host country and when the immigrants' values and habits differed from those of the host country. This result applied to almost all sociodemographic groups.

Implicit Association Test

The literature has often reported implicit associations with ingroups (and biases against exogroups) that are stronger than those found in this research (287). Our study, however, does not support Allport's finding that reduced implicit bias is associated with higher frequency of positive contact with the outgroup (296). One possible explanation for this is the fact that we only assessed the frequency of contact with North Africans, not quality of that contact. Furthermore, the p-value for the variable "*frequency of contact with North Africans*" in the regression (Table 9) was 0.07, which suggests that either this measure needs to be assessed more accurately, for example, by including an assessment of the quality of trainee GPs' relationships with members of the outgroup, or interaction with outgroup members does not reduce implicit bias among trainee GPs.

One important finding was that biases affect everyone and few protective factors exist in GPs' working environments, apart from their own ethnicity and political opinions. This result has been demonstrated previously by Nosek et al. (465), who found a relationship between right-wing ideology and stronger implicit bias. They also concluded that bias could vary according to "*the constraints that culture imposes on individual attitudes*", which could explain the influence of ethnicity on the IAT score. We found similar results in several studies, which showed that Black providers also had significantly weaker ethnic implicit associations for both White and Black people than White respondents (287, 466). The authors, however, also found lower levels of ethnic bias among women, which was not the case with our results.

Our results suggest that completing an IAT and discussing the results could help to reduce the negative impact of bias on health professionals' attitudes. Indeed, it could reduce both implicit and explicit bias among health providers with higher levels of implicit bias and thereby improve clinical interaction and verbal communication and make practice more patient-centred (259).

Hudelson score

For three out of five situations, the majority of trainee GPs were willing to bear the responsibility to adapt care to migrants. They were more reluctant, however, to adapt to migrants' values and habits. These findings are in line with those of Hudelson et al. (379). In the respondents' feedback, we noticed that some were surprised by this result. One of the respondents pointed out that they were GPs and not politicians. Our statistical analysis provides some explanations: adaptation is related to political orientation and the topic of values/habits is certainly a political issue, also from the GPs' perspective. In a less competitive market, health care professionals may also feel less responsible for adapting to the values and habits of their patients as patients are free to move to another GP if they are not satisfied. One might thus speculate that the decrease in the percentage of GPs among all doctors in Belgium over the last decade has enhanced the market power of GPs (467).

Paradoxically, although more than half of the respondents see it as the health professional's responsibility to adapt when the patient cannot *read* the language of the host country, opinion was spread evenly across the board when the patient cannot *speak* it. While Dauvrin et al. found that physicians took responsibility for providing interpreters (377), our respondents disagreed with that. One explanation could be the extra time and resources needed to provide an interpreter during an everyday consultation when GPs are often already under time pressure. Moreover, access to intercultural mediators remains limited in primary care.

A greater willingness to adapt was found among female GPs and those with left-wing political opinions. This is in line with previous research which found that female providers were more engaged in patient-centred communication and that African-American patients were more likely to be seen by female GPs (379). Another explanation could also be that women tend to be more altruistic than men, when altruism requires more resources. We could therefore speculate that diversity might be considered as a form of altruism which demands more equalitarian behaviours, behaviours more likely to be found among women too (468).

The combination of the findings from the IAT and the Hudelson scale provides some support for the suggestion that there is a need to increase recognition and awareness of implicit ethnic bias and willingness to adapt to diversity in order to become more culturally competent. The weak correlation between the two concepts suggests that these are two different issues, requiring different interventions. The R^2 was also weak for both the IAT scores and the Hudelson scores, meaning that our model did not fully explain the variation of these scores. Despite increased interest in providers' biases in the literature and in medical education, there is still a lack of effective training methods. In a narrative review of the reduction of implicit bias in health care, Zestcott et al. (295) suggested that public and professional awareness is a crucial starting point for efforts at reduction.

Limitations

This study has some limitations, however, and the data must be interpreted with caution because they cannot be extrapolated to all trainee GPs. We recruited trainee GPs in their second year of internship from one important French-speaking university in Belgium, accounting for roughly a fifth of all trainee GPs in the country. In order to compare the data internationally, therefore, it would be useful for this study to be replicated in other Belgian medical schools and in other European countries. This study should be replicated among qualified GPs so that the results can be compared with those of trainees to see whether the extent of bias and willingness of trainee GPs to adapt to migrants' changes over time. Further qualitative research is also required, such as in-depth interviews with respondents to gain a better understanding of their reactions.

We found several criticisms of the IAT regarding its construct validity and questioning the biases that it actually measures (469). Finally, we considered it to be a reasonable research tool for assessing the level and distribution of implicit bias in a group (470). Although the IAT has been criticized, most medical school programmes lack formal methods for assessing and reducing bias among medical students (471). Moreover, completing an IAT also helps to reduce explicit biases via less direct mechanisms such as patient interaction and non-verbal behaviour (293).

Conclusion

In conclusion, we believe that it is feasible to use the IAT to encourage trainees to engage with the topics of diversity and discrimination. The Hudelson scale was used to confront trainees with their levels of cultural competence. The debriefing on the results helped to raise awareness and sensitize the trainee GPs to the potential impact of their implicit and explicit biases in multicultural consultation. They also became aware that these biases could have an impact on their relationships and the way they care for patients.

One implication of this research is that it should be possible to use the results as a basis for reflection and discussion that could motivate health care professionals to tackle their ethnic biases. Another implication is the possibility of using the Hudelson scale as a tool to debate the extent of cultural competence among future GP. This debate could lead them to recognise and confront their own biases and to consider their responsibility as GP and how they could improve their intercultural interactions. The ethical approach to care, whereby a balance must be struck between patient autonomy, not doing harm, and helping could contribute to ensuring equitable healthcare in a diverse society (472). According to Razai et al. (463), diversifying health care *“workforces improves the performance of the entire healthcare system”* and could improve the relationship between GPs and patients with different ethnic backgrounds.

Future research could be carried out among people with more diverse cultural backgrounds to compare the results at the level of implicit biases. We could also interview respondents after a year of practice, to see whether being aware and sensitized influenced their practice and reduced unintentional discrimination. Further research should be carried out to investigate the relationship between GPs' implicit/explicit biases and attitudes towards migrant patients and the actual perceived discrimination reported by patients in Europe (258).

Another idea would be to give the IAT score and the Hudelson score to each respondent individually in order to investigate personal feedback in relation to the group's average scores in more depth.

We hope that this research will provide a promising starting point for working towards a more ethnically equitable health care system.

Declarations

Ethics approval and consent to participate

Informed consent was obtained from all participants. This study did not require the agreement of the ethics committee according to Belgian law, but all study methods were approved by the Hospital University Ethics Committee of the Université catholique de Louvain on 16 February 2021. Participants were provided with the legal information relating to consent. All information related to participants' consent and the GDPR is available on request. This is in accordance with the privacy legislation of 30 July 2018, the European General Data Protection Regulation (GDPR) of 25 May 2018, and Belgian regulations in effect.

Availability of data and materials

The datasets used and/or analysed during the current study are available from the corresponding author on reasonable request.

The datasets generated and analysed during this study are not publicly available due to the fact that consent was obtained from participants on condition that their data would not be shared, but are available from the corresponding author on reasonable request.

Competing interests

The authors declare that they have no competing interests.

Funding

Belgian Research Action through Interdisciplinary Networks (BELSPO), grant number B2/191/P3/REMEDI.

Authors' contributions

CD and VL contributed to study conception and design, data acquisition, methodology, data management and data analysis, interpretation of data, and creation of new software used in the work; they drafted the work and substantially revised it. SD, MD, and BL contributed to study conception, methodology, and interpretation of data and substantially revised the work.

Acknowledgements

We gratefully acknowledge our survey respondents who took time to participate in this survey. We are also grateful for the support provide by Professor Jean-Marc Feron.



CHAPTER 6

GP-RELATED FACTORS
ASSOCIATED WITH
DISCRIMINATION TOWARDS
MIGRANTS WITH MENTAL
HEALTH PROBLEMS

Chapter 6 – Individual, interpersonal, and organisational factors associated with discrimination in medical decisions affecting people with a migration background with mental health problems: the case of general practice

This article was published in *Ethnicity and Health*¹⁶ in November 2023 and can be accessed through the following link:

<https://www.tandfonline.com/doi/full/10.1080/13557858.2023.2279476>.

ETHNICITY & HEALTH
<https://doi.org/10.1080/13557858.2023.2279476>



OPEN ACCESS Check for updates

Individual, interpersonal, and organisational factors associated with discrimination in medical decisions affecting people with a migration background with mental health problems: the case of general practice

Camille Duveau ^a, Camille Wets ^b, Katrijn Delaruelle ^b, Stéphanie Demoulin ^c, Marie Dauvrin ^{a,d}, Brice Lepière ^a, Melissa Ceuterick ^b, Stéphanie De Maesschalck^e, Piet Bracke ^b and Vincent Lorant ^a

^aInstitute of Health and Society, Université catholique de Louvain, Brussels, Belgium; ^bHealth and Demographic Research, Ghent University, Ghent, Belgium; ^cPsychological Sciences Research Institute, Université catholique de Louvain, Louvain-la-Neuve, Belgium; ^dBelgian Health Care Knowledge Centre, KCE, Brussels, Belgium; ^eDepartment of Public Health and Primary Care, Ghent University, Ghent, Belgium

Corresponding author: Camille Duveau, Institute of Health and Society, Université catholique de Louvain, Clos Chapelle-aux-champs, B1.31.15, 1200 Brussels, Belgium. E-mail: camille.duveau@uclouvain.be.

¹⁶ Duveau, C., Wets, C., Delaruelle, K., Demoulin, S., Dauvrin, M., Lepière, B., Ceuterick, M., De Maesschalck, S., Bracke, P., & Lorant, V. Individual, interpersonal, and organisational factors associated with discrimination in medical decisions affecting people with a migration background with mental health problems: the case of general practice. *Ethnicity & Health*, 1-20. <https://doi.org/10.1080/13557858.2023.2279476>

Abstract

Objectives

Although people with a migration background (MB) have more unmet mental health needs than the general population, patients with a MB are still underrepresented in mental health care services. Provider bias towards these patients has been evidenced repeatedly but its driving factors remain elusive.

We assessed the moderating effect of the individual (e.g. age and ethnicity), interpersonal (e.g. healthcare provider trust), and organisational (e.g. perceived workload) factors on general practitioners (GPs) differential decision-making regarding diagnosis, treatment, and referral for a depressed patient with or without a MB.

Design

An experimental study was carried out in which GPs were shown one of two video vignettes featuring adult male depressed patients, one with a MB and the other without. Belgian GPs (n=797, response rate was 13%) had to decide on their diagnosis, treatment, and referral. Analysis of variance and logistic regression were used to analyse the effect of a MB, adding interaction terms for the explanatory variables.

Results

Overall, we found that there were ethnic differences in GPs' decisions regarding diagnosis and treatment recommendations. GPs perceived the symptoms of the patient with a MB as less severe ($F=7.68$, $p < 0.01$) and demonstrated a reduced likelihood to prescribe a combination of medical and non-medical treatments ($F=11.55$, $p < 0.001$). Those differences increased in accordance with the GP's age and perceived workload; at an interpersonal level, we found that differences increased when the GP thought the patient was exaggerating his distress.

Conclusion

This paper showed that lower levels of trust among GPs' towards their migrant patients and high GP workloads contribute to an increased ethnic bias in medical decision-making. This may perpetuate ethnic inequalities in mental health care. Future researchers should develop an intervention to decrease the ethnic

inequities in mental health care by addressing GPs' trust in their migrant and ethnic minority patients.

Keywords

Migrant; depression; ethnic; minority; mental health; discrimination; bias; determinants; experimental design; experiment

Introduction

Socioeconomic status partly explains why some migrant and ethnic minority (MEM) groups are at greater risk of mental illness. Ethnic disparities remain, however, even after adjusting for socio-economic factors (85, 154). Racial and ethnic disparities in health care can be explained in several ways, including by the fact that health care professionals themselves contribute to racial and ethnic disparities. Previous studies have shown that general practitioners (GPs) often have an implicitly or explicitly unfavourable attitude toward MEM patients (180, 291, 473). Although GPs' biases are part of the causal mechanism of unintentional discrimination in mental health care, few studies to date have investigated how such biases arise and how they influence GPs' decision-making (180, 474). Moreover, there is still little research focusing on healthcare providers' perspectives and their biases' impact on medical decisions in the field of mental health (174, 207). As "gatekeepers" who refer patients to mental health care, GPs play an important role in the identification and treatment of mental health problems and referral recommendations (475-477). Even unprejudiced GPs may face individual, interpersonal, or organisational conditions that result in discriminatory (e.g. unfair or unequal) decisions (478).

The literature also shows that mental health problems are often accompanied by stigma and discrimination, i.e. "unfair inequalities in power, resources, capacities, and opportunities across racial or ethnic groups" (219). Stigmatisation and discrimination in turn have consequences associated with mental illness, such as decreasing a person's likelihood of seeking treatment when necessary, which creates a vicious circle (438, 479, 480). Furthermore, people with a migration background (MB) are in double jeopardy because their prevalence of mental health problems such as depression, anxiety, and posttraumatic stress disorder (PTSD) is higher compared with people without a MB (97, 106). In the context of this research, individuals with a migration background are defined as those who currently reside in a country different from their country of birth, or who have undergone a change in nationality to align with their present country of residence. Additionally, individuals with a MB encompasses those whose at least one parent

entered the current country of residence as a migrant, as outlined by the United Nations (3).

Individual, interpersonal, and organisational factors

Spencer and Grace (174) identified different factors that contribute to discriminatory medical decisions: at (i) the *patient's level* (e.g. age, gender, and ethnicity), (ii) the *physician's level* (e.g. gender, ethnicity, experience, specialty, and implicit and explicit bias), (iii) the *interpersonal level* (e.g. ethnic discordance, i.e. a Moroccan patient who visits a Belgian GP, and interpersonal trust (318, 357, 481)), and (iv) the *organisational level* (e.g. location and type of organisation, time pressure and workload, practice culture and frequency of contact with people with other cultural backgrounds (257)). The relationship between those factors and ethnic disparities in GPs' decisions has been demonstrated frequently in the United States (US) but very rarely elsewhere. In Europe, evidence of the factors associated with ethnic disparities in GP's medical decisions remains scarce despite the huge ethnic diversity of GPs' waiting rooms. Belgium, a European country, is a good case study because the prevalence of depression among those with a migration background, e.g. people with Moroccan or Turkish roots, is especially higher, as compared to other European countries (96, 97, 446). It has been shown that discriminatory practices regarding the mental health of patients with a migration background are more prevalent in Belgium than in other European countries (97). Even compared to other European countries (like France or Germany), Belgium has a long history of immigration and has experienced significant migratory flow. A first wave of migration from Morocco took place during the 1960s, at a time of shortage in the labour market. Subsequently, during the 1970s and 1980s, labour migrants gradually transitioned into more long-term residents, with their families opting to establish roots in the host country they had initially migrated to (40). Today, Moroccan communities constitute one of the most significant ethnic groups in Belgium. Morocco remains one of the primary countries of origin for people naturalized in Belgium, along with Romania, Poland, the UK, and Italy. However, in 2022, out of the 36,871 asylum seekers who arrived in the country, Moroccan populations were less represented, with a larger number of individuals originating from countries such as Afghanistan, Syria, Palestine, Burundi, and Eritrea. In 2023, nearly one-fifth of Belgium's population (19,7%) holds foreign nationalities as their first registered nationality, and up to 40% of the population of Brussels, the country's capital. (44, 482). Migration is still an important issue today.

There is a need, therefore, to better understand which factors are associated with those discriminatory decisions (483). For instance, in the US, racial disparities based on the colour of people's skin have dominated the research agenda, whereas in

Europe, the term “race” has been superseded by “ethnicity” (484). In Europe, ethnicity is mainly defined by a person’s country of birth or ancestry and cultural differences such as language (484).

Aims

This paper assessed the association between GPs’ individual, interpersonal, and organisational factors and the differences between medical decisions affecting a depressed patient with or without a MB.

At the individual level, we hypothesised that the medical decisions of older male ethnically discordant GPs who more often placed the responsibility to adapt care on the person with a migration background would be more affected by the patients’ migration background (473, 485). At the interpersonal level, we hypothesised that GPs who were less trusting of the patient with a migration background would also make less favourable decisions (357, 486). Finally, for the organisational factors, we hypothesised that decisions made by GPs with a heavier workload would be more affected by the patient’s migration background because heavy workloads lead to shortcuts in the decision-making process (168).

Methods

Study design

A study with an experimental design, accompanied by an online survey, was carried out in Belgium. The online experiment, facilitated through Qualtrics®, featured a selection between two distinct staged video vignettes, allocated at random to participating GP respondents. The videos both showed a staged consultation with a GP and either a Belgian male patient or a male patient with a Moroccan migration background (Figure 12), both with symptoms of major depression (according to DSM-V criteria). The actor’s Moroccan migration background was not explicitly specified; instead, we relied on visual cues to infer this information. Despite being fluent in the languages spoken in Belgium (French or Dutch), the actor exhibited a subtle foreign accent, indicative of a diverse migration background. The actor’s appearance alone led GPs to infer that he likely had an ethnic background, potentially originating from Morocco. We chose to only have male actors in the videos because it has been shown that the sex of the patient may play a role in GPs’ decision-making, especially with male patients (487, 488) and, secondly, because it would have doubled the total number of videos in the experiment and, given that GPs are a hard-to-reach population sample, we did not consider that to be feasible.

The two videos and their written introductions were comparable in every way and can be accessed in Appendix 5. The script of the video was approved by an academic expert in experimental psychology and an advisory committee composed of two psychiatrists, two GPs, a psychiatric nurse, a psychologist, and an expert in culturally sensitive care. The video simulated a conversation between a GP and a patient who had come for a second consultation due to a persistent headache for which no physical cause had been identified. Full details of the design of the video vignette are provided elsewhere (474). This study was carried out within the framework of the “REMEDI” research project, which aimed to test empirically whether GPs unintentionally discriminate against patients with a migration background and with mental health problems. More details of the project methodology are provided elsewhere (489).

Figure 12 Patients played by actors in the video vignettes in the survey



GP respondents were invited to take part in an online survey on medical decisions involving mental health problems in primary care, but they were not aware that the principal purpose of the study was to assess the effect of the patients’ migration background on the diagnosis and treatment of depression and referral to mental healthcare services.

The online survey collected participants’ demographic characteristics and several individual and organisational factors.

Individual and interpersonal factors

At the individual level, we collected the GPs’ age, sex (man or woman), and concordance of ethnic and migration backgrounds. The combination of the GP’s birth country and that of their parents into a single variable enabled the classification of GPs into two distinct groups: those without a migration background (comprising GPs born in Belgium to parents of Belgian origin) and those with a migration background (including GPs born abroad themselves and/or having at least one parent born outside Belgium). The composite variable will be referred to

as the “GP’s ethnicity”. We also collected GPs’ explicit bias, which was assessed by measuring an explicit attitude of willingness to adapt care to diversity using the Hudelson scale (GPs were given a score ranging from 5, indicating that they placed the responsibility to adapt care on themselves, to 35, meaning that they placed the responsibility on the patient with a migration background) (379).

At the interpersonal level, we also wanted to test Allport’s theory that the more contacts we have with outgroup members, the more they will trust them and the less prejudiced they will be towards them (302). We asked the GPs how frequently they had contact with migration-background patients with mental health problems. This was assessed using a scale ranging from 1 (never) to 5 (every day).

Regarding the interpersonal factors, we computed an indicator of interpersonal trust by asking GPs to what extent they believed that the patient in the video exaggerated his pain/distress (490), made unreasonable demands (357), and manipulated the visit to the GP for other purposes (490), using a 5-point Likert scale ranging from 1 (very unlikely) to 5 (very likely). We then calculated the average of those three scores.

Organisational factors

We hypothesize that overwhelmed GPs in solo practices would have less time and thus take more cognitive shortcuts, i.e. simplify decision-making in complex situations, and that their medical decisions would be more affected by the patient’s migration background (168, 257). We collected the type of practice (solo or group) in which the GPs spent more than 50% of their working time. We asked them whether their actual working hours matched their preferred working hours to assess their perceived workload, based on a validated scale (491). The score for perceived workload ranged from -1 to +1 with -1 meaning that they had a light or normal workload and +1 meaning that they considered their workload to be high.

Outcome measures

After the GPs watched one of the randomly allocated videos, we asked them several questions regarding the patient’s diagnosis, the treatment they would have prescribed, and referral recommendations. These questions can be accessed in Appendix 6. Regarding the diagnosis, GPs had to choose up to three diagnoses from among the following: schizophrenia, bipolar disorder, depression, anxiety, post-traumatic stress disorder (PTSD), obsessive-compulsive disorder, symptomatic and related disorders, and sleep disorders. In this study, we have only presented the results for diagnosis of depression, anxiety, and PTSD, because the literature

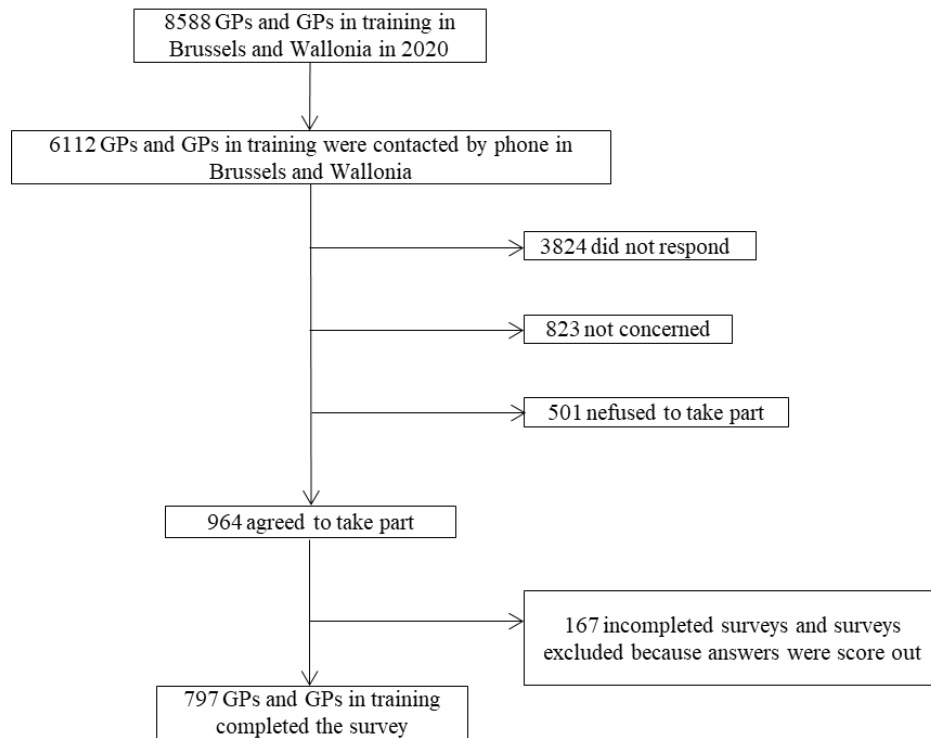
demonstrates that the prevalence of these three disorders is higher among patients with a migration background. We also asked GPs to assess the severity of the actor in the video's symptoms on a scale from zero (very minor) to 10 (very severe). Treatment and referral variables were assessed on a 4-point Likert scale ranging from 1 to 4, with 1= not at all likely; 2= unlikely; 3= likely, and, 4= very likely. We asked them how likely they would be to prescribe a medical treatment, a non-medical treatment, and a combination of both for the patient in the video. We asked them how likely they would be to refer him to mental health care services.

Study population

GP participants were recruited by telephone in French-speaking Belgium between April 2021 and July 2021 (n=6112); we reached 2288 GPs, out of which we obtained informed consent to participate from 964. We only kept complete questionnaires with no scored-out answers, leaving us with 797 GP participants. Those who filled out the online survey to the end had a chance to win a €500 gift card. The survey's response rate was 13% (see Figure 13, which presents a flow chart of the GP participants in the survey).

The participating GPs were mainly women (63.5% of those who watched the video-vignette with the patient without a migration background and 64.5% of those who watched the video-vignette with the patient from a migration background), more than 70% were without a migration background, and roughly 45% were trainee GPs from Belgium's Dutch- and French-speaking communities. The average age of respondents was about 38 years (± 15). About half of the participants estimated their workload to be high and about 70% of participants worked in a group practice.

Figure 13 Flow chart showing participation in the sample process



Statistical analyses

Descriptive statistics were conducted to examine the distribution of our sample. Then, several chi-square tests were computed to ascertain that the 50-50 allocation of vignettes remained unaffected by GP characteristics. Additionally, these tests aimed to verify that the allocation process of video vignettes, facilitated by Qualtrics®, adhered to a random distribution of the GP respondents regardless of their characteristics. We then assessed the effect of the patients' migration background on the GPs' decisions using logistic regression for categorical variables, such as diagnosis, and an analysis of variance (ANOVA) for the continuous variables, such as the symptom severity and the likelihood to prescribe a treatment. Then, for medical decisions on which the patient's migration background was found to have a significant effect ($p\text{-Value} < 0.05$), a moderated multiple regression was run to test two-way interactions statistically by regressing a dependent variable Y (medical decisions) on the independent variable X (migration background), the moderator variable Z (individual / interpersonal / organisational factors) and the product (interaction) term of X and Z (XZ ; "migration background" x "factors"). To do so, we

tested the interaction effect, between migration background/ethnicity and each factor, on each medical decision. The results of the logistic regression provided estimates for PTSD diagnosis, while ANOVA analyses yielded estimates for both symptom severity and the likelihood of prescribing medical and non-medical treatments. We also conducted a sensitivity analysis for the “frequency of contact with patients with a migration background” variable.

Finally, we calculated the effect size of the actor’s ethnic background on medical decisions, using Cohen’s d. A Cohen’s d of 0.2 is considered as a small effect, 0.5 is a medium effect, and 0.8 is a large one. SAS 9.4 was used to perform all the statistical analyses.

Ethics consideration and consent statement

On 24 February 2020, the study and its methodology were approved by the Hospital University Ethics Committee of the Université catholique de Louvain (2020/06FEV/070) and by the Ethical Committee of the Faculty of Political and Social Sciences of Ghent University (2020-07: REMEDI (GPs’ “REcommendations to patients with MEntal health problems and DIverse migration backgrounds”). Written informed consent was obtained from all participants.

Results

Table 10 presents the GPs’ characteristics according to the ethnicity of the patient in the video (means, standard deviation, and the statistical test on the allocation of the video). The allocation of the video to GPs was not biased towards any GP characteristics, except for the frequency of contact with patients with a migration background ($F=9.36$, $p<0.05$).

Interestingly, GPs who watched the vignette with the patient with a migration background reported more frequent contact with patients with a migration background. We believe that this was due to the salience of the ethnicity of the actor in the vignette, which worked as a trigger and brought his migration background to the fore.

Table 10 Sociodemographic description of the GP respondents according to the patient ethnicity in the video vignette and statistical test on the random allocation of the video vignette according to the patient ethnicity, Belgium, n=797

Respondents' characteristic	Vignette of the patient without a migration background Mean (SD ^a) or %	Vignette of the patient with a migration background Mean (SD) or %	Statistical test F-test or χ^2 (p-value)
GPs, n (%)	400.0 (50.2)	397.0 (49.8)	
Age (range = 24 - 79), years	38.5 (14.9)	38.0 (14.7)	0.21 (0.665)
Sex			0.08 (0.77)
Men	36.5	35.5	
Women	63.5	64.5	
Language			0.02 (0.88)
French-speaker	70.0	69.5	
Dutch-speaker	30.0	30.5	
GP's ethnicity			0.10 (0.75)
Without a MB (i.e. Belgian)	73.0	74.8	
With a MB (i.e. first or second-generation)	10.8	11.8	
Licence status			2.04 (0.15)
Licensed GPs	52.8	57.4	
GPs in training	47.2	42.6	
Experience (years)	12.3 (14.2)	11.9 (13.8)	0.15 (0.70)
Working schedule			2.07 (0.56)
Full time	88.3	84.9	
Half of normal working hours	3.7	5.3	
< Half of normal working hours	0.8	1.0	
Other	7.2	8.8	
Perceived workload			0.78 (0.38)
Light or normal	48.5	51.6	
High	51.5	48.4	
Type of practice (>50% of their working schedule)			2.23 (0.13)
Solo	32.5	27.6	
Group	67.5	72.4	

Respondents' characteristic	Vignette of the patient without a migration background Mean (SD ^a) or %	Vignette of the patient with a migration background Mean (SD) or %	Statistical test F-test or χ^2 (p-value)
Type of area			0.95 (0.62)
Unknown	.	0.7	
Urban	11.2	12.3	
Sub-urban	26.0	28.0	
Rural	62.8	59.0	
Frequency of contact with patients with migration background (1: never to 5: everyday)	3.4 (1.4)	3.7 (1.3)	9.36 (0.002)
Hudelson score (5, 35)	21.3 (5.1)	20.9 (5.0)	1.02 (0.31)
Cultural competence training			0.10 (0.74)
No	79.8	80.7	
Yes	20.2	19.3	
The patient exaggerates his distress (1: not likely at all to 5: very likely)	2.3 (0.6)	2.2 (0.6)	0.97 (0.32)

^aSD: Standard deviation.

Table 11 presents the results of medical decisions according to the ethnicity of the patient in the video vignette. Overall, we found that several medical decisions differed depending on the ethnicity of the patient in the vignette. We found no difference in depression diagnosis between the two vignettes ($\chi^2=1.05$, $p=0.31$). We did, however, find that the prevalence of PTSD diagnosis was significantly higher for patients with a migration background (16% vs. 11% for patients without a MB, $\chi^2=4.46$, $p<0.05$), alongside the diagnosis of depression, even though the two videos were similar in every way. The effect size of the patient's ethnicity on the diagnosis of PTSD was measured at 23.9%, indicating a small effect.

The symptoms severity assessment was quite high in both video vignettes. However, GPs systematically estimated the symptoms of patients with a migration background to be less severe than those without a migration background with a score of 7.79/10 and 7.53/10, respectively ($F=7.68$, $p<0.01$), corresponding to an effect size of 23%.

GP respondents were overall in favour of prescribing a treatment to both patients in the vignette. However, GPs were more likely to prescribe medical treatment and to prescribe a combination of medical and non-medical treatment to the patient

without a migration background ($F=4.09$, $p<0.05$ and $F=11.55$, $p<0.01$, respectively). The effect size attributed to the actor's ethnicity stood at 26%, suggesting again a small effect of the patient's ethnicity on these medical decisions.

Table 11 GPs' diagnostic decisions, treatment, referral recommendations, and time spent on the vignette

	Vignette of the patient without a migration background	Vignette of the patient with a migration background	Statistical test
	Mean (SD ^a) or %	Mean (SD) or %	F-test or χ^2 (p-value)
Diagnosis			
Depression, %	98.5	97.5	1.05 (0.31)
Anxiety, %	42.3	36.5	2.74 (0.10)
Post-traumatic Stress Disorder (PTSD), %	11.0	16.1	4.46 (0.04)
Severity of symptoms, /10	7.79 (1.03)	7.53 (1.18)	7.68 (0.006)
Treatment (/4)			
Medical	2.95 (0.66)	2.85 (0.75)	4.09 (0.04)
Non-medical	3.65 (0.61)	3.71 (0.58)	2.29 (0.13)
A combination of both	3.60 (0.60)	3.44 (0.65)	11.55 (<0.001)
Referral (/4)			
Likelihood of referral	3.26 (0.69)	3.31 (0.68)	0.95 (0.33)

^aSD: Standard deviation

Table 12 indicates the results of the multivariate logistic/linear regression analyses with the effect of individual, interpersonal, and organisational factors on medical decisions and the effect of those factors on ethnic differences in medical decisions. We present three medical decisions in Table 12: the diagnosis of PTSD, the assessment of symptom severity, and the combination of medical and non-medical treatments.

Regarding the main effect of the individual factors, we found that being older decreased the likelihood to diagnose PTSD as a comorbidity of depression, but increased the likelihood to prescribe a combination of medical and non-medical treatment. Being a woman GP and having followed cultural competence training decreased the likelihood of being diagnosed with PTSD. At the organisational level, we found that the heavy perceived workload of GPs decreased the prevalence of PTSD, while a high workload increased the symptoms severity assessment and of prescribing a combination of treatments. The results also showed that working in a

group practice increased the prevalence of PTSD while working in solo practice increased the likelihood to prescribe a combination of treatments.

At the interpersonal level, GPs who were distrustful of the patient were less likely to give a diagnosis of PTSD for the patient with a migration background and found the patient's symptoms to be less severe.

Regarding the interaction effects of these factors and ethnic background on medical decisions, we found that older and busy GPs and GPs with lower trust towards patients were more likely to give a diagnosis of PTSD for the patient with a migration background than for the patient without a migration background. Older GPs and ethnically discordant GPs were keener to prescribe a combination of medical and non-medical treatments to patient with a migration background. No significant moderation effect was found on the assessment of symptom severity according to the ethnicity of the patient.

The models were not controlled for the "frequency of contact with migrant patients" variable because we attributed the significant association with the vignette to a methodology bias and the salience of the actor ethnicity. When, however, models were controlled for this variable (results not presented) in a sensitivity analysis (alternative model specification), we observed that the main effect of the "type of practice" variable became non-significant in the diagnosis of PTSD. We also observed that the main effect of heavy perceived workload had become non-significant in treatment prescription.

Table 12 The effect of GPs' individual, interpersonal, and organisational factors on ethnic differences in mental health diagnosis, treatment, and referral recommendations, estimated coefficient from an ANOVA

Covariates	Diagnosis of PTSD (%Yes) ^a		Severity of symptoms (/10)		A combination of both treatments (/4) ^b	
	B ^c	CI _{95%}	B	CI _{95%}	B	CI _{95%}
Main effect						
Age (10 years) ^d	-0.05**	(-0.09, -0.02)	0.09	(-0.03, 0.21)	0.04***	(-0.00, 0.08)
Women (ref=Men)	0.74*	(0.01, 1.48)	-0.13	(-0.39, 0.14)	0.02	(-0.12, 0.15)
GP's ethnicity (ref=Without a MB)	-0.63	(-1.60, 0.35)	0.21	(-0.19, 0.62)	-0.04	(-0.24, 0.17)
Perceived heavy workload (ref=Light)	-0.81*	(-1.46, -0.14)	0.12*	(-0.45, 0.39)	0.12**	(-0.01, 0.24)

Covariates	Diagnosis of PTSD (%Yes) ^a		Severity of symptoms (/10)		A combination of both treatments (/4) ^b	
	B ^c	CI _{95%}	B	CI _{95%}	B	CI _{95%}
Group practice (ref=Solo)	0.99*	(0.16, 1.84)	-0.08	(-0.34, 0.19)	-0.13*	(-0.26, 0.01)
Frequency of contact with patients with a MB ^e	0.24	(-0.12, 0.60)	0.02	(-0.12, 0.16)	-0.07***	(-0.14, -0.00)
Hudelson score (5-35)	0.01	(-0.05, 0.07)	0.01	(-0.02, 0.03)	-0.00	(-0.02, 0.01)
Cultural competence training (ref=No)	0.95**	(0.27, 1.62)	-0.43	(-0.86, -0.00)	-0.38***	(-0.55, -0.20)
The patient exaggerates his distress ^f	-0.83**	(-1.43, -0.24)	-0.19**	(-0.40, 0.03)	0.10	(-0.02, 0.22)
Interaction between patient with a MB (ref=without a MB) and:						
Age (10 years) ^d	0.04*	(0.00, 0.08)	0.09	(-0.03, 0.21)	0.06*	(-0.00, 0.12)
Women (ref=Men)	-0.43	(-1.37, 0.51)	0.11	(-0.27, 0.49)	0.02	(-0.17, 0.21)
GP's ethnicity (ref=Without a MB)	-0.53	(-2.28, 1.23)	-0.26	(-0.08, 0.28)	0.38*	(0.08, 0.66)
Perceived heavy workload (ref=Light)	0.88*	(0.04, 1.73)	0.22	(-0.16, 0.59)	0.04	(-0.14, 0.22)
Group practice (ref=Solo)	-0.28	(-1.39, 0.82)	0.046	(-0.34, 0.43)	-0.01	(-0.21, 0.19)
Frequency of contact with patients with a MB ^e	0.06	(-0.43, 0.56)	-0.09	(-0.29, 0.11)	-0.05	(-0.15, 0.08)
Hudelson score	-0.03	(-0.11, 0.05)	-0.03	(-0.06, 0.001)	0.01	(-0.01, 0.03)
Cultural competence training (ref=No)	0.07	(-0.83, 0.97)	0.38	(-0.27, 1.04)	-0.00	(-0.26, 0.25)
The patient exaggerates his distress ^f	4.15**	(0.40, 1.90)	-0.11	(-0.42, 0.20)	-0.09	(-0.27, 0.09)

^a: These estimated coefficients come from a logistic regression, while the other come from an ANOVA. ^b: 4-point Likert scale from 1: not at all likely to 4: very likely. ^c: bold coefficients have a significant p Value; * means p Value < 0.05; ** means p Value < 0.01; *** means p Value < 0.001. ^d: Odds ratio associated with a 10-year increase in age. ^e: 1=less than monthly to 3=at least every week. ^f: 1=not likely at all to 5=extremely likely.

Discussion

Key findings

This research aimed to identify individual, interpersonal, and organisational factors that moderate ethnic differences in GPs' diagnosis, treatment, and referral regarding of patients with mental health problems. We hypothesised that less trusting GPs with a heavier workload who more frequently placed the responsibility to adapt care to diversity on the patient with a migration background would make more unfavourable medical decisions affecting patients with a migration background. We also hypothesised that ethnically concordant GPs would make more favourable medical decisions affecting patients with a migration background.

This experimental study found evidence of ethnic differences in mental health care. The results showed that the patient with a migration background was more often diagnosed with PTSD, that GPs found that patient's mental illness to be less severe and that GPs prescribed a combination of psychotherapy and medication less often for the patient with a migration background. Overall, we found a few variables that were associated with differences in medical decisions affecting a patient from a different ethnic background.

Older GPs were keener to diagnose the patient with a migration background with PTSD (as a comorbidity of depression) and were also more likely to prescribe a combination of medical and non-medical treatment to that patient. GPs who had a migration background were more likely to prescribe medical and non-medical treatment for patient with a migration background. Another interesting finding was that a high perceived workload and lower trust in the patient significantly increased the likelihood of GPs diagnosing the migration-background patient with PTSD. The results of this study did not, however, reveal any moderating factors associated with the symptom severity assessment for the patient with a migration background.

Despite the small effects size, the main findings corroborate those of previous studies, showing that there is a clear effect between ethnicity and medical decisions in mental health (80, 123, 489, 492, 493). Most of these studies have evidenced provider bias in mental health care but few of them have explained why and how that bias arises. Our study attempted to explain that bias and found that the provider's perceived workload and trust in the patient had a strong effect, especially on PTSD diagnosis for the patient with a migration background.

Individual, interpersonal, and organisational factors

This paper investigated three groups of factors: who the GP is, their dyadic relationship with the patient, and how they are organized. Among the individual factors, we found that age and ethnic concordance had a significant effect on ethnic differences in medical decisions. As shown elsewhere, GPs' age and their experience have an impact on their beliefs and therefore on their decisions (493).

In our study, older GPs were slightly more likely to be influenced by their cognitive shortcuts and to associate the patient's migration background with a diagnosis of PTSD as a comorbidity of depression. Younger GPs may be more sensitive to diversity and aware of their cognitive shortcuts; they are less likely to associate PTSD with a migration background (263). It is also possible that older GPs encounter more patients with a migration background with PTSD in their consultations. They might, therefore, automatically associate such patients with a higher prevalence of PTSD, as has been shown in a previous systematic review and meta-analysis (55). This mirrors other research that examined the impact of the provider's unconscious ethnic biases on the formulation of a differential diagnosis (494). Taken together, these findings resonate with the broader concept of discrimination in mental healthcare. The automatic linkage between migration background and specific diagnoses, such as PTSD in this study, aligns with the larger body of research that highlights how preconceived notions, whether conscious or unconscious, can significantly shape medical interactions and outcomes (168, 180, 291). The potential influence of these biases underscores the imperative for continued efforts to address disparities in healthcare and tackle discriminatory practices perpetuating unequal treatment (151, 174).

Regarding the interpersonal factors, the level of trust expressed by GP respondents towards the patient did not exhibit variations based on the patient's ethnicity. However, this trust factor did play a role in elucidating the ethnic disparities in medical decision-making. This result was in line with those of Moskowitz et al. (357), who underscored the significance of interpersonal trust between primary care providers and patients in clinical consultations and subsequent medical decisions (357).

The evident ethnic variation in diagnoses might be related to the disease prestige hierarchy that GPs associate with mental illnesses. This phenomenon, discussed by Album and colleagues (495), underscores how the perceived prestige of various diseases can shape healthcare providers' attitudes. Depressive disorders, in particular, tend to occupy a lower position on the scale of disease prestige. This ranking places depressive disorders among the four-lowest-rated conditions, alongside fibromyalgia, anxiety disorders, and hepatocirrhosis (495). Furthermore,

people with mental health problems often encounter stigmatisation from healthcare professionals, leading to double jeopardy for those with a migration background, as noted by previous studies (438, 479, 480).

In light of these cumulative insights, it becomes apparent that concerted efforts and interventions are required to cultivate trust between GPs and patients with a migration background having a mental health disorder. We believe that delving into the qualitative aspect could yield a deeper understanding of GPs' discourse and relationship with patients, particularly those dealing with depression and who are from diverse migration backgrounds. Factors such as culture, language, and non-verbal cues and attitudes, not captured within the scope of our experimental survey, may significantly influence the GP-patient relationship (496).

At the organisational level, GPs with a heavier workload were less likely to diagnose the patient with a migration background with PTSD than the other patients. It can therefore be assumed that a heavier workload is partly responsible for the unintentional bias. Implicit bias may cause subtle changes in healthcare providers' behaviour, such as less frequent eye contact, shortened consultation times, or a lower likelihood of referral (283). Furthermore, it has been shown that some conscious strategies designed to reduce implicit bias activation are less effective in situations of high cognitive load (283). This is consistent with a systematic review which concluded that a balanced workload for GPs is an important prerequisite for establishing a beneficial relationship with patients, and thus making less discriminatory decisions (403). Finally, we believe that ethnically discriminatory practice is a dysfunctional way of coping with stress and that organisational measures should be taken to reduce GP workloads.

Strengths and limitations

The strength of this study is that it analyses differences in medical decisions using an experimental design that suppresses the confounding factors involving differences in patients' health status. That experimental design standardises symptom presentation differing socioeconomic status, and insurance, to focus on GP decision-making (376). We were able to control for differences in GPs' perceptions of PTSD diagnosis, in their assessment of symptom severity, and the prescribed treatment, according to the ethnicity of the patient.

One limitation of this study is the sample composition as it was mainly composed of young women working in group practices in rural areas. As a result, the magnitude of ethnic differences may have been underestimated as older male GPs are more prone to discriminatory practices. Further data collection might be required to include more "average 53-year-old GP" respondents working in a solo

practice, who make up the majority of general practitioners in Belgium (497). This selection bias, previously identified in a meta-analysis, underscores the tendency of trainees (e.g. younger GPs) to exhibit higher response rates compared to their non-trainee counterparts (e.g. older GPs), probably due to the greater accessibility of the internet for engaging online surveys (498). Consequently, our study has exhibited an inclination towards younger GPs, potentially leading to an underrepresentation of the broader demographic of older GPs constituting Belgium's medical landscape.

Our modest response rates (13%) align with the results of a prior study on physicians which ranged from 10 to 13% (499). The higher proportion of female respondents within our sample may have contributed to an underestimation of the observed ethnic disparities. A study has shown that male trainee GPs tend to exhibit more explicit ethnic biases towards individuals with a migration background compared to their female counterparts (473). Throughout the phase of data collection, certain GPs declined participation in the survey, citing reasons such as perceived irrelevance of the mental health topic or time constraints. This mirrors findings documented elsewhere (499) and offers valuable insights into its non-response to the survey. Theory suggests that older male GPs might harbour latent ethnic biases to a greater extent than their younger female counterparts towards patients with a migration background. However, our study does not allow conclusive determination in this regard. GPs who agreed to participate in our study potentially held predispositions towards these issues and might have displayed a heightened inclination towards mental health care compared to those who did not respond. This consideration underscores the necessity for replication of our study.

Another limitation is that we used staged video vignettes and an online survey to assess the GPs' management of migrant patients. The experimental design removed, or at least neutralised, the patient's context: his/her life story, frequency of eye contact with the GP, physical proximity, etc., as well as the GP-patient relationship, which constitutes a key element of mental health care in GPs' everyday practice (259). Previous studies have demonstrated, however, that the use of video vignettes rather than written vignettes may increase the accuracy of the probability estimates made by GPs (500).

Conclusion

This study expands our knowledge of the individual, interpersonal, and organisational factors that moderate ethnic differences in GPs' medical decisions relating to mental health disorders. This experiment identified explanatory factors of ethnic inequalities in mental health care: the GP's workload and their level of trust in patients with a migration background. While previous studies have focused on patients' trust in GPs, this research can serve as a foundation for future interventions and studies aimed at improving GPs' trust in their patients with a migration background. Further research is also needed to identify which factors influence ethnic differences in GPs' assessment of symptom severity and treatment prescription.

Finally, we believe that this work contributes to a more complete understanding of the effect of GPs' trust in their patients and of heavy workloads on medical decisions, especially regarding PTSD diagnosis. Future research should investigate the role of GPs' trust and workload in more depth in order to develop an intervention to improve the quality of care for patients with a migration background and reduce ethnic disparities in mental health care.

Declarations

Acknowledgements

The authors thank all the GPs and trainee GPs who participated in the online survey and Laura Jones for her linguistic help.

Funding details

This work was supported by BELSPO under Grant B2/191/P3/REMEDI).

Disclosure statement

The authors report there are no competing interests to declare.

Data availability statement

The data that support the findings of this study are available on request from the corresponding author, CD. The data are not publicly available due to their information that could compromise the privacy of research participants.



CHAPTER 7

UNINTENTIONAL DISCRIMINATION IN MENTAL HEALTH MANAGEMENT: AN EXPERIMENTAL STUDY

Chapter 7 – Unintentional discrimination against patients with a migration background by General Practitioners in Mental health management: an experimental study

This article was published in *Administration and Policy in Mental Health and Mental Health Services Research*¹⁷ in January 2023 and can be accessed through the following link: <https://rdcu.be/dq25d>.

Administration and Policy in Mental Health and Mental Health Services Research
<https://doi.org/10.1007/s10488-023-01250-5>

ORIGINAL, ARTICLE



Unintentional Discrimination Against Patients with a Migration Background by General Practitioners in Mental Health Management: An Experimental Study

Camille Duveau¹ · Camille Wets² · Katrijn Delaruelle² · Stéphanie Demoulin³ · Marie Dauvrin^{1,4} · Brice Lepière¹ · Melissa Ceuterick² · Stéphanie De Maesschalck⁵ · Piet Bracke² · Vincent Lorant¹

Accepted: 4 January 2023
© The Author(s) 2023

¹Institute of Research Health and Society, University Catholic of Louvain, Belgium

²Health and Demographic Research, Department of Sociology, Ghent University, Belgium

³Psychological Sciences Research Institute, UCLouvain, Louvain-la-Neuve, Belgium

⁴Belgian Health Care Knowledge Centre, KCE, Brussels, Belgium

⁵Department of Public Health and Primary Care, Ghent University

Corresponding author: Camille Duveau, Institute of Health and Society, Université catholique de Louvain, Clos Chapelle-aux-champs, B1.31.15, 1200 Brussels, Belgium. E-mail: camille.duveau@uclouvain.be, Mobile +32-493/69.59.39

¹⁷ Duveau, C., Wets, C., Delaruelle, K., Demoulin, S., Dauvrin, M., Lepière, B., Ceuterick, M., De Maesschalck, S., Bracke, P., & Lorant, V. (2023). Unintentional Discrimination Against Patients with a Migration Background by General Practitioners in Mental Health Management: An Experimental Study. *Administration and Policy in Mental Health and Mental Health Services Research*, 50, 450-460. <https://doi.org/10.1007/s10488-023-01250-5>

Abstract

Purpose

Populations with migration background have a higher prevalence of mental health problems compared to their native counterparts. They are also more likely to have unmet medical needs and are less frequently referred to mental health services. One potential explanation is that physicians, such as general practitioners (GPs), may unintentionally discriminate against migrant patients, particularly when they lack of humanization. To date, no experimental study has investigated this hypothesis. This paper assesses the influence of humanization on GPs' discriminatory decisions regarding migrant patients with depression.

Methods

A balanced 2X2 factorial experiment was carried out with Belgian GPs (N = 797) who received video vignettes depicting either a native patient or a migrant patient with depression. Half of the respondents were exposed to an intervention humanizing the patient by providing more details about the patient's life story. Decision related to diagnosis, treatment and referral decisions were collected, as well the time spent on each vignette, and were analysed with ANOVA.

Results Migrant patients' symptoms were judged less severe than those of the native patients ($F = 7.71$, $p < 0.05$). For almost all treatments, the decision was less favourable for the migrant patient. Nevertheless, humanization had little effect on these medical decisions. We observed that GPs spent significantly more time on the vignette with the humanization intervention, especially for the migrant patient.

Conclusions

The results indicate that ethnic difference in the management of depression persist in primary care. Humanization, however does not mitigate those differences in medical decisions.

Keywords

Migrant, mental health, depression, general practitioners, humanization, experimental design

Introduction

In Europe, populations with a migration background are at greater risk of mental health problems than native populations, especially depression, post-traumatic stress disorder (PTSD), and anxiety (97, 106, 501). Access to appropriate treatment and referral to relevant mental health services have been shown to be limited for migrants (154, 439, 502).

Migrant populations experience discrimination more frequently, which constitutes an additional mental health risk factor (96, 97). Although mental health problems are often identified by primary healthcare services, some studies, however, have shown that general practitioners' (GPs') therapeutic decisions regarding patients with a migration background are suboptimal: breakdowns in communication and in the relationship between a migrant patient and a GP can be a frequent source of misunderstanding, the time devoted to a consultation is often shorter for migrants, and GPs' diagnostic, treatment and referral decisions are sometimes biased by their behaviours and beliefs of migrant patients (168, 348, 503).

GPs' beliefs can lead to unintentional discrimination (i.e. unjustifiable differential treatment) against migrant patients with mental health problems. GPs' decisions are sometimes based on situational context, level of prejudice, cognitive busyness, training, time pressure, implicit/explicit ethnic biases, and their experience of intercultural contact (168, 478, 504). Poor humanization in care may strengthen these biases. Humanization of care combines the patient-centred care approach and the person-focused care approach (403). Humanization includes consideration for the patient's life story and a holistic approach (more related to the person-focused care approach), as well as empathy, patience, fair-mindedness, equity, active listening, respect for patient's dignity, uniqueness, and humanity (more related to the patient-centred care approach) (403).

To date, humanization in healthcare has received little attention in clinical practice and research. Recently, however, several authors have concluded that more research is needed on the humanization of care by health providers such as GPs and on its impact on their medical decisions (402, 403). This paper hypothesizes that humanization of care could reduce the risk of unfavourable decisions and reduce unintentional discrimination towards migrant patients with depression. More specifically, by looking at the role of "humanization", this paper examines a potential explanation for the existence of differences in mental healthcare between patients with a migration background and those without.

To the best of our knowledge, no experimental studies have investigated the effect of humanization on inequalities in the diagnosis and treatment of depression between patients with a migration background and those without. We carried out an experimental study using two staged videos showing a simulation of a GP consulting either a depressed native European patient or a depressed migrant patient. By surveying respondent GPs, we intended to investigate whether GPs treat depressed migrant patients differently to their native counterparts. To do so, we assessed two dimensions of humanization. First, by supplementing videos with life-story text for some GPs, we were able to determine, whether GPs' decisions reflected attentiveness to their patients' needs, preferences and life context. Secondly, based on the time respondents devoted to the video and text, we were able to determine, as a proxy of patience, whether, the GPs in the experimental group considered the life story and whether this time differed according to the ethnicity of the patient in the video.

Methods

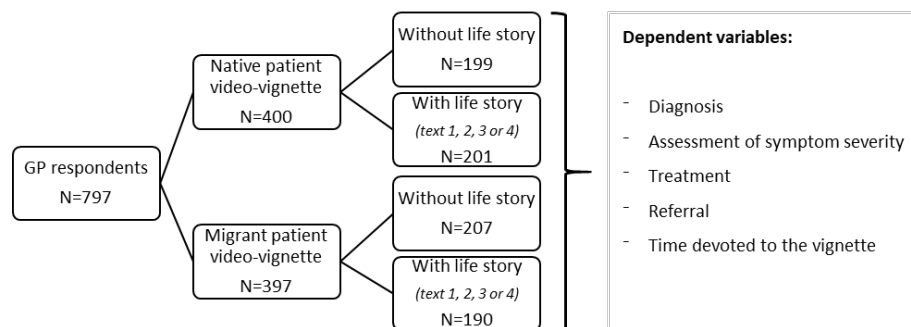
Design

A balanced 2X2 factorial experiment combining migration background and humanization was carried out. Belgian GP respondents were randomly assigned one of the two videos, one of which depicted either a depressed (based on DSM-5 criteria) native patient and one of which depicted a depressed migrant patient. Within those two groups (native patient vs migrant patient), half of the GP respondents received a written text with information about the patient's life story in order to trigger humanization (see Figure 14). Hereafter the term "video-vignette" will be used to refer to the video and the text together. The videos and the written introduction are available in Appendix 5. The migration background of the patient was not mentioned, but the actors were typecast for their "Belgian" and "Moroccan" roots, respectively, to elicit implicit ethnic and racial bias and unconscious beliefs.

We created four different life-story texts to be presented to the GPs randomly selected for humanization intervention (see Appendix 7). Each GP in the humanization-intervention, "life-story", group was presented with one of these four texts. The first life-story text introduced the patient by name and included several details about the patient's family composition, where he lived, and his employment status. The second text provided information about the patient's needs and treatment preferences. The third text included details of the patient's job loss. Finally, the fourth consisted of information about the patient's marital

separation. We used four different life-story information in order to avoid the attribution of a changing in medical decisions to one specific information but we wanted to test the effect of life-story information on the whole on medical decisions.

Figure 14 Balanced 2X2 factorial experimental design and dependent variables



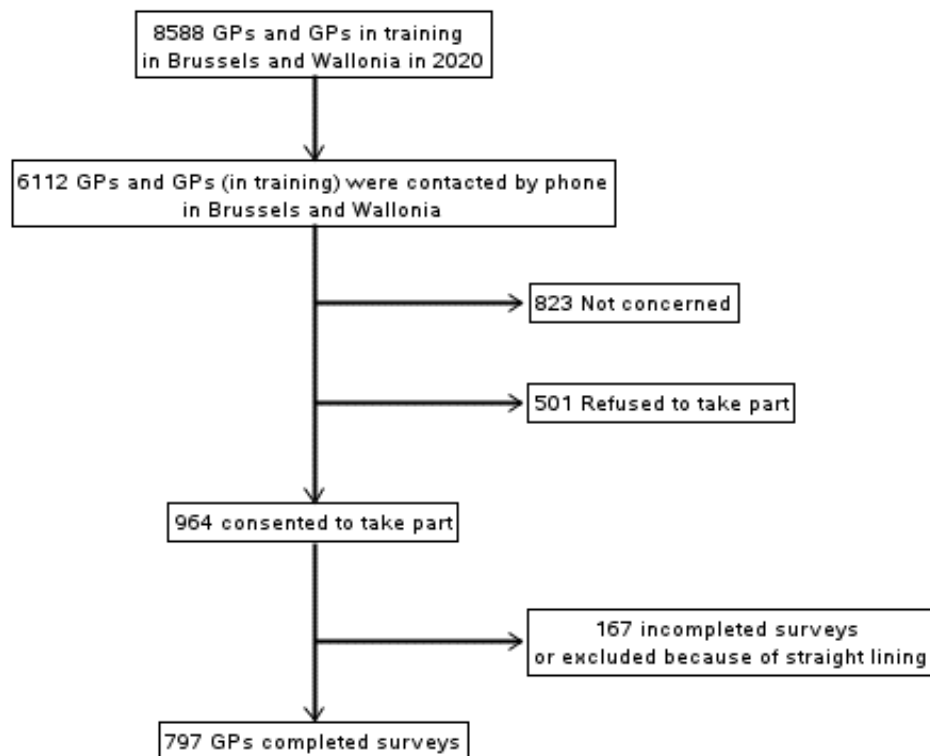
The video-vignettes were similar in every respect, except for the patient’s migration status and the humanization intervention in the written introduction accompanying the video. Within the written introduction, some information about the patient was provided for all vignettes. It was stated that the video simulated a conversation between a GP and a patient who had come for a second consultation due to a persistent headache. Practical details of the methodology are provided in Appendix 8.

Population

We chose to recruit Belgian GPs. Belgium is an interesting case study because firstly, it is a country with a long history of immigration and secondly, there is a higher prevalence of depression among migrants, especially those from Morocco, and this difference is more significant in Belgium than in other European countries (96, 97). The study was carried out with licensed and trainee GPs practising in two of the three Belgian regions: Brussels and Wallonia. Between April and July 2021, we contacted 6,112 of the 8,588 registered GPs in Wallonia and Brussels by phone. Out of these, we were able to reach 2,288 GPs. Among them, 823 GPs were considered as “Not concerned” because they were no longer practising general medicine; we obtained informed consent from 964 GPs, a response rate of 13%. Incomplete questionnaires and questionnaires with scored-out answers were deleted, leaving a final sample of 797 completed questionnaires (Dutch-speaking trainee GPs are included in the final sample). Figure 15 shows a flow chart of the participants in the study.

We also shared the link to the survey in general medicine newsletters and by email with the help of several general medicine associations and other Belgian authorities¹⁸, and with Dutch-speaking trainee GPs from Flanders.

Figure 15 Flow chart showing participation in the sample process



Independent variables

This paper focuses on two dimensions of humanization: the GP's consideration for the patient's life story and the time that the GP devoted to watching and reading

¹⁸ FAMGB (Fédération des Associations des Médecins Généralistes de Bruxelles), Fedasil, SSMG (Société Scientifique de Médecine Générale), FMM (Fédération des Maisons Médicales), ABSyM/BVAs (Association Belge des Syndicats Médicaux/Belgische vereniging van Artsensyndicaten), BHAK (Brusselse Huisartsen Kring), Huis voor Gezondheid Brussel, ICHO (Interuniversitair Samenwerkingsverband HuisartsenOpleiding), HOP (HAIO Overleg Platform), groups for GPs in training on social media, and several medical universities in all three Belgian regions.

the video-vignette, as a proxy of patience. Those two variables constituted our independent variables. We also surveyed GPs' sociodemographic characteristics, practice, work schedule, and workload, among other factors.

Dependent variables

To assess the effect of the humanization and any subsequent difference in GPs' management of depression in migrant patients, we used four main dependent variables as outcomes: diagnosis, assessment of symptom severity, treatment, and referral.

Diagnosis, assessment of symptom severity, treatment, and referral

After watching one of the four randomly assigned video-vignettes, respondents filled out an online questionnaire (hosted in Qualtrics®) about potential diagnoses, assessment of symptom severity, treatments, and referrals for their patient. For the diagnosis, respondents had to choose from a list of seven diagnoses of mental health disorders and could tick up to three different diagnoses. We analysed the diagnosis of depression, anxiety, and PTSD. The GPs then scored, on a scale from zero to ten, the severity of the symptoms staged in the video.

For the treatments, we employed a 4-point Likert scale ranging from very unlikely to very likely. First, we asked them what type of treatment they would prescribe, providing three different options: non-medical treatment, medical treatment, or a combination of both. Then, we asked those who had prescribed medical treatment or a combination of both if they would prescribe benzodiazepines (i.e. hypnotics, sedatives, and anxiolytics), because literature shows that GPs prescribe drugs more often to ethnic minority patients (168). Finally, we surveyed how likely the GP respondents were to refer the patient, also using the 4-point Likert scale.

Time devoted to the vignette

We measured the time GPs spent reading the introduction and watching the video, using metadata recorded by Qualtrics. The aim of this assessment was to see how the time GPs devoted to the patient differed depending on the ethnicity of the patient in the video and on whether the life-story intervention had been provided or not.

Data analyses

Characteristics of the study population

First, we calculated descriptive statistics. We looked at the sociodemographic distribution of our GP respondents according to sex, age, language, license status, experience, work schedule, workload, type of practice, and the type of area where they practise. Then, we ran several chi-square tests and carried out an analysis of variance using those sociodemographic characteristics to make sure that the allocation of the experimental conditions (migration status and life story) was not affected by selection bias. Table 13 in the results section presents a description of our final sample and the results of the chi-square tests and the analysis of variance.

Diagnosis, assessment of symptom severity, treatment, and referral

Secondly, we performed a two-way analysis of variance (ANOVA), which allowed us to gain an understanding of the effects that the two independent variables (migration status and life-story intervention) had on the dependent variables (diagnosis, assessment of symptom severity, treatment, and referral of the patient). We also assessed the interaction effect of the two independent variables on the dependent variables. Then, we computed a multivariate analysis of variance (MANOVA) including all dependent variables at once.

Time devoted to the video-vignette

To assess a proxy of GPs' patience, we analysed whether the time spent on the video-vignettes differed according to the life-story intervention and migration status, using an ANOVA. To do so, we used the difference between the actual average time GPs spent on a video-vignette and the average time expected to be spent on it. This difference was tested with an F-test for each experimental condition. A negative difference meant that GPs spent less time than was, on average, necessary. A positive difference meant the opposite.

All the statistical analyses were performed using SAS 9.4.

Ethical statement

The study and its methodology were approved by the Ethics Committee of the Université Catholique de Louvain (2020/06FEV/070) and by the Ethical Committee of the Faculty of Political and Social Sciences of Ghent University (2020-07: REMEDI (GPs' "REcommendations to patients with MEntal health problems and DIverse migration backgrounds"). At the beginning of the online survey, each GP was

informed about the general objective of the research, including the funding of the research project, and informed consent to participate was requested.

Results

Characteristics of the study population

Table 13 presents the descriptive results of our GP respondents. Women represented 63% of our sample, and the mean age of respondents was 38.2 years (± 14.8). Almost 70% of the GP respondents were French-speakers. More than 86% of the respondents worked full-time and half of the sample perceived their workload to be heavy. Among the respondents 66.5% worked in a group practice, while 29.5% worked mainly in a solo practice. Only 11.8% of our sample worked in an urban area, defined as having more than 75,000 inhabitants; the majority of the GP respondents worked in a rural area (<10,000 inhabitants). According to the chi-square and the F-tests performed on the sociodemographic variables regarding the random allocation of the vignette, we did not find any selection bias in the randomization of our independent variables (migration status and life-story intervention).

Table 13 Sociodemographic distribution of general practitioner respondents, Belgium 2021 (n=797) and statistical tests on the allocation of one of the four video vignettes

Covariates:	% or mean (SD^a)	Test statistic^b (pvalue)
Sex		0.48* (0.92)
Male	37.0	
Female	63.0	
Age (years)	38.2 (14.8)	0.35** (0.56)
Language		0.22* (0.98)
French-speaking	69.8	
Dutch-speaking	30.2	
License status		4.45* (0.22)
Licensed GP	55.1	
GP in training	44.9	
Experience (years)	12.1 (14.0)	0.11** (0.74)

Covariates:	% or mean (SD ^a)	Test statistic ^b (pvalue)
Working schedule		15.19* (0.09)
Full-time	86.6	
Half of normal working hours	4.5	
< Half of normal working hours	0.9	
Other	8.0	
Workload		9.21* (0.16)
Light	9.9	
Normal	40.1	
High	50.0	
Type of practice (>50% of their working schedule)		9.93* (0.13)
Unknown	2.5	
Solo	29.5	
Group	66.5	
Other	1.5	
Type of area		1.43* (0.96)
Unknown	0.2	
Urban	11.8	
Sub-urban	27.0	
Rural	61.0	
Vignette		NA ^c
Native patient without life story	25.0	
Migrant patient without life story	26.0	
Native patient with life story	25.2	
Migrant patient with life story	23.8	

^aSD: Standard Deviation. ^bStatistical test was performed on the GPs' characteristics to check their distribution in the allocation of one of four video vignettes: * indicates the results of a chi-square test and ** indicates the results of an analysis of variance. ^cNA: Not Applicable.

Diagnosis, assessment of symptom severity, treatment, and referral

The results of the two-way ANOVA and the MANOVA for diagnosis, assessment of symptom severity, treatment, and referral are presented in Table 14. No significant differences by migration background or life-story intervention were found for the diagnosis of depression. By contrast, for the native patient, anxiety was more often diagnosed by GPs who had not been exposed to the life story than by those who had been exposed to it (OR = 1.63 IC_{95%} 1.10;2.40, result not presented in the table). GPs diagnosed Post-traumatic Stress Disorder (PTSD) more often in the migrant patient and more so in the non-life story group. The assessment of symptom severity was lower for the migrant patient ($F = 7.71, p < 0.05$), with or without the life story.

For almost all treatments, the decision was less favourable for the migrant patient than the native patient. The prescription of medication was more likely with the native patient than with the migrant patient ($F = 4.46, p < 0.05$). This result is in line with the observation that GPs were more likely to prescribe benzodiazepines to the native patient than to the migrant patient. This result persisted when controlling for the assessed severity of the symptoms ($F = 9.94, p < 0.001$, result not presented in the table). We did not find significant differences in the prescription of non-medical treatments ($F = 2.32, p = 0.13$).

GPs from the life-story group referred the migrant patient less frequently than GPs from the non-life-story group. We found the opposite for the native patient: there were more referrals from the life-story group than from the non-life-story group ($F = 4.78, p = 0.03$).

Multivariate analysis of variance (MANOVA) indicates that migration status had a significant effect on all dependent variables together ($F = 4.26, p < 0.01$) but that the life story did not ($F = 0.45, p = 0.91$).

The interaction effect was not significant ($p = 0.16$). The effect of the life story on the medical decision did not, therefore, differ according to the migration status of the patient.

Table 14 Results of the two-way ANOVA and MANOVA for diagnosis, treatment, and referral

	Without life Story		With life Story		Chi-square or F-value (pvalue) <i>Migration background</i>	Chi-square or F-value (pvalue) <i>Life story</i>	Chi-square or F-value (pvalue) <i>Migration background*Life story</i>
	Native Mean ^a (SE)	Migrant Mean (SE)	Native Mean (SE)	Migrant Mean (SE)			
Diagnosis^b							
Depression (%)	99 (0.01)	98 (0.01)	98 (0.01)	98 (0.01)	1.06 (0.30)	1.24 (0.27)	0.80 (0.37)
Anxiety (%)	48 (0.03)	37 (0.03)	35 (0.03)	33 (0.03)	2.88 (0.09)	5.20 (0.02)	1.59 (0.21)
Post-Traumatic Stress Disorder (%)	9 (0.02)	19 (0.02)	13 (0.02)	14 (0.02)	4.55 (0.03)	0.13 (0.72)	3.97 (0.05)
Assessment of symptom severity (/10)	7.68 (0.10)	7.45 (0.10)	7.81 (0.10)	7.49 (0.10)	7.71 (0.01)	1.16 (0.28)	0.33 (0.57)
Treatment^c							
Medical treatment	2.97 (0.05)	2.85 (0.05)	2.91 (0.05)	2.77 (0.05)	4.46 (0.04)	1.41 (0.23)	0.14 (0.71)
Non-medical treatment	3.67 (0.04)	3.74 (0.04)	3.64 (0.04)	3.71 (0.04)	2.32 (0.13)	0.58 (0.45)	0.01 (0.93)
Combination of both	3.60 (0.04)	3.43 (0.04)	3.57 (0.04)	3.39 (0.05)	12.2 (<0.001)	0.43 (0.51)	0.13 (0.72)
Benzodiazepines (i.e. hypnotics, sedatives, and anxiolytics)	2.06 (0.06)	1.78 (0.06)	1.93 (0.06)	1.77 (0.06)	8.79 (<0.001)	1.37 (0.24)	0.55 (0.46)
Referral							
Likelihood of referral	3.20 (0.05)	3.35 (0.05)	3.32 (0.05)	3.26 (0.05)	0.96 (0.33)	0.12 (0.73)	4.78 (0.03)
MANOVA^d	-	-	-	-	4.26 (<0.001)	0.45 (0.91)	1.46 (0.16)

Results in bold are significant i.e. have a p-value < 0.05. ^a Means, SE (Standard Error), Chi-square, and F-value are adjusted for the GPs' training.

^b Respondents could choose up to three diagnoses from seven (schizophrenia, bipolar disorder, depression, anxiety, PTSD, obsessive-compulsive disorder, symptomatic and related disorders, and sleep disorders). We have only presented the results for diagnosis of depression, anxiety, and PTSD. Symptom severity was assessed on a scale from zero to 10. ^c Treatment and referral variables were assessed on a 4-point Likert scale from 1: not at all likely to 4: very likely. ^d MANOVA means multivariate analysis of variance.

Time devoted to the video-vignette

Table 15 shows the results for the difference between the actual time GPs spent on the video-vignette and the time expected to be spent on the video-vignette. Overall, GPs took less time than expected on the four video-vignettes, as the difference was negative. The difference ranged from -1.76 minutes (± 0.10) for the native patient video-vignette with life story to -0.81 minutes (± 0.08) for the native patient video-vignette without life story. The amount of time GPs devoted to the video-vignette did not differ according to the migration status of the patient ($F = 0.35$, $p = 0.56$).

GPs who had been exposed to the life story spent significantly more time on the video-vignette ($F = 83.43$, $p < 0.0001$), especially for the migrant patient, where the difference was higher than for the native patient video-vignette, -1.56 minutes ± 0.10 and -1.76 minutes ± 0.10 respectively.

Table 15 Difference between the actual time (in minutes) devoted to watch the video and read the introduction by GPs and the expected time required to it

	Without life story		With life story		F (pvalue) <i>Migration background</i>	F (pvalue) <i>Life story</i>	F (pvalue) <i>Migration background*Life story</i>
	Native Mean ^a (SE)	Migrant Mean (SE)	Native Mean (SE)	Migrant Mean (SE)			
Actual timing devoted for each video vignette (minutes)	3.33 (0.08)	3.58 (0.07)	3.53 (0.10)	3.79 (0.10)	/	/	/
Expected timing for each video vignette ^b (minutes)	4.14 (0.00)	4.49 (0.00)	5.30 (0.00)	5.35 (0.00)	/	/	/
Difference between the actual time (in minutes) and the expected time GPs spent on the video vignette	-0.81 (0.08)	-0.91 (0.07)	-1.76 (0.10)	-1.56 (0.10)	0.35 (0.56)	83.43 (<0.0001)	3.06 (0.08)

^a Means, SE (Standard Error) and F-value are adjusted for the GPs' training. ^bTo calculate this average, we added the time of the video to the time needed to read the introduction using a text-to-minutes converter.

Discussion

In our experiment, we found pervasive differences in the diagnosis, assessment of symptom severity, treatment, and referral to mental healthcare services of migrant patients. We therefore conclude that there is a significant association between migration status and medical decisions. These differences are consistent with previous studies that also found that medical decisions were affected by a patient's ethnic background (168, 505). Indeed, providers' biases have already led to the unsafe undertreatment of migrant patients (505). Previous studies have shown that there is a higher prevalence of perceived discrimination among migrant patients, who are also more likely to report communication problems due to their ethnicity (505, 506). Patient-provider relationship is one of the main components of patient-centred care and, therefore, of humanization. Regarding our second main finding, unintentional discrimination was rarely reduced by exposure to the patient's life story, one of the dimensions of humanization. Contrary to our original hypothesis, this result was not consistent with the results of previous studies, which found that more humanized care had a positive influence on several aspects of care such as perceived quality of care, positive health outcomes, and treatment adherence (507).

Diagnosis, assessment of symptom severity, treatment, and referral

Our findings on the higher frequency of PTSD in migrant patient match those observed in earlier epidemiological studies (76, 105, 106). This could be attributed to the fact that migrants are more exposed to external causes of distress and to disadvantage and discrimination in relation to different social opportunities. When primed with their patient's life story, however, GPs were less keen to diagnose PTSD in migrant patients. One possible reason for this is that humanization removes the diagnostic shortcut whereby migration is associated with PTSD. Previous studies have found that the main cause of PTSD is great psychological distance from a traumatic event that has become central to a person's life story (508). Interestingly, we also found in the literature that PTSD risk factors differ considerably between cultures and countries (88). It is therefore essential that future studies consider the different migration backgrounds and life contexts of patients in relation to PTSD diagnosis.

The lower severity of symptoms attributed to the migrant patient is in line with the findings of a recent study, which are also consistent with those of an experimental study in which physicians concluded that North-African patients were less likely to overreport their symptoms than Western-European patients (419, 492). Potential explanations for this result may also be related to GPs' racial prejudice, their

dehumanization of migrant patients, a lack of empathy, or even an assumption that Black patients feel less pain than White patients (509).

GPs were less likely to prescribe drug treatment or a combination of drug and non-drug treatments to the migrant patient than to the native one but, there was no difference in non-drug treatment. An important finding of this study was that the assessment of symptom severity did not explain the lower likelihood of prescribing drug treatment to the migrant patient because when we controlled the result with this assessment, the result remained unchanged. Previous studies, however, have shown that (unintentional) discrimination was positively associated with severity of mental health problems and negatively associated with therapeutic adherence (510). We think, therefore, that there is a need to make GPs aware that their unconscious underassessment of the severity of migrants' symptoms may lead to undertreatment, especially for their migrant patients.

GPs prescribed benzodiazepines significantly less often to migrant patients than to native patients. This finding differs from those of a previous epidemiological study on benzodiazepine prescription, which found that migrants from North Africa were more likely to purchase benzodiazepines than the native Finnish-born population (511). That study also found, however, that migrants were also more likely to interrupt their treatment before the end of the six-month period recommended in guidelines on depression (511, 512). It is possible that GPs presume that the patients will not comply with or purchase their prescription, and therefore decide to prescribe them to migrant patients less often. One explanation for our findings may lie in previous research which shows that GPs consider the prescription of benzodiazepines a form of empathy (513). The reluctance of GPs to prescribe benzodiazepines to migrants could reflect a lack of empathy towards patients with a migration background.

Contrary to our expectations, GPs were less likely to refer the migrant patient for whom they had been provided with a life story. Qualitative studies might provide some insight. Non-referral by GPs could be explained by a variety of barriers encountered by GPs when attempting to refer their migrant patients. GPs may opt to provide the care themselves because they anticipate that their patients will meet barriers when seeking mental healthcare elsewhere (514). In the Belgium context, high waiting time or out-of-pocket payment to access a psychiatrist or a psychologist may explain why GPs are reluctant to refer vulnerable patients. In the group without the life story, however, we found that GPs referred the migrant patient more often than the native patient. A possible explanation for this is that GPs feel less comfortable treating severe depression in migrant patients due

to a lack of awareness, stigma, or cultural barriers, as highlighted in the literature (440).

Time devoted to the video-vignette

Our results show that unintentional discrimination in mental healthcare is only slightly moderated by humanization. GPs who had been given the life story, however, spent significantly more time than the controls reading the introduction and watching the video, especially the one with the migrant patient. There are two possible interpretations of this. One is that GPs paid more attention to the context provided by the migrant patient's life story and humanized him more than the native patient. The other possible interpretation is that GPs who spent more time on the migrant patient's life story may have felt they were under pressure to diagnose, treat, and refer him in the questionnaire. This possibility is supported by previous research which has shown that restrictions on the time allocated to a consultation can lead to dehumanization (403). The negligible effect of humanization on medical decisions may also be explained by the association between dehumanization and GPs' low perceptions of their own stress or burnout (415). In other words, patient dehumanization can also occur when GPs are under stress due to overwork.

Strengths and limitations

This study has several strengths. The first is the innovative and original design of the research. To the best of our knowledge, this is the first experimental study designed to assess the effect of humanization as a moderating factor of GPs' decisions regarding mental health problems among patients with and without a migration background in a European context.

This study has two important limitations. First, the controlled experimental environment did not replicate the real-life everyday environment of a GP practice. When the use of vignette methodologies for studying health professionals' decision-making has been assessed, authors have concluded that they are generalizable to "real-life" behaviour (500). The controlled design might, however, lead to a social desirability bias in GPs' responses, particularly in the highly contested domain of migration and health, and thus underestimate the magnitude of actual unintentional discrimination in primary care. Secondly, GPs who received the life-story intervention could have skipped the information that was provided or may not have considered that information in addition to the video, thus jeopardizing the internal validity of the life-story condition. The metadata, however, did not confirm this. GPs spent longer on the patients when the life-story

condition was applied. This intervention could be explored using a qualitative design to further explore the effect of this intervention on GP's everyday practice and to investigate how GPs can use humanization of care to reduce their own ethnic bias.

Conclusion

In conclusion, we found unintentional ethnic discrimination in assessment of symptom severity, diagnosis, treatment, and referral of mental health problems by general practitioners. As hypothesized in this paper, however, there is no indication that a lack of humanization is the main driver of those discriminatory practices. Nevertheless, we believe that this experiment should be replicated with the humanization intervention staged in different ways. Finally, GPs should be made aware of their under-assessment of their under-assessment of the symptom severity of their patients in order to avoid the under-treatment or mistreatment of depression, especially in their patients with a migration background.



CHAPTER 8

DISCUSSION

Chapter 8 – Discussion

This chapter presents an integrated discussion that summarises and interprets the primary findings of this thesis. It aims to identify specific elements that may contribute and explain to the perpetuation of ethnic inequalities in primary mental health care within the GP consultation while acknowledging the limitations of this thesis. Some perspectives and implications of the thesis for future research close the discussion with implications and recommendations for research, practice, and policy.

8.1. Summary and integrated discussion of the main findings

This thesis focused on exploring and elucidating potential ethnic disparities in both the mental health status and access to mental healthcare among migrant and ethnic minority (MEM) populations residing in Belgium. It also aimed to highlight unintentional discrimination in primary mental health care and identify factors and **interventions** influencing discriminatory practices. To address these objectives, several studies were conducted and are summarised and discussed below.

Ethnic disparities in mental health status

Over the past few decades, numerous studies conducted in Europe and beyond have yielded mixed findings regarding mental illness risk among MEM populations (80, 86, 112, 133, 148, 440, 515, 516). The **initial three chapters** of this thesis presented an overview of these disparities, aiming to **define** MEM populations, **describe** variations in mental health, and identify underlying **factors** contributing to these disparities.

Some studies indicated a higher risk of mental illness among MEM groups (78, 79, 120, 501), while others found no significant differences when controlling for other variables (85, 97, 440). Socioeconomic status (SES) emerged as one of the key factors influencing the distribution of mental health outcomes, with SES affecting psychosocial stress levels and, consequently mental health status (72, 198, 517).

The thesis aimed to bridge a significant gap in our understanding of how these factors evolve over time and influence the mental health risk of MEM groups, particularly in Belgium. **Chapter 4** of this dissertation aimed to compare the mental health risk of specific MEM groups in Belgium and analysed whether changes in SES over time correlated with the observed differences in mental illness risk.

Findings drawn from an analysis of six waves of the Belgian Health Interview Survey (BHIS) revealed that the risk of **mental illness** among Moroccan and Turkish populations did not differ from that of Belgians in each survey wave. However, over time, the risk increased for these populations, in comparison to that of Belgians. Non-European migrant groups had a lower risk of mental illness compared to their Belgian counterparts, and second-generation migrants with mothers born outside the EU experienced an elevated risk in 2018. These findings aligned with previous research demonstrating higher mental illness risk among Moroccan and Turkish populations compared to Belgian populations or individuals from other EU Member states (109).

While SES partially mitigated the association with mental illness risk among Moroccan and Turkish backgrounds, as shown previously in Belgium (96, 109), similar trends were observed in the Netherlands, among Moroccan respondents (373), in the UK among five ethnic minority groups (Black Caribbean, Indian, Pakistani, Bangladeshi, Irish) when compared to a White reference group (self-reported as White British) (276), in Denmark among non-Western immigrants (518), in Germany (519), and the USA, notably among Black African populations (115). In our study, it is crucial to acknowledge that ‘ethnicity’ was assessed heterogeneously, using a variable that combines respondents’ country of birth with their nationality. However, this method may not accurately reflect the self-reported ethnicity of participants in the Belgian Health Interview Survey. For example, an individual born in Morocco but holding Belgian nationality was categorised as of Moroccan origin, and similarly, someone born in Belgium with Moroccan nationality was also classified as Moroccan. It is important to consider this limitation when interpreting the results of this study.

In alignment with our findings, a study that employed the General Health Questionnaire (GHQ) to assess the prevalence of depressive disorders found that mental distress was significantly more prevalent among African Caribbean individuals than among White European individuals (520). A population-based study across Europe supported our findings by demonstrating higher levels of depressive symptoms among both first and second-generation immigrants compared to the native population (97). Although the GHQ-12 is a widely used screening tool for assessing mental health and identifying individuals at risk of mental distress, it has certain limitations. Specifically, the GHQ-12 is a general screening tool and lacks specificity for particular mental health disorders that may lead to false positives (521), some symptoms may be perceived differently or may not align with the cultural understanding of mental health. In addition, its applicability and sensitivity may not be fully adapted to individuals with diverse cultural backgrounds. Some individuals who are not fluent in the language of the

Belgian Health Interview Survey (French, Dutch, German or English), may misinterpret or underreport their symptoms (522). These potential limitations could affect the accuracy of understanding of mental health across different populations with migration and ethnic backgrounds.

An intriguing observation emerged from our data analysis, revealing a substantial peak in psychological distress among Moroccan and Turkish respondents between 2008 and 2013 (refer to Figure 10). This pronounced peak invites various interpretation. One possibility is that it could be linked to the 2008 economic recession in Belgium, potentially exacerbating economic challenges, social exclusion, and unemployment, particularly impacting individuals with mental illnesses, such as migrants and ethnic minorities (453). Another interpretation explores the potential differences in how interviews and questionnaires were conducted across Belgian provinces by researchers which may have influenced the observed peak. To explore this potential influence, additional analyses were conducted, introducing the province of residence as a random effect in the logistic regression model. Surprisingly, the random effect of the province did not yield a significant impact, indicating that variations in mental distress among respondents were not adequately explained by the province of residence. The reasons explaining this substantial increase in the prevalence of mental illness of Moroccan and Turkish groups remain hypothetical, and further investigations would be necessary to understand what could explain a such peak. This paper recognises the limitations in the data quality for addressing this issue, acknowledging that it is, at best, suboptimal.

The implication of these findings underscored the importance of better-quality data collection procedures regarding ethnicity within the National Health Interview Survey. Firstly, the collection of high-quality ethnicity data is imperative to ensure culturally competent approaches in public health and policy interventions (523, 524). Secondly, this data collection is crucial for identifying inequalities and potential patterns of mental illness risk that might otherwise remain concealed and consequently, unaddressed. The significance of this issue became particularly evident during the COVID-19 pandemic, where ethnicity-related data played a crucial role in identifying and addressing, as seen in the UK (525) and the USA (526).

However, many European countries, including Belgium, continue to grapple with challenges related to the capture of ethnicity data, impacting management approaches that often fail to meet the needs of diverse MEM populations (523). A previous study highlighted that healthcare providers may not perceive the relevance of recording this data (527), while another study revealed that individuals might not feel adequately represented by standardised categories offered (528).

Key findings from Chapter 1, 2, 3 and 4

- ⇒ This diversity in the mental health status reminds us to be cautious when studying different ethnic groups because, as highlighted previously, MEM populations cannot be considered as a homogeneous group regarding several aspects, including their risk in mental health.
- ⇒ The variations highlighted in ethnic disparities in mental health risk suggest that they are modifiable and avoidable.
- ⇒ The quality of the data collected on ethnicity within Health Interview Survey are limited.

Ethnic bias

Previous literature has suggested that **implicit biases** held by healthcare providers **could be** a possible cause of ethnic disparities in mental health care, although there was wide variance from provider to provider (262, 295, 459). However, little was known about the implicit and explicit biases of GPs in Belgium, especially those in training, who represent the next generation of Belgian GPs, given that as of 2016, 44.9% of the active GPs were older than 55 (497).

Chapter 5 aimed to fill this gap by assessing to what extent GPs, particularly trainees, had **implicit and explicit ethnic biases** towards patients with a North-African migration background. The design used an IAT (Implicit Association Test) and the GPs' willingness to adapt care to diversity (Hudelson scale), as a dimension of cultural competence and a proxy to assess explicit biases.

This study found that most trainee GPs had a **moderate to strong implicit preference for French-language** first names over the North-African ones. **Being of Arab ethnicity** and having a **left-leaning political orientation** were associated with lower levels of implicit biases. In addition, being a **woman** and having a **left-wing**

political orientation were also associated with a significant tendency to place the responsibility to adapt care to diversity on GPs' shoulders. There was a slight positive correlation between implicit and explicit ethnic biases, suggesting that respondents for whom French-language names had more implicit positive associations were also more likely to consider it the migrants' responsibility to adapt.

These results were in line with previous studies highlighting that GPs may exhibit moderate levels of implicit ethnic bias, similar to those observed in the general population and other health providers (166, 263, 286). Nosek and colleagues (286) reported that greater anti-Arab attitudes were observed among **men** compared to women, **older people** compared to younger people and conservatives compared to **liberals**, thereby supporting our results among trainee GPs. Further, Dauvrin, based on previous literature, summarised individual factors influencing the cultural competence of health professionals (529). Among these factors, she shed light on the fact that women healthcare professionals with democratic political orientations were more culturally competent, as supported in our study among trainee GPs. However, it is important to acknowledge that we did not collect data on the socioeconomic status (SES) of the trainee GPs, nor did we gather information on their social contexts and environments, or their parents' SES and occupations which could potentially influence the magnitude of the trainee GPs (315, 530).

The implication of this finding is that future GPs may provide lower-quality care to MEM populations with mental health disorders (259). Indeed, implicit bias can negatively influence a provider's willingness to engage in **patient-centred care**, as it has been highlighted by our correlation between implicit and explicit bias scores, albeit limited ($r = 0.17$, $p < 0.05$) (263). However, it is also noteworthy to notice that although providers' biases were found to influence their medical decisions towards MEM, several studies investigating those biases, did not find any association between implicit biases and health outcomes, especially in pain assessment and management (531-533).

Furthermore, there are notable critiques regarding the use of the Implicit Association Test (IAT) to assess implicit and infer explicit biases. A meta-analysis indicates that the IAT offers limited predictive insight in discerning effective discrimination compared to explicit bias measures, highlighting the ongoing need to find more reliable, context-specific measures of prejudice capable of accurately predicting discrimination (534). Researchers emphasise the caution against attributing specific meanings to IAT response patterns without systematic empirical research validating potential links between different IAT scores and observable actions indicative of ethnic bias (Blanton & Jaccard, 2006; cited by Oswald et al.,

2013 (534)). Further research could integrate experimental tests for differential response patterns alongside the IAT scores. Critics argue that implicit measures, such as the IAT, often lack contextual information, assessing attitudes, stereotypes, or beliefs towards specific social groups in a context-independent, global manner (535). However, mental representations of attitudes and stereotypes are highly context-dependent, and real-life behaviour occurs within specific situational contexts. Enhancing the predictive validity of IAT may involve aligning the predictor with the criterion by incorporating contextual information (535). Furthermore, advancing our understanding of the relationship between implicit and explicit attitudes, biases, and discriminatory behaviour necessitates disentangling these dynamics (534). This involves documenting the effects of implicit and explicit attitudes on pro-endogroup behaviour, anti-exogroup behaviour, and differentials in endo-/exogroup behaviour— rather than amalgamating them through global behaviour reports at the study level and meta-analytic effects averaged across heterogeneous outcomes (534). Lastly, although the IAT is valuable for individual-focused analysis, the automatic evocation of mental associations sometimes overshadows systemic racism as a root cause of persistent ethnic disparities (530). Consequently, it is essential to consider these critiques and limitations of the IAT when interpreting our results.

However, it has been shown that implicit bias may affect referrals to specialised treatment or adherence to evidence-based guidelines (263). Another important implication in the context of mental health care, is the consequences of GPs' unconscious attitudes in the diagnosis and treatment of mental health conditions, as they rely heavily on their discretion, consequently affecting the seeking-behaviour of individuals for mental health treatment (179). Additionally, as mental health care is often fragmented in comparison to other types of health care that use an interprofessional, team-based approach, GPs can be in the position of the gatekeeper to accessing mental health care.

Key findings from Chapter 5

- ⇒ Belgian trainee GPs exhibit implicit and explicit ethnic biases favouring their in-group (Belgian) over out-group members (Moroccan).
- ⇒ These biases may significantly influence GPs' medical decisions, potentially leading to misdiagnoses of mental health disorders and misinterpreting of symptoms, resulting in inadequate treatments. However, existing literature yields mixed findings on their precise impact.
- ⇒ Nonetheless, evidence suggests a positive link between GPs' implicit ethnic biases and a decrease in trust and empathy within the provide-patient relationship.

Ethnic disparities in medical decisions

To address the knowledge gap surrounding the GPs' ethnic bias on medical decisions in mental health care, the **Chapter 6** and **Chapter 7** delve into three objectives: i) Investigate the effect of patient **ethnicity** on GP effective decisions in the context of depression, something that the Implicit Association Test (IAT) cannot capture; ii) Evaluate the **moderating** influence of GP-specific **factors** (e.g., age and ethnicity), interpersonal factors (e.g., healthcare provider trust), and organisational factors (e.g., perceived workload) on ethnic disparities in GP decisions; and iii) Assess the effectiveness of an **empirical intervention** (e.g. the humanization intervention) designed to mitigate ethnic disparities in GPs' diagnosis, treatment, and referral for patients with a Moroccan background presenting symptoms of severe depression.

In the following paragraphs, we will provide a summary of the findings from the two first objectives and interpret their results by drawing comparisons with relevant international literature.

Subsequently, we will delve into a discussion of the third objective, focusing on the aspect of humanizing the patient, within the upcoming section titled “Strategies to Address Ethnic Disparities”.

Subsequently, we provide a concise synthesis of the main findings related to the two main objectives aforementioned.

Firstly, our experimental investigation (see Chapter 7) into the influence of patient ethnicity on GP decision-making did not uncover any evidence of ethnic disparities in the **diagnosis of depression** as depicted in the video vignette between the migrant and non-migrant patients. However, they consistently assessed the **severity of symptoms** in the migrant patient as **less severe** compared to the native patient. Additionally, GPs were more inclined to **diagnose PTSD** in the migrant patient than in the native patient. We observed that GPs **were less** likely to **prescribe medical treatments** (or a combination of medical and non-medical treatments) to the migrant patient, while no difference was found in the non-medical treatment. Furthermore, even after controlling for the assessment of symptom severity, the relationship between the migrant patient and the lower prescription of medical treatment remained robust.

Secondly, in our exploration of how GPs-related **factors** moderate GP decisions, we found that the **age** of GPs played a significant role in the **diagnosis and treatment** prescription for the migrant patient. Older GPs were more prone to diagnosing the migrant patient with PTSD as a comorbidity of depression and were more likely to prescribe a **combination of medical and non-medical treatments** for them. GPs with a **migration background** (first or second-generation migrant individuals) favoured higher prescription rates of combined treatments (medical and non-medical) in the case of the migrant patient, compared to native-born GPs.

Additionally, we discovered that GPs with a high **perceived workload** and **lower trust** in the migrant patient were more likely to diagnose PTSD. However, our results did not reveal any other factors moderating treatment, referral decisions or assessment of symptom severity.

The **first main finding** that is noteworthy to discuss was the ethnic disparities in **medical decisions** regarding the higher tendency of GPs to diagnose **PTSD** and the lower likelihood to prescribe medical and non-medical treatments to the Moroccan patient, compared to the Belgian one, although the effect sizes were small. This could be attributed to the fact that GPs may hold implicit ethnic bias, automatically associating PTSD and a lower socioeconomic status with migrant patients. These **cognitive shortcuts** might be explained by the implicit and explicit biases of GPs highlighted in the literature (260, 287, 536), but also by those discovered among trainee GPs within the Chapter 5 of this thesis.

The result implies that GP with implicit ethnic biases may tend, on the one hand, to **overdiagnose mental health disorders such as PTSD**, potentially resulting in inappropriate treatment, but on the other hand to underestimate the severity. Consequently, this could contribute to the exacerbation of ethnic disparities in mental healthcare.

Our findings did not align with previous research on the accuracy of therapists' diagnosis decisions during mental health intake in the context of diverse ethnicity. Prior studies suggested that even with standardised diagnostic criteria in DSM-5, mental health service providers are **more likely to underdiagnose affective disorders** and overdiagnose psychotic disorders among patients from marginalised groups, compared to the majority (537). However, significant heterogeneity has been observed in the prevalence of PTSD among individuals with a migration background, particularly among refugees and asylum seekers, in previous studies. This variability, as elucidated in Chapter 2, can be attributed to factors such as the study population, design, diagnostic method, age-group, and language of interviewers, among others (93). In the framework of this dissertation, we employed an experimental design, acknowledged for its potential to overestimate the quality of an examination (538). Moreover, to diagnose a PTSD in our design, GPs simply had to tick a box, a process considered simpler than real-life diagnoses, as suggested by the Diagnostic and Statistical Manual of Mental Disorders (DSM) (539). Nevertheless, misdiagnosis raises the risk that mental health professionals may neglect to refer patients to the relevant healthcare specialists or unintentionally **withhold necessary treatment** (537).

Considering the lower **socioeconomic status** of MEM patients frequently encountered by GPs (178, 208), an alternative hypothesis to interpret this result is that GPs may have anticipated greater difficulties in affording treatment for the migrant patient depicted in the video. This interpretation finds support in the research of Laveist (192), who demonstrated that when socioeconomic status is equalised, **ethnic and racial disparities tend to diminish**. Therefore, it is plausible that the small effect size we observed in ethnic disparities in medical decisions, is due to the socioeconomic parity among our experimental patients.

Our results were further corroborated by another experimental study conducted by Kugelmass (150). In this study, audio recordings of potential psychotherapy clients were utilised, revealing that **working-class Black men** were considerably less likely to be offered an appointment compared to middle-class White women. This finding aligns with and reinforces the ethnic disparities in mental healthcare that we highlighted in our study. Additionally, another study highlighting that African American patients, were less likely to receive a depression diagnosis, were also less likely to use antidepressant treatment than among non-Hispanic White patients. Further, **differences in symptom severity** did not explain the gap in ethnic disparities highlighted in depression treatment (540), as outlined in our results.

The implication of this result is that the Moroccan patient was more likely to receive a diagnosis of PTSD and less likely to be treated with drug treatment compared to

the Belgian patient. This result contrasts with findings in the Netherlands, where migrants of Moroccan, Turkish and Surinamese origin were shown to have an increased incident of anxiolytic purchases compared to the Dutch population (541). However, it is important to consider that the use of benzodiazepines and related drugs has become controversial in recent years, primarily due to their often longer-than-recommended usage. A Finnish study highlighted that migrant populations were less likely to purchase benzodiazepines and had less long-term and concomitant use of these drugs than Finnish-born individuals. This suggests that either migrant patients followed a more optimal pattern of medication use or had a poorer access to treatment for mental health disorders (542). In addition, a recent study addressing the prescribing dilemma of benzodiazepines by GPs and psychiatrists in Belgium revealed different storylines employed by professionals to discursively navigate the use of benzodiazepine receptor agonists (BZRA) (543).

On one hand, the authors emphasised a storyline of '*no prescribing*', rooted in a strong opposition to prescribing any BZRA due to perceived risks. This narrative reflects the empathy for the challenges of discontinuation, positioning professionals as responsible practitioners dedicated to avoiding harm and assisting in withdrawal or protecting patients from perceived BZRA-related harm (543). In alignment with our results, we could interpret that GPs who prescribed fewer benzodiazepines to migrant patients were potentially more empathic towards them compared to non-migrant patients.

On the other hand, the authors highlighted a storyline termed '*compassionate prescribing*' framed as a valuable means of support that enhances patient comfort (543). Healthcare professionals reported considering the patient's psychosocial situation when prescribing, adopting an empathic prescriber role who deviates from guidelines in the patient's best interest. As highlighted by the authors, this approach positions the patient more as an equal partner working collaboratively. In the context of our findings, the lower prescription rate observed for migrant patients could potentially signify ethnic disparities, where empathy and consideration for the migrant patient's well-being might take a backseat compared to non-migrant patients. Ceuterick et al. (543) introduced the concept of "mindlines" in their study, elucidating the implicit norms and values derived from healthcare professionals' experiences and experiential knowledge in practice. These factors shape the acceptable degree of flexibility around textbook practice and clinical guidelines (544). The aforementioned storylines provide insight into the underlying norms and values related to prescribing and how interviewees perceive their role as prescribers. However, our results did not provide enough information regarding the potential "mindlines" held by the respondent GPs, which could have offered insights into understanding how GPs perceive their approach to lower prescriptions for migrant patients.

The lower prescription rate of drug and psychotherapy treatment for Moroccan patients by GPs can be contextualised within the framework of cultural perceptions and attitudes towards mental illness prevalent among these patients. Cultural backgrounds and social norms significantly shape the views and attitudes of Moroccan patients concerning mental health, thereby influencing their responses and adherence to the prescribed treatments. A study conducted in Belgium specifically examined the views of Muslim women, particularly middle-aged and elderly Moroccan women, shedding light on the role religion plays in shaping their perspectives on health, illness and medicine (545). This study highlighted that Moroccan Muslim women often attribute illnesses, especially mental health issues, to cultural-religious factors, the interrelation of body and mind, and frequently consider them taboo, sometimes associating them with metaphysical explanations like sorcery or possession. The reliance on prophetic and religion-based medicine among individuals with a Moroccan background might contribute to the reluctance of respondent GPs to prescribe conventional drug or psychotherapy treatments. However, critical observations within the study revealed a rejection of certain cultural practices, particularly among middle-aged Moroccan Muslims and second-generation middle-aged Moroccan Muslims. This rejection indicated a shift away from homogenous rural, traditional Islamic environments, with the second-generation migrants more integrated into broader Belgian society (545). To make the parallel with our results, we might speculate that GPs would have perceived the Moroccan patient staging in the video as an individual with a Muslim background therefore anticipating a cultural discordance in their treatment prescription decisions, leading to anticipate a denying of help-seeking. Therefore, people with a Moroccan background who may rely upon prophetic and religion-based medicine in case of mental problems, could have made our respondent GPs reluctant to prescribe a drug or other psychotherapy treatment.

Moreover, studies have highlighted the challenges faced by healthcare professionals, including GPs, in navigating different explanatory models during consultations with patients from diverse cultural backgrounds (Gopalkrishnan 2018; Gopalkrishnan and Babacan 2015; Larchanché 2020; Marsella 2011; cited by Apers, 2023 (546)). Understanding and addressing cultural issues extend beyond language comprehension and are crucial for building a trustful therapeutic relationship. Professionals without a migration background may find themselves confronted by the limitations of the Western explanatory model (e.g. biomedical model), leading them to adopt culturally sensitive practices that explore potential cultural references in patients' narratives (Mollah et al., 2018; cited by Apers, 2023 (546)). Guiding ethnic minority patients towards "Western treatments", particularly psychiatric medication, has been associated with potential power imbalances, where practitioners, as perceived experts, establish Western practices as the

standard. This approach diminishes the cultural explanatory models of ethnic minority patients and may be perceived as culturally inappropriate, impacting trust relationships and potentially leading to feelings of discrimination (547).

Alternatively, mind-body therapy interventions have emerged as more acceptable and accessible alternatives to conventional mental health treatments, particularly for disadvantaged individuals, including those from ethnic minority backgrounds (547). These interventions are defined as a group of healing techniques that enhance the mind's interactions with bodily function, to induce relaxation and improve overall health and well-being (547). While the utilisation interventions may be relatively lower among racial/ethnic minorities, evidence suggests that a significant proportion engages in complementary health approaches, such as prayer/healing and natural or herbal remedies. A comprehensive review supports the efficacy of mind-body approaches in addressing various mental and physical health symptoms among ethnic minority populations, including depression, PTSD, and overall quality of life (547). In Belgium, a study highlighted the coexistence of biomedical approaches with other forms of practicing medicine, such as Islamic healing, herbalism, and ritual specialisms, reflecting the diverse healthcare landscape. However, potential cultural gaps between patients and practitioners in this context may lead to errors or treatment-induced problems, emphasising the importance of addressing cultural diversity in mental health care (546, 548).

Our **second main finding** reveals that GPs always assessed the **symptom severity** of the migrant patient as less severe compared to non-migrant patient. This finding aligns with prior research on mental health disorders in primary care, which highlighted the wide variation in the expression of mental health symptoms concerning factors such as culture, severity, risk factors, and complexity. This variability can contribute to the challenges in effective communication with GPs and the establishment of trust in the patient-provider relationship (329, 358, 492, 549). These complexities may have been exacerbated in the case of the Moroccan patient. Notably, research in the US found similar results, where medical students underestimated the severity of pain in Black patients compared to White patients (550).

Interestingly, a study has highlighted that even though migrants may have access to health services, they frequently face substantial hurdles in effectively communicating their symptoms or understanding treatment instructions due to cultural beliefs regarding the causes and management of illnesses, as well as a lack of familiarity with structured healthcare systems. Furthermore, the lack of training in GPs curricula can leave unprepared to recognise the wide spectrum of health issues presented by their migrant patients, including psychological symptoms (163).

Additionally, earlier studies have shown that patients with severe conditions of depression are more likely to be identified (131, 551-553).

However, it is important to acknowledge that ethnic disparities in the assessment of symptom severity are not constantly observed, as seen in contexts like acute care inpatient general medicine service, among others (554-556).

The **third key finding** in this section pertains to GP-related factors, especially the heavy perceived **workload** and **trust** in the patient, which are associated with ethnic differences in medical decisions. One potential explanation for this result is that implicit ethnic biases tend to manifest more frequently under specific circumstances, including **heavier workloads** and **lower levels of trust in the patient**, as demonstrated in our results. Additionally, factors such as fatigue, preoccupation, and the characteristics of the work environment and organisational settings may also play a role in the expression of these biases (289). These ethnic biases held by GPs, leading to potential favouritism towards their in-group members or biases against out-group members. This relationship between implicit biases and medical decisions has been documented in previous research, illustrating their impact on empathy, patient-provider interaction, and trust. These factors collectively may contribute to variation in medical decisions regarding MEM patients, as demonstrated elsewhere (260, 280-283). Further, another study highlighted that the patients' accounts of the quality of the therapeutic alliance did not differ by ethnicity, while socially advantaged therapists reported worse therapeutic alliance with clients belonging to disadvantaged groups (537). However, our results did not exhibit a significant **ethnic** difference in GPs' trust assessment. Nevertheless, in the case of migrant patient, GPs with lower trust were more likely to diagnose PTSD, compared with the non-migrant patient.

The originality of our research is that it highlights the issue of GP's trust in the patients, while more of the studies about trust consider the patient perspective (346, 368, 486, 557). We highlighted that this component of the provider-patient relationship had a significant influence on their medical decision. However, prior research revealed that provider mistrust was associated with care processes (558), higher depression and a greater depression symptom severity (559, 560). In addition, a research highlighted that provider mistrust was also associated with a negative impact on health literacy and health compliance (561). However, a study revealed that non-adherence to treatment posed a significant hurdle in the treatment of depressive disorders, as it increased the symptom severity and exacerbated the mental health condition of the non-adherent patients (562, 563). Another study concluded that confidence in the clinician-patient relationship emerged as one of the primary challenges in healthcare delivery (564). Previous

research discovered higher depression symptoms were associated with lower provider trust among patients with diabetes in an integrated care setting (559). Poor provider trust was associated with greater depression symptom severity (559, 560).

Therefore, the implication of this finding may have deleterious consequences directly on the mental health status of the migrants but also on their mental healthcare in primary care settings.

In light of the perceived heavier perceived workload, GPs may also be susceptible to relying on cognitive shortcuts during interethnic consultations involving mental health disorders. A prior study conducted in Germany, brought attention to the challenges faced by GPs with a high patient load, averaging more than 60 patients per day. They found that managing patients with depression was a significant burden for these GPs. Their research indicated that only 55% of patients received a correct diagnosis of a clinically significant depressive disorder (565).

GPs operate within significant time constraints (159, 180, 348), dealing with a wide range of medical conditions and presenting symptoms. Additionally, they must contend with a high prevalence of diverse manifestations of depressive disorders, including various understandings, severity, and symptoms presentation, comorbidity (549, 566, 567).

The implication of this finding is that the structural environment within which GPs operate can significantly influence the provider-patient relationship, potentially perpetuating ethnic disparities in primary mental healthcare.

The influence of such factors manifests in terms of reduced empathy, diminished patience, less patient-centred care, a compromised quality of the therapeutic alliance, and decreased overall satisfaction.

In response to these challenges, we designed an intervention aimed at enhancing GPs empathy and assessing its impact on their patience through a humanization intervention. The following section will delve into our primary findings and provide an interpretation of these innovative experiments.

Strategies to address ethnic disparities

To address ethnic inequalities in mental healthcare, the hypothesis within the **Chapter 7** was that a humanization intervention, such as the introduction of the patient's life story, could mitigate GPs' discriminatory decisions concerning migrant patients with depression. We postulated that implementing patient humanization would lead to a shift in GPs' decision-making processes, resulting in greater attentiveness and empathy to patients' needs, preferences, and life context. This paradigm shift, in turn, could manifest as an increased willingness to allocate more time to delve into the patient's life story – effectively serving as a proxy of patience, one dimension of humanization.

While unintentional discrimination appeared to persist in primary mental healthcare as demonstrated in **Chapter 6** and **Chapter 7**, humanization intervention only had a slight moderating effect on GPs' decision-making. GPs who received the patient's life story information invested significantly more time reading the introduction and watching the video vignette, particularly when it featured a migrant patient. Interestingly, GPs diagnosed PTSD more frequently in the migrant patient compared to native patient, except when they had access to the patient's life story information, which led to fewer PTSD diagnoses in the migrant patient. Despite this intervention, GPs' decisions regarding treatment and the assessment of symptom severity continued to exhibit variations based on patient ethnicity. An interesting aspect revealed in a previous study suggest that GPs, when grappling with the complex psychosocial problems of their patients, might view prescribing as an expression of empathy– a key dimension of humanizing care (403). However, our findings, indicating a reduced likelihood of treatment prescription for migrant patients, may signify a potential deficit in empathy directed at these people. Additionally, the constraints of time on GPs may contribute to the dehumanization of care (415). Dehumanization of patients by GPs could also contribute to reduce the perception of their own stress and burnout (415). In essence, patient dehumanization can occur when GPs are under stress due to excessive workload and this process may apply to MEM groups but also to other categories of patients.

Our findings diverged from a recent study that explored the potential of activating attachment security¹⁹ to mitigate dehumanization of outgroups (568). In this study, attachment security was induced by exposing participants to images depicting relationships with attachment figures, such as a mother, a couple of lovers, children

¹⁹ Attachment security theory posits that individuals who have experienced consistent care and support in their early relationships are more likely to develop secure, trusting, and emotionally stable interpersonal bonds later in life (Source: Bowlby, 1982).

with grandparents. The research highlighted the significant mediating role of empathy in the relationship between primed attachment security and a reduction in prejudice levels. These results imply that fostering feelings of security and cultivating empathic skills, especially among individuals with high attachment-avoidance tendencies, could contribute to the reduction of prejudice (568).

Moreover, other research has identified a link between attachment-avoidance and negative attitudes towards immigrants' adaptation strategies, demonstrating a correlation between prejudice and racism (569). In accordance with our study, we constructed written scenarios designed to enhance GPs' empathy towards Moroccan migration background patients, with the aim of mitigating their unconscious biases against them. However, our intervention failed to impact the medical decision-making of GPs, possibly due to its format as a written life story. In contrast, a recent study targeting attitudes towards older adults employed digital storytelling with empathy as method. This study presented ten digital stories featuring older adults, allowing participants to choose a story based on props representing each narrative element. These digital stories included similar components as our written life story, such as the **name** of the older individual, an audio recording of their **story** with a younger photograph, text prompting reflection ("Please take a moment to think about my story"), and **video footage** of the older adult expressing gratitude for watching. Interestingly, participants reported that their attitudes changed when these digital stories challenged their preconceived notions about older adults, fostering empathy, particularly through story content, which enabled a deeper understanding of the older adult's experiences. This study underscored the potential of digital storytelling to evoke empathy and positively influence attitudes (570). Moreover, a participant in this study remarked: "I think listening to the stories of elderly people changed my perspective in a positive way as it makes them '**more human**' in a sense, it shows that they aren't just grumpy older people but people who hold so much wisdom and life experience and they have so much to teach the younger generations - Participant 1" (570).

In a similar line of thinking, I believe that our intervention, which aimed to humanize migrant patients through the exploration of their life stories, deserves potential redesign in future research. This investigation is essential to establish conclusive evidence regarding its effectiveness within interethnic consultations with GPs, especially in the context of mental health.

Key findings from Chapter 6 and Chapter 7

- ⇒ Belgian GPs outlined ethnic disparities while diagnosing and prescribing treatment to a Moroccan patient within the context of depression, compared to Belgian patients.
- ⇒ These disparities in medical decisions were exacerbated among older GPs, those experiencing higher perceived workloads, GPs without a migration background, and those with lower trust in the migrant patient.
- ⇒ Humanization intervention did not mitigate these ethnic disparities in medical decisions. However, it appeared that GPs in the experimental condition were more patient specifically with the migrant patient.

8.2. Limitations of the thesis

This thesis presents several limitations that merit attention when interpreting the findings. Three key methodological limitations have been identified: i) the availability of data on ethnicity, ii) the experimental design, and iii) the sampling of GPs.

Availability of data on ethnicity

The **first limitation** identified in this thesis is linked to the lack of comprehensive data on ethnicity. The reliance of self-reported ethnicity data, along with information on parents' country of birth, introduces issues that can undermine the reliability and accuracy of research outcomes. This limitation has significant implications, including the potential for inaccurate knowledge creation and reduced trust among ethnic minority (MEM) populations who may perceive their data as mishandled. Biased findings may also lead to missed opportunities for tailored interventions, such as during the COVID-19 pandemic, where understanding MEM groups' unique risks was critical. Without accurate MEM data, the nuances of their mental health risks may be overlooked, hindering efforts to address ethnic disparities in primary mental healthcare. Additionally, the survey's limited language options may inadvertently exclude respondents who do not speak French, Dutch, German, or English. This limitation is particularly relevant given the significant presence of Italian, Moroccan, and Turkish populations residing in Belgium, many of whom may not be proficient in these languages. Consequently,

this language constraint could have impacted the representativeness of the MEM sample we analysed. When interpreting the findings of Chapter 4, it is imperative to bear in mind these limitations.

Experimental design

The **second limitation** is related to the experimental design employed in Chapter 6 and Chapter 7, which utilised a video vignette. This design consisted of generating inferences about cause-and-effect relationships between **an attribute** of each vignette (a Belgian or a Moroccan patient; with a life story intervention or without a life story intervention), and **GPs responses** to these vignettes reflecting their **attitudes, judgments, beliefs, emotions, knowledge or likely behaviours** (diagnosis, symptom severity assessment, treatment prescription in the realm of depression) (500, 571).

The main critique to this methodology centres around the **artificiality** of vignettes, which may not fully replicate the **real-world conditions experienced by GPs**. In actual practice, GPs often have a personal history with the patient, longer visit durations, a direct stake in the potential consequences of their decisions, and dynamic interactions with patients that shape their clinical judgements. These contextual conditions are not fully mirrored in our experimental design. Additionally, it is worth noting that the decisions made by GPs in our study do not carry the same direct impact on a patient's health as they might in real-life clinical scenarios. Consequently, this approach may be seen as lacking in ecological validity. This may limit the **generalisability** of the findings (500). However, previous research on comparison with other methods like unannounced standardised patients, record abstraction and computerised clinical vignettes underscored that each approach has its strengths and limitations (572, 573).

The gold standard method involves **unannounced standardised patients**, a technique commonly utilised in medical education to simulate clinical encounters, aiding in the instruction and assessment of both students and practicing physicians. This method assesses how patient or physician characteristics influence communication and decision-making behaviours, and to capture real-time physician-patient interactions (574). However, this method can be expensive and raises ethical concerns, as it consumes GPs' time away from real patients. On the other hand, **medical record abstraction** is a process in which physicians manually search through electronic or paper medical records to extract necessary data for secondary use (575). Abstraction includes *“subjective tasks such as categorising, selection of one value from multiple options, interpreting and summarising data from the medical record, as well as objective tasks such as transformation,*

formatting, and calculations based on abstracted data” (575). While record abstraction is widely used, it can introduce a Hawthorne effect²⁰, potentially leading practitioners to under-record actual tests performed and over-record those not performed (573).

Clinical vignettes, like the ones used in this thesis, simulated medical scenarios, are easily administered, replicable in different settings, and offer generalisability when well-structured. Computerised clinical vignettes reduce scoring time, but also suffer from Hawthorne effect, tend to over-estimate examination quality, and are limited to manipulate variables (538, 571-573, 576, 577).

Another important limitation in the experimental design is the inability to analyse verbal and non-verbal communication in the patient-GP relationship, which is crucial in inter-ethnic consultations. These limitations should be considered when interpreting the results, especially regarding unintentional GPs’ discrimination in diagnosing PTSD, symptom severity assessment, and prescription treatment.

Sampling of GPs

The **third limitation** I would like to address concerns the composition of the GP and trainee GP sample analysed Chapter 5, Chapter 6 and Chapter 7. It's essential to acknowledge that this sample may not fully represent the broader population of Belgian GPs. A closer look at our sample composition reveals that it predominantly comprises young female GPs working in group practices located in rural areas (as indicated in Table 10). This composition stands in contrast to the typical Belgian GP population, which primarily consists of older male practitioners, on average 53 years old, working in solo practices (497).

This specific sample composition could have significant implications for interpreting our results. It is possible that the magnitude of ethnic differences observed may have been underestimated for several reasons.

Firstly, considering that individuals with Moroccan migration backgrounds predominantly reside in urban areas in Belgium, GPs in our sample may have had less exposure to MEM patients in their daily practice compared to real-world situations. This could compromise the broader implications of our findings regarding ethnic disparities in primary mental healthcare. Secondly, younger GPs may have lower levels of implicit biases than older GPs, therefore having an

²⁰ Hawthorne effect describes the situation in which the results of an experiment are not due to experimental factors but rather to the fact that the subjects are aware of participating in an experiment in which they are being tested.

influence on the effect size of our results. Lastly, our recruitment process involved inviting GPs to participate in an online survey focused on mental health issues. This could have made our respondents more sensitive to the topic of mental health, possibly affecting the representativeness of the sample.

Overall, these limitations could impact both the internal validity and external validity of our findings, potentially affecting the generalisability of our results to the wider GP population. Firstly, with respect to internal validity, our study may have inadvertently underestimated the occurrence of ethnic disparities in primary mental healthcare. This is because GPs were asked to complete an online questionnaire based on fictitious patient with mental health disorders, which might not fully capture the complexities and nuances of real clinical encounters. Moreover, as previously mentioned, GPs often tend to overestimate the quality of their examinations when presented with clinical vignettes. As a result, their responses may not be entirely representative of their actual clinical practice and decision-making. Secondly, in terms of external validity, the composition of our sample may deviate from the demographics and practice patterns of Belgian GPs in general. This discrepancy could potentially limit the generalisability of our findings to the broader GP community.

8.3. Future perspectives and recommendations

Perspectives

As previously discussed, this doctoral thesis uncovered a wealth of information, illuminating various opportunities for deeper inquiry within this domain: ethnic inequalities in primary mental health care. These findings have generated several relevant questions that merit attention for future research. In this section, I intend to provide insight into two perspectives that can serve as a valuable foundation for advancing future research in this field: i) defining a new operationalisation of the humanization intervention, and ii) implementing a mixed-method research design.

Defining a new operationalisation of the humanization intervention

One of the main findings, as discussed in Chapter 7, relates to the humanization intervention and its potential implications on GPs' decisions, for future perspectives within this dissertation. These perspectives lie in the transformation and refining of the experimental study, specifically by shifting from a written life story intervention to a video-based one. This transition holds promise for several reasons.

Firstly, video-based interventions have the potential to leverage the power of visual and auditory cues, which can be more emotionally resonant and engaging among GPs compared to written information alone. Furthermore, video interventions can facilitate a more immersive and experiential learning process regarding the patient's life story, potentially leading to more important effects on GPs' decision-making. This hypothesis finds support in related research, such as studies on ageism (570). To the best of our knowledge, this hypothesis has not been tested in the realm on primary mental health care within interethnic consultations. In the study aforementioned, participants who received a video containing a "life story" intervention emphasised the authenticity of the digital story, which significantly influenced their experience of empathy toward the storyteller (570). Furthermore, the content of the life story in this study depicted unique characteristics, including enthusiasm, joy and humour (570), elements that may have been missed in our written humanization intervention.

In addition, we could introduce additional information aimed at investigating and addressing implicit pro-endogroup bias, which involves presenting positive information about out-group members (264, 578). Prior research has emphasised the impact of negative stereotypes on medical decisions (579), while another study indicated that positive stereotypes of asylum seeker patients contributed to improved continuity of mental health care (578). This hypothesis merits further

exploration within a video-based intervention framework, similar to the humanization of the patient, as tested in this dissertation.

Consequently, I believe that the design necessitates a complete re-evaluation, especially in terms of operationalisation within the video vignette of the patient's life story. Embracing this modification can contribute to innovative methods of intervention and communication in primary mental healthcare consultations involving migrant and ethnic minority patients with depression.

Mixed-method design

The findings of this dissertation draw upon quantitative data collection and databases tailored to the specific questions addressed. However, an essential aspect that future research could investigate is how GPs perceive these results. I believe that qualitative research can significantly enhance our understanding of mental healthcare provided by GPs to migrant and ethnic minority patients. Qualitative methods could offer a unique perspective that allows us to explore in-depth the complex dynamics of this specific field: the mental health of MEM patients in general medicine consultation. Further qualitative data collection could allow us to delve into the nuanced experiences, perceptions, and the GP-patient relationship, that are key components to take care of MEM patients. Qualitative research would provide the opportunity for GPs to address the barriers they may encounter, and cultural considerations. Simultaneously, it affords GPs the opportunity to articulate their challenges, decision-making processes, and the cultural competence they employ in their practice. By delving into these qualitative dimensions, we would gain valuable insight into the lived experiences and contextual factors that influence the quality and efficacy of mental healthcare for migrant and ethnic minority patients in the GPs practice. This deep understanding could help us in developing healthcare strategies and policies that are not only culturally sensitive but also patient-centred, with the ultimate objective of achieving more ethnically equal mental health care.

In the context of the REMEDI project, we conducted numerous interviews (49) with GPs and GPs in training, along with 8 focus groups involving GPs and 2 focus groups comprising policy makers. However, it is worth noting that these data will be subjected to further analysis in Camille Wets' thesis (UGent). Her research aims to capture perceptions, opinions, and diverse form of self-perception, rather than actual behaviour of GPs, even if this approach acknowledges the possibility of socially desirability.

Recommendations

In this section of the thesis, we present the implications of the results of this thesis for future research. These implications also consider previous recommendations for improving (mental) healthcare for migrant and ethnic minority populations as developed in the past. Our findings have allowed to provide a brief overview of current knowledge regarding ethnic disparities in the risk of mental illness and in primary mental health care among certain MEM populations, such as Moroccans, in comparison to that of Belgians. Furthermore, these results have helped identify the potential role of GPs in perpetuating these disparities. Our research included empirical testing of a humanization intervention, highlighting avenues for future investigation that could significantly contribute to reducing ethnic disparities in primary mental health care. These findings hold the potential to inform future research efforts supporting existing recommendations in various domains, including research, general practice, and policy. In the following sections, we provide a concise summary of certain recommendations and emphasise actionable steps that could be implemented within the Belgian context. These recommendations are oriented towards two key objectives: i) diminishing ethnic disparities in primary mental healthcare, and ii) enhancing the quality of mental healthcare for patients with diverse migratory backgrounds. Further details on these recommendations are available through different research projects (352, 580, 581), reports (4, 582-584), and studies (366, 580, 585-593).

Research

In terms of research, the findings of this thesis make their contribution to the existing knowledge, particularly in the investigation of implicit and explicit ethnic biases among trainee GPs, and in the empirical investigation of an original design to reduce ethnic disparities in mental healthcare. While several studies already investigated the extent of biases in healthcare professionals, and their potential impact on medical decision-making (261, 311, 316, 594), it is worth noting that the USA has largely dominated this field of research, leaving a significant gap in the European context, particularly in Belgium.

Furthermore, these studies outlined evidence-based recommendations for interventions aimed at tackling implicit ethnic bias among healthcare providers. One recommendation that our findings align with is the need to counteract unconscious prejudices and stereotypes through individuation, as suggested by Burgess and colleagues (261). Enhancing empathy in interethnic GP consultations by exploring the unique life stories of patients may positively impact GPs' active listening, as evidenced by increased consultation time with Moroccan patients (as

shown in Table 15). However, we acknowledge that our findings did not allow us to examine the potential reduction of implicit bias among respondents.

For future research, it would be pertinent to assess the effectiveness of interventions aimed at reducing both implicit and explicit biases among trainee GPs as well as practising GPs. One approach could involve incorporating the Implicit Association Test (IAT) and the Hudelson scale, for implicit and explicit bias, respectively, into the routine GP curriculum to evaluate bias levels before and after the intervention. The intervention itself could centre on the individuation strategy (261). The objective would be to raise awareness among GPs about their biases aiming to reduce ethnic biases in their judgement, behaviour, and decision-making. Another intervention worth investigating is one based on Castillo's results (594), which demonstrated a significant reduction in implicit bias measured by the IAT. This intervention involved integrating multicultural counselling classes among graduate assistants and could be relevant for healthcare professionals, such as GPs.

Practice

As this thesis has mainly focused on the practice of general practitioners, we have highlighted some key points in their practice that could be improved in order to reduce the potential occurrence of ethnic disparities. However, we believe that these recommendations could also be applied to other mental healthcare professionals who deal with MEM populations in their daily practice, but our results did not highlight evidence on these providers.

The main recommendation that our findings support is to make GPs aware of their biases as a crucial starting point to reduce unintentional discrimination in mental healthcare (260, 289, 488). In Chapter 5, we highlighted that several trainee GPs expressed the need to be aware of them to tackle their potential impact during an interethnic consultation. There is research evidence that, under certain conditions, individuals can consciously replace automatically activated stereotypes. These studies suggest that a provider is less likely to be influenced by a group stereotype if the provider *"(1) is aware of the potential for judgments, emotions, and behaviours to be biased; (2) is aware of a stereotype being activated; (3) is highly motivated to replace stereotypes with individual information; and (4) has sufficient cognitive resources (time and cognitive capacity) available for all of these cognitive tasks"* (488).

Ethnic disparities among general practitioners are only one aspect of this complex social issue. Therefore, we believe that future research should also investigate to what extent mental health care professionals hold explicit and implicit ethnic biases

that may influence their medical decisions with MEM patients. This shows the high importance of being constantly aware of potential ethnic bias to avoid contributing to mental health disparities (595). To achieve that, an intervention promoting empathy could be relevant to make GPs aware of the importance of being sensitive to cultural diversity. In that sense, patients with mental health disorders often require long-term care to control symptoms throughout the life course, and the provider-patient relationship may therefore influence the patient's recovery, and treatment adherence (250). Further research could investigate deeper the humanization intervention of care to operationalise it in a different way, such as in a digital form (570).

In addition, it is also worth highlighting the importance of collaborative practice for GPs, suggesting that working in group may have considerable advantages, especially in complex situations, such as those involving MEM patients with mental health problems (596). Despite the increasing popularity of group practices among newly graduated GPs, approximately 60% of GPs in Belgium still operate in solo practice (597). However, the mental health care reform in Belgium, initiated in 2011 with a focus on integrating mental health services into primary care, highlighted the imperative for GPs to transition towards integrated and team-based care, thereby potentially influencing their decision-making. The complexity of mental health problems, such as depression within the context of migrant and ethnic minority populations, demands a multidisciplinary approach— an aspect somewhat understated in the different studies within this dissertation. Collaborative initiatives involving mental health care specialists, cultural mediators, social workers, and others have demonstrated effective improvements in depression outcomes among migrant and ethnic minority populations (598). A previous study has also highlighted the positive association between GP co-location and the broader provision of health care services in a primary care setting, fostering increased collaboration among GPs and other primary and secondary care professionals (596). Such collaboration allows for a more thorough understanding of the patient's background, facilitating informal and formal communication and knowledge exchange crucial for culturally competent care (596). Interdisciplinary collaboration not only enhances accurate diagnosis and treatment but also promotes a holistic approach, accounting for social determinants and cultural nuances. This approach ultimately contributes to more equitable and effective mental healthcare outcomes, beneficial for patients with a migration background as well as those without.

Lastly, Priebe and colleagues (220) reported that **organisational flexibility** with sufficient time and resources, good interpreting services, working with families and social services, cultural awareness of staff, educational programmes and

information material for migrants, positive and stable relationships with staff, and clear guidelines on the care entitlements of different migrant groups were also crucial elements to overcome implicit and explicit ethnic biases or limit their impact (220).

Policy

In the scope of healthcare policy, numerous research reports and studies have brought relevant recommendations aimed at mitigating ethnic disparities (4, 398, 582, 599). Within the scope of this thesis, we intend to focus on and support some of these existing recommendations. However, it is essential to acknowledge that official commitment to action in reducing ethnic inequalities in mental healthcare in Europe is evidenced through the establishment of research programs, modifications to national information systems, government report publications, and parliament statements. As emphasised by Whitehead, European countries, and those elsewhere, demonstrate a spectrum of readiness and receptivity to addressing ethnic inequalities in health (600, 601). On one end are countries that neither measure nor acknowledge such differentials. On the other end, few countries, like Scotland, are actively formulating a coordinated national strategy to address the issue (17). In Belgium, there is still a need for efforts in policy, particularly in monitoring policies and health policies, as detailed in this section.

Firstly, regarding the **data monitoring policies**, this dissertation supports the inclusion of migration health data in the National Health Interview Survey (HIS), the integration of core variables relevant to migration and ethnicity, the adoption of sampling strategies to increase refugee and migrant participation, and the translation of the national HIS in several languages (582). These recommendations were outlined by several international research projects. In the WHO report on the collection and integration of data concerning refugee and migrant health, the IMIRA project was pointed out (Improving Health Monitoring in Migrant Populations). This initiative sought to enhance the information available regarding the health of migrants in Germany, addressing the lack of **reliable data** on the subject and aimed to integrate migrants' health into regular health reporting. The findings from the IMIRA project underscored deficiencies in data availability on *"indicator-based description of health status and the utilisation of health services"* among refugees and migrants (602, 603). The integration of migration health data collection not only facilitates implementation but also ensures sustainability and greater accessibility of pertinent information (582).

These recommendations also found support in the UK, where there was a call to enforce statutory guidelines mandating the inclusion of national ethnic monitoring data in all NHS mental health clinical data. This inclusion would facilitate robust

statistical analysis at the trust level, regional, and national levels, helping identify disparities and inequalities across various ethnic groups (179, 604-606).

In Europe, a research project titled EUGATE (Best Practice in Health Services for Immigrants in Europe) which aimed at defining guidelines for best practice and disseminating the findings widely among the relevant stakeholder groups highlighted similar recommendations. They recommended that health registers *“should record and monitor migrant health to facilitate migrant health research”* (254). Moreover, Belgium has also largely supported these recommendations but still efforts are needed to implement them in the routine of data collection. The country was included in numerous international and national research projects, such as the project ETHEALTH, which aimed at *“assessing the views and values of professionals working in different health care contexts and in different European countries as to what constitutes good practice in health care for immigrants”* (599, 607). Belgium was also involved in other research projects that aimed at identifying obstacles and opportunities to implement policies related to the reduction of ethnic disparities in health and health care among migrants and ethnic minorities (608-610).

Although Belgium ranks alongside several other countries regarding anti-discrimination policies that are raising discrimination awareness and reporting (611), our findings indicated that more accurate data collection is needed to tackle ethnic disparities. Furthermore, it denoted that ethnic disparities were present in mental illness risk, especially among Turk and Moroccan populations. However, the data on the country of birth of both parents was inaccurate, limiting our conclusion related to the mental illness risk of the second-generation immigrants from non-EU countries, in Chapter 4. Therefore, including the country of birth of both parents, but also translating the BHIS into multiple languages, and oversampling certain MEM groups could be efficient actions to ensure representative data collection and enhance the statistical power for analysing mental illness risk among first and second-generation MEM populations.

It is crucial to acknowledge that MEM populations are not homogenous in terms of mental health risks due to factors such as differing ethnic backgrounds, access to mental healthcare services, and individual characteristics (112, 440). There is a critical need to underscore the importance of conducting further research on the prevalence of mental illnesses among various migrant and ethnic minority groups in Belgium. This includes populations with Sub-Saharan African backgrounds, and second-generation migrants, who are known for having a higher risk of psychological distress than the first-generation, as highlighted in Chapter 4. A study concluded that *“although some exceptions exist, most health information systems*

in Europe still have a long way to go to improve data collection for the health differences between migrants and non-migrants. Improvements in this respect will be crucial to assess health disparities and improve equity of service provision” (612).

Secondly, while research plays a crucial role in informing **health policy**, mental health research has been found to be less developed and underfinanced compared to research on somatic disorders (597, 613). This disparity is further accentuated when examining quantitative research on the mental health needs of migrant and ethnic minority populations (614). The COVID-19 pandemic underscored this gap, revealing a lack of data on the prevalence of mental health problems, the demand for care, and the provision of care— especially for migrant and ethnic minority populations. While Chapter 4 sought to address this gap by providing an overview of mental illness among different ethnic groups in Belgium over time, this thesis strongly advocates for increased investment in mental health research among migrant and ethnic minority populations. One specific recommendation is to integrate extended consultations in general practices. This approach would alleviate time pressures on GPs, enabling them to better address mental health disorders in collaboration with other primary and secondary mental health professionals, establish trust relationships with patients, and provide culturally adapted mental healthcare. Workload impact on decisions with migrant and ethnic minority patients, as highlighted in Chapter 6, further supports the importance of such initiative.

Thirdly, GPs should receive enhanced support from health policy considering their work in a complex multidisciplinary care system, where competencies are dispersed across various entities in the country (613). A prior study highlighted GPs’ concerns about a fragmented and suboptimally distributed mental health sector contributing to unmet mental health needs in society (159). To alleviate the burden of GPs in dealing with mental health disorders of MEM populations due to the fragmentation of the mental health care sector, a potential recommendation is to further support the integration of psychologists and social workers in the first line of care. It is for example the case with the “Plan Social Santé Intégré” integrating social policy and health policy for the well-being of the Brussels population (615). The primary goal of this program is to organise services on a territorial basis that is closely aligned with local needs and follows a global approach to situations. The connections between somatic care, mental care, and social assistance must be strengthened while respecting the patient's willingness to integrate these different aspects into their care (616). Strengthening such dynamics requires enhancing coordination among social-health actors in daily interventions. It also involves bringing various entities and different levels of authority involved in mental health issues to the table to enhance the organization of services in this domain. Such collaboration

could help GPs handle administrative aspects of consultations with patients with migration backgrounds, refugees and asylum seekers, and can be easily referred by the GPs. An active role for social workers in the comprehensive care process, potentially serving as “case manager” to ensure comprehensive and coordinated care, could be promoted by health care policies (617).

Based upon the findings of this dissertation, another recommendation is to reduce the cost and increase reimbursement for (primary) mental health care, such as consultations with (first-line) psychologists, a factor influencing GPs’ decision-making in interethnic consultations for mental health problems (159). Belgium’s limited reimbursement system for primary mental health care can impact GPs’ decisions, particularly in prescribing psychiatric medication, as the cost is less of a barrier for it, as it is reimbursed. To address this, further resources should be allocated, according to the regions as the concentration of mental health and primary care services strongly differs from one region to another, and mobility impedes access to mental health care in rural areas which is mainly concentrated in the inner cities. Some organisations limit their services to inhabitants of a certain region (159). This could also have an impact on the way GPs diagnose, treat and refer MEM patients with mental health problems. Therefore, GPs should be financially supported when they face the inaccessibility of mental healthcare services.

Lastly, it is also important to acknowledge that Belgian GPs operate in an environment where the media may sometimes depict a biased picture of people with a migration background in the news. This structural racism may influence their perception of their MEM patients. Furthermore, studies have shown that the role of the media significantly influences how people think and perceive society (618, 619). A study, exploring the impact of media framing on perceptions of immigration, revealed that framing migrants positively for their economic contributions resulted in more favourable cognitive responses. On the other hand, framing them as delinquents increased negative perceptions, particularly for culturally remote groups like Moroccans (620). Overall, the delinquency frame led to more negative attitudes toward immigration compared to the economic contribution frame. This study shows the importance of the influence of media on public opinion, in which GPs, as other healthcare professionals, work. Therefore, to mitigate the negative impact of media on perceptions of migration, it would be useful to reduce implicit and explicit biases by implementing a comprehensive media literacy and diversity training program for GPs and GPs in training for instance.

Key recommendations

- ⇒ Research: Exploring patients' life stories could be a valuable research avenue for enhancing empathy and trust in interethnic GP consultations. The focus would be on assessing the positive impact on GPs' active listening, behaviour, and ethnic biases.
- ⇒ Practice: Raising awareness among GPs about their ethnic biases as a crucial initial step in mitigating unintentional discrimination in mental healthcare.
- ⇒ Policy: Enhancing data accuracy by systematically incorporating information on the mental health of migrants, refugees, asylum seekers, and ethnic minorities into routine health information systems. Providing further support for the integration of psychologists and social workers in the first line of care.

8.4. Conclusion

It is essential to acknowledge the potential influence of my perspective as a 27-year-old White female researcher on my approach and experiences in the field. Practising self-reflexivity allows for critical examination of my own personality, implicit and explicit biases, and assumptions that may have impacted the research process, influencing the interpretation of the findings. Confronting challenges in interacting with older GPs, navigating power and age-related dynamics, gender inequalities, and the sensitivity of the topic, particularly during the qualitative data collection of the REMEDI project, is crucial for understanding how GPs discussed and interpreted the findings. However, my position may have posed challenges in gaining a deeper understanding of unintentional discrimination mechanisms by GPs towards patients with a migration background.

In conclusion, it is important to emphasise that the objective of this thesis was never to blame general practitioners for excessive criticism. Instead, the thesis aimed to provide current data on the mental health status of individuals with a migration background and how it is managed while encountering GPs in Belgium. It offered insights into implicit and explicit biases among trainee GPs and provided evidence on individual, interpersonal, and organisational factors within GPs' practice to elucidate and partly explain ethnic disparities in primary mental

healthcare. Furthermore, this dissertation sought to test an intervention designed to potentially mitigate such disparities in GPs' interethnic consultations.

The findings underscore the importance of GPs and trainee GPs being aware of their ethnic biases that may impact medical decisions in interethnic consultations. The research highlighted that GPs did not diagnose, and treat patients with a migration background in the same way as those without a migration background, particularly concerning depression. While the humanization intervention showed limited effectiveness in addressing ethnic disparities in medical decisions, further investigations should be conducted to determine the extent to which humanizing a patient could be an effective intervention to reduce ethnic disparities in GPs' consultation. GPs who humanize too much could be at a higher risk of workload and burnout when dealing with excessive information, negatively affecting their cognitive shortcuts towards patients with a migration background. On the other hand, GPs humanizing too few their patients could lack of empathy, thus impacting their medical decisions. This shed light on the importance of collaboration between GPs with other GPs and other healthcare professionals, and even more when it comes to mental health disorders. Further research should investigate this intervention to find a well-balanced level of humanization taking into account the daily workload of GPs.

Finally, I hope that this thesis has advanced the agenda related to these critical issues and laid the groundwork for more inclusive and equitable healthcare practices. Collective efforts to enhance the quality of care, reduce ethnic disparities, and promote health equity for all individuals, regardless of their migration and ethnic background, are more crucial than ever in an increasingly diverse country such as Belgium and must be prioritised in public health initiatives.

PUBLICATIONS & MEDIA

Publications in peer-reviewed journals

- Duveau, C., Demoulin, S., Dauvrin, M., Lepière, B., & Lorant, V. (2022). Implicit and explicit ethnic biases in multicultural primary care: the case of trainee general practitioners. *BMC Primary Care*, 23(1). <https://doi.org/10.1186/s12875-022-01698-8>.
- Duveau, C., Wets, C., Delaruelle, K., Demoulin, S., Dauvrin, M., Lepière, B., Ceuterick, M., De Maesschalck, S., Bracke, P., & Lorant, V. (2023). Unintentional Discrimination Against Patients with a Migration Background by General Practitioners in Mental Health Management: An Experimental Study. *Administration and Policy in Mental Health and Mental Health Services Research*, 50, 450-460. <https://doi.org/10.1007/s10488-023-01250-5>.
- Lorant, V., Smith, P., Duveau, C., Seeber, K., Bryant, R. A., Mittendorfer-Rutz, E., Melchior, M., Haró, J. M., Compagnoni, M. M., Corrao, G., Ayuso-Mateos, J. L., Sijbrandij, M., & Nicaise, P. (2023). Psychological distress and online advice-seeking in times of COVID-19: vertical and horizontal equity of an e-mental health strategy. *Current Psychology*. <https://doi.org/10.1007/s12144-023-04907-4>.
- Duveau, C., Smith, P., & Lorant, V. (2023). Mental health among people with a migration background in Belgium over the past 20 years: how has the situation evolved? *Archive of Public Health*(81), 176. <https://doi.org/10.1186/s13690-023-01187-z>.
- Duveau, C., Wets, C., Delaruelle, K., Demoulin, S., Dauvrin, M., Lepière, B., Ceuterick, M., De Maesschalck, S., Bracke, P., & Lorant, V. Individual, interpersonal, and organisational factors associated with discrimination in medical decisions affecting people with a migration background with mental health problems: the case of general practice. *Ethnicity & Health*. <https://doi.org/10.1080/13557858.2023.2279476>.

Conference abstracts

- Duveau, C., Wets, C., Delaruelle, K., Lepière, B., Dauvrin, M., Ceuterick, M., Demaesschalck, S., Bracke, P., & Lorant, V. (2021). Discrimination between migrants and non-migrants in depression's management by General Practitioners. *European Journal of Public Health*, 31(Supplement_3). <https://doi.org/10.1093/eurpub/ckab164.695>.
- Duveau, C., & Lorant, V. (2021). How to tackle unintentional discrimination in primary health care: General practitioners' implicit biases and cultural competence. In. Liverpool, UK (online): Society for Social Medicine & Population Health 65th Annual Scientific Virtual Meeting 2021.
- Duveau, C., Wets, C., Delaruelle, K., Demoulin, S., Dauvrin, M., Lepière, B., Ceuterick, M., Bracke, P., & Lorant, V. (2022). OP44 Unintentional discrimination against patients with a migration Background by general practitioners in mental health management: an experimental study. *Journal of Epidemiology and Community Health*, 76(Suppl 1), A22-A22. <https://doi.org/10.1136/jech-2022-SSMabstracts.44>
- Duveau, C., Wets, C., Delaruelle, K., Demoulin, S., Dauvrin, M., Lepière, B., Ceuterick, M., De Maesschalck, S., Bracke, P., & Lorant, V. (2022). Factors influencing general practitioners' decisions in migrant patients with mental health disorder: Camille Duveau. *European Journal of Public Health*, 32(Supplement_3). <https://doi.org/10.1093/eurpub/ckac129.155>
- Duveau, C., Wets, C., Delaruelle, K., Demoulin, S., Dauvrin, M., Lepière, B., Ceuterick, M., De Maesschalck, S., Bracke, P., & Lorant, V. (2022). Unintentional discrimination against patients with a migration background in mental health's management by General Practitioners. In European Society for Health and Medical Sociology Conference. Bologna, Italy: ESHMS conference.
- Duveau, C., Wets, C., Delaruelle, K., Demoulin, S., Dauvrin, M., Lepière, B., Ceuterick, M., De Maesschalck, S., Bracke, P., & Lorant, V. (2022). Unintentional discrimination against patients with a migration background in mental health's management by General Practitioners. Ghent University.
- Duveau, C., Smith, P., & Lorant, V. (2023). P47 Explanatory factors and evolution of common mental health disorders in Belgium from 1997 to

2018 among migrants and non-migrants. Journal of Epidemiology and Community Health, 77(Suppl 1), A74-A75. <https://doi.org/10.1136/jech-2023-SSMabstracts.152>

Podcasts

- Duveau C. (2023). REMEDI : diversité culturelle en médecine générale (1/2). RCF Radio; Podcast. Available from: <https://www.rcf.fr/culture-et-societe/solidaides?episode=338119>
- Duveau C. REMEDI : diversité culturelle en médecine générale (2/2). RCF Radio ; 2023. Podcast. Available from: <https://www.rcf.fr/culture-et-societe/solidaides?episode=338219>

Newspapers

- Duveau C. (2023). Santé mentale : Il vaut mieux s'appeler "Dubois" que "Alaoui" pour être pris en charge par son généraliste. RTBF. 20 janvier 2023. <https://www.rtf.be/article/sante-mentale-il-vaut-mieux-sappeler-dubois-quealaoui-pour-etre-pis-en-charge-par-son-generaliste-11139521>.
- Duveau C. et Durieux S. La santé mentale des personnes issues de l'immigration mal prise en charge. Le Soir. 14 avril 2023. <https://www.lesoir.be/507391/article/2023-04-14/la-sante-mentale-des-personnes-issues-de-limmigration-mal-pis-en-charge#:~:text=Partager%20Accueil%20Soci%C3%A9t%C3%A9,La%20sant%C3%A9%20mentale%20des%20personnes%20issues%20de%20l'immigration%20mal,prescrivent%20aussi%20moins%20de%20traitements>.
- Duveau C. Santé : issus de l'immigration et sous-diagnostiqués. Newsletter Louvain Santé. 2023.
- Duveau, C. (2023). "Inconsciemment, les médecins généralistes discriminent les patients migrants." Le Journal du Médecin (n°2755). 25 mai 2023. https://www.lejournaldumedecin.com/gestion/inconsciemment-les-medecins-generalistes-discriminent-les-patients-migrants/article-normal-68941.html?cookie_check=1687955100

Report

- Wets, C. *, Duveau, C. *, Delaruelle, K., Ceuterick, M., Dauvrin, M., Dumoulin, S., Lepière, B., De Maesschalck, S., Lorant, V. & Bracke, P. REMEDI: GPs' Recommendations to patients with Mental health problems and diverse migration backgrounds. Final Report. Brussels: Belgian Science Policy Office 2023 – 115 p. (BRAIN-be 2.0 (Belgian Research Action through Interdisciplinary Networks)) * Equal contribution

APPENDICES

Appendix 1

List of words used for the Implicit Association Test

Positive stimulus	Negative stimulus
Index 1: Love Index 2: Happy Index 3: Joy Index 4: Beautiful Index 5: Wonderful Index 6: Peace Index 7: Pleasure Index 8: Laughter	Index 9: Ugly Index 10: Injury Index 11: Pain Index 12: Failure Index 13: Dreadful Index 14: Horrible Index 15: Evil Index 16: Nasty
Stimulus French-language first names	Stimulus Moroccan first names
Index 17: Brigitte Index 18: Caroline Index 19: Julien Index 20: Marie Index 21: Nicolas Index 22: Vincent	Index 23: Aziza Index 24: Djamel Index 25: Fatima Index 26: Latifa Index 27: Mohamed Index 28: Rachid

Appendix 2

Hudelson scale

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 or 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 being 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

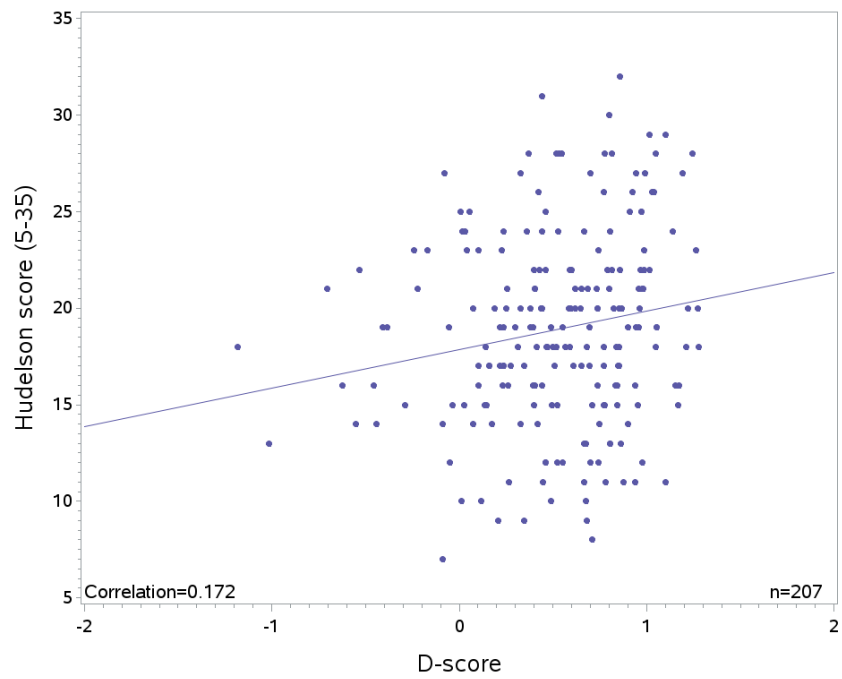
Hospitals should provide written information in the patient's language	1	2	3	4	5	6	7	The patient should arrange the translation of written information provided by the hospital
--	---	---	---	---	---	---	---	--

E. When the patient's health beliefs contradict the 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 3

Figure 16 Correlation between IAT and Hudelson scale



Appendix 4

R² for each covariate

IAT				Hudelson		
Covariates	R ²	RootMSE	DepMean	R ²	RootMSE	DepMean
Political opinion	0,16	0,40	0,54	0,17	4,42	18,54
Practice area	0,24	0,41	0,51	0,11	4,79	18,89
Workload	0,20	0,40	0,52	0,09	4,84	18,81
No. of contacts	0,22	0,40	0,52	0,09	4,83	18,81
Proportion of contact with patient of foreign origin	0,20	0,40	0,52	0,08	4,84	18,81
Overall model (not included in average)	0,18	0,40	0,54	0,21	4,34	18,70

Appendix 5

Video Vignettes in French and in Dutch with the introductory text

Introductory text

“After this introduction, you will see a short video. This video simulates a conversation between a general practitioner and a patient, and takes about three minutes to watch. It is the patient’s second consultation due to persistent headaches.

Despite an extensive anamnesis, physical examination and a CT-scan, no physical cause for the headaches was found.

The patient has no history of psychiatric problems, nor a family history of mental illness. There are no precedents of drug abuse. Besides paracetamol, the patient does not take medication. The patient is currently unemployed.

Then, you will be asked a number of questions about a potential follow-up for this patient. Therefore, it is important that you think of the consultation as if it would be taking place in your own practice. The video was developed in collaboration with a medical scientific advisory board consisting of general practitioners, psychiatrists, psychologists and a psychiatric nurse.

To watch the video, you will need speakers or a headphone.

If the video below does not play correctly, you can watch it via the following link: (one of three video vignettes).”

Videos

1. Native Dutch-speaking patient:
<https://www.youtube.com/watch?v=VLHuXxXNM68>.
2. Native French-speaking patient:
<https://www.youtube.com/watch?v=dvSbtq0GrvU>.
3. Belgo-Moroccan Dutch-speaking patient:
<https://www.youtube.com/watch?v=NA2fKo-2VTs>.
4. Belgo-Moroccan French-speaking GPs:
<https://www.youtube.com/watch?v=6JosPdLTVDs>.

Appendix 6

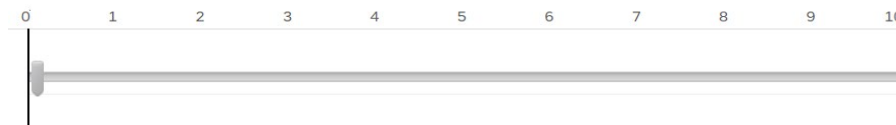
Items included in the REMEDI online questionnaire

A. Diagnosis

- Using the categories below, how would you diagnose the patient? You can select up to three options

☐	Schizophrenia and other psychotic disorders
☐	Bipolar disorder
☐	Depression
☐	Anxiety
☐	Obsessive Compulsive Disorder and related disorders
☐	Post-Traumatic Stress Disorder
☐	Somatization disorder and related disorders
☐	Sleeping disorder
☐	None of the above diagnoses applies to this patient.

- How would you assess the **severity** of the **patient's symptoms**, on a scale from **0 to 10** (with 0 'not serious at all' and 10 'very severe')?



	0	1	2	3	4	5	6	7	8	9	10
Vignette of the patient without a migration background (% of GPs)	0	0	0	0	0.7	1.4	7.1	26.1	40.4	21.8	2.5
Vignette of the patient with a migration background (% of GPs)	0	0.4	0	0	2.2	3.3	6.2	31.5	40.2	14.5	5

B. Treatment

1. Would you **prescribe a medical treatment, a non-medical or a combination of both?**

How likely are you to prescribe this treatment?								
	Vignette of the patient without a migration background				Vignette of the patient with a migration background			
	1 Very unlikely	2 Unlikely	3 Likely	4 Very likely	1 Very unlikely	2 Unlikely	3 Likely	4 Very likely
Medical treatment (%)	1.9	18.8	61.6	17.7	4.1	24.8	53.4	17.7
Non-medical treatment (%)	0.8	4.5	23.8	70.9	1.4	2.4	19.6	76.6
A combined medical and non-medical treatment (%)	0	6.1	28.3	65.6	0.3	8.2	38.9	52.6

C. Referral

How likely would you refer the patient in question?								
	Vignette of the patient without a migration background				Vignette of the patient with a migration background			
	1 Very unlikely	2 Unlikely	3 Likely	4 Very likely	1 Very unlikely	2 Unlikely	3 Likely	4 Very likely
Frequency (%)	0.8	11.5	48.5	39.2	1.0	9.6	46.8	42.6

Appendix 7

Texts for life story intervention.

- First text: *“Mr PEETERS/DUBOIS /ALAOUI²¹, grew up with his family made up of a brother and a sister. Currently, he lives in inner-city with his wife and their two children aged one and three years old. He used to work as an office worker²². He plays football”.*
- Second text: *“The patient also tells you that he is reluctant to take antidepressants, he is very afraid of side effects”*
- Third text: *“Six or seven months ago, the patient was under a lot of pressure at work. He and many of his colleagues were laid off from their job as a result of a company restructuring for financial reasons.”*
- Fourth text: *“You notice in the patient's file that he has been separated for 7 months”.*

²¹ Family name Dutch, Walloon and Moroccan more common.

²² Job more common in Belgian (Les professions en Belgique – StatBel, 2020)

Appendix 8

Practical details about the methodology

The methodological quality and clinical realism of the vignettes were validated by an academic expert in experimental psychology.¹² For more details on the design, see Ceuterick et al.¹³ and Delaruelle et al.¹² The script of the vignettes was developed and validated by an academic expert in experimental psychology and an advisory committee composed of two psychiatrists, two GPs, a psychiatric nurse, a psychologist, and an expert in culturally sensitive care. It was stated that the video simulated a conversation between a GP and a patient who had come for a second consultation due to a persistent headache. Physical examination and a CT scan revealed no physical cause for his headaches. The patient had no history of psychiatric problems, no family history of mental illness, and no history of drug abuse and was unemployed. The introductory text and the YouTube links to the video vignettes are available in both French and Dutch in Appendix 5. To avoid any possible bias, the French and Dutch video vignettes were recorded with the same actors, who were almost perfectly bilingual. Some participants in the pilot study started in February 2021, however, questioned the authenticity of the French accent, so we decided to use lip-sync dubbed videos for the data collection in the French-speaking part of the country.

REFERENCES

1. Bhopal, R. S. (2013). *Migration, Ethnicity, Race, and Health in Multicultural Societies*. Oxford University Press.
<https://doi.org/10.1093/med/9780199667864.001.0001>
2. Poutignat, P., & Streiff-Fenart, J. (2008). *Théories de l'ethnicité*. Presses universitaires de France.
<https://books.google.be/books?id=zNYxPwAACAAJ>
3. United Nations, & EUROSTAT. (2006). *Conference of European Statisticians Recommendations for the 2010 Censuses of Population and Housing*.
https://unece.org/fileadmin/DAM/stats/publications/CES_2010_Census_Recommendations_English.pdf
4. World Health Organization (WHO). (2022). *World report on the health of refugees and migrants Health for all, including refugees and migrants: time to act now*.
5. International Organization for Migration (IOM). (2020). *World Migration Report*.
https://publications.iom.int/system/files/pdf/wmr_2020.pdf
6. International Organization for Migration (IOM). (2019). *International Migration Law: Glossary on Migration*. UN Migration.
7. European Migration Network (EMN). (2014). *Asylum and Migration glossary 3.0*. European Commission
8. Commission Européenne. (2021). *Migration and Home Affairs*.
https://home-affairs.ec.europa.eu/networks/european-migration-network-emn/emn-asylum-and-migration-glossary/glossary/second-generation-migrant_en
9. Official Journal of the European Union. (2008). Council Framework Decision 2008/913/JHA of 28 November 2008 on combating certain forms and expressions of racism and xenophobia by means of criminal law.
<https://eur-lex.europa.eu/legal-content/en/TXT/?uri=CELEX%3A32008F0913>
10. Bhugra, D. (2004). Migration, distress and cultural identity. *British Medical Bulletin*, 69(1), 129-141.
<https://doi.org/10.1093/bmb/ldh007>

11. United Nations High Commissioner for Refugees (UNHCR). (1951). *Convention and Protocol relating to the Status of Refugees*. Retrieved from <https://www.unhcr.org/media/convention-and-protocol-relating-status-refugees>
12. Kanacs, A., & Lecca, P. (2017). *Long-term Social, Economic and Fiscal Effects of Immigration into the EU: The Role of the Integration Policy*. JRC Technical Report. <https://doi.org/10.2760/999095>
13. Atoyan, R., Christiansen, L., Dizioli, A., Ebeke, C., Ilahi, N., A, I., Mehrez, G., Qu, H., Raei, F., Rhee, A., & Zakharova, D. (2016). *Emigration and Its Economic Impact on Eastern Europe*. <https://doi.org/10.5089/9781475576368.006>
14. The Organization for Economic Cooperation and Development (OECD). (2014). *Is migration good for the economy?* www.oecd.org/migration
15. Zimmerman, C., Kiss, L., & Hossain, M. (2011). Migration and Health: A Framework for 21st Century Policy-Making. *PLoS Medicine*, 8(5), e1001034. <https://doi.org/10.1371/journal.pmed.1001034>
16. Cheung, S. (2020). Reference Paper for the 70th Anniversary of the 1951 Refugee Convention Internal Displacement. *United Nations High Commissioner for Refugees (UNHCR)*.
17. Lorant, V., & Bhopal, R. (2011). Comparing policies to tackle ethnic inequalities in health: Belgium 1 Scotland 4. *European Journal of Public Health*, 21(2), 235-240. <https://doi.org/10.1093/eurpub/ckq061>
18. Giacomo, S., & Huddleston, T. (2020). *Migrant Integration Policy Index 2020*. <https://www.mipex.eu/belgium>.
19. Krasnik, A., & Agyemang, C. (2022). Introduction to Concepts of Migration and Health. In. Oral presentation during a Doctoral school in October 2022: University of Copenhagen, Denmark.
20. Giddens, A., Duneier, M., Carr, D., & Appelbaum, R. (2009). *Introduction to sociology* (W. W. Norton & Company, ed.).
21. Johnson, M. R. D., Bhopal, R. S., Ingleby, J. D., Gruer, L., & Petrova-Benedict, R. S. (2019). A glossary for the first World Congress on Migration, Ethnicity, Race and Health. *Public Health*, 172, 85-88. <https://doi.org/10.1016/j.puhe.2019.05.001>
22. The Office of the High Commissioner for Human Rights (OHCHR). (2010). *Minority Rights: International Standards and Guidance for*

- Implementation. Retrieved from <https://www.refworld.org/docid/4db80ca52.html>
23. Bhopal, R. (2004). Glossary of terms relating to ethnicity and race: for reflection and debate. *Journal of Epidemiology & Community Health*, 58(6), 441-445. <https://doi.org/10.1136/jech.2003.013466>
 24. Essink-Bot, M.-L., Agyemang, C., Stronks, K., & Krasnik, A. (2015). Migrant and Ethnic Minority Health: Ethnic Inequalities in Health: A Conceptual Framework. In *A Systematic Review of Key Issues in Public Health* (pp. 189 - 204). Springer Science. <https://doi.org/10.1007/978-3-319-13620-2>
 25. The Linnean Society of London. (2023). *Linnaeus and Race* <https://www.linnean.org/learning/who-was-linnaeus/linnaeus-and-race-easy-read>
 26. Porta, M. (2008). *A dictionary of epidemiology*. Oxford University Press.
 27. Giddens, A. (2001). *Sociology* (4th ed.). Polity Press.
 28. Tylor, E. B. (2010). *Primitive Culture: Researches into the Development of Mythology, Philosophy, Religion, Art, and Custom* (Vol. 2). Cambridge University Press. <https://doi.org/10.1017/CBO9780511705960>
 29. Guarnaccia, P. J., & Rodriguez, O. (1996). Concepts of culture and their role in the development of culturally competent mental health services. *Hispanic Journal of Behavioral Sciences*, 18(4), 419-443. <https://doi.org/10.1177/07399863960184001>
 30. Whaley, A. L., & Davis, K. E. (2007). Cultural competence and evidence-based practice in mental health services: A complementary perspective. *American Psychologist*, 62(6), 563-574. <https://doi.org/10.1037/0003-066X.62.6.563>
 31. Balcazar, F. E., Suarez-Balcazar, Y., & Taylor-Ritzler, T. (2009). Cultural competence: Development of a conceptual framework. *Disability and Rehabilitation*, 31(14), 1153-1160. <https://doi.org/10.1080/09638280902773752>
 32. Tribe, R. (2005). The Mental Health Needs of Refugees and Asylum Seekers. *Mental Health Review Journal*, 10, 8-15. <https://doi.org/10.1108/13619322200500033>
 33. Osborne, E., & De La Sablonnière, R. (2014). Understanding My Culture Means Understanding Myself: The Function of Cultural

- Identity Clarity for Personal Identity Clarity and Personal Psychological Well-Being. *Journal for the Theory of Social Behaviour*, 44(4), 436-458. <https://doi.org/10.1111/jtsb.12061>
34. Tajfel, H., & Turner, J. C. (2004). *The Social Identity Theory of Intergroup Behavior*. Psychology Press. <https://doi.org/10.4324/9780203505984-16>
 35. Berry, J. W. (1992). Acculturation and Adaptation in a New Society. *International Migration*, 30(s1), 69-85. <https://doi.org/https://doi.org/10.1111/j.1468-2435.1992.tb00776.x>
 36. Bhopal, R., Gruer, L., Agyemang, C., Davidovitch, N., De-Graft Aikins, A., Krasnik, A., Martinez-Donate, A. P., Miranda, J. J., Pottie, K., Segal, U., Zwi, A., & Kumar, B. (2021). The Global Society on Migration, Ethnicity, Race and Health: why race can't be ignored even if it causes discomfort. *European Journal of Public Health*, 31(1), 3-4. <https://doi.org/10.1093/eurpub/ckaa191>
 37. Commission Européenne. (2021). *Statistiques sur la migration vers l'Europe*. https://commission.europa.eu/strategy-and-policy/priorities-2019-2024/promoting-our-european-way-life/statistics-migration-europe_fr#les-immigrants-dans-la-soci%C3%A9t%C3%A9-europ%C3%A9enne--chiffres-globaux
 38. Reniers, G. (1999). On the History and Selectivity of Turkish and Moroccan Migration to Belgium. *International Migration*, 37(4), 679-713. <https://doi.org/10.1111/1468-2435.00090>
 39. Eurostat. (2019). *Population and demography*. <https://ec.europa.eu/eurostat/web/population-demography/demography-population-stock-balance/database>
 40. Van Mol, C., & De Valk, H. (2016). *Migration and Immigrants in Europe: A Historical and Demographic Perspective*. Springer International Publishing. https://doi.org/10.1007/978-3-319-21674-4_3
 41. Timmerman, C., Vanderwaeren, E., & Crul, M. (2003). The second generation in Belgium. *International Migration Review*, 37(4), 1065-1090. <https://doi.org/10.1111/j.1747-7379.2003.tb00170.x>
 42. de Haas, H. (2018). *European Migrations: Dynamics, Drivers, and the Role of Policies* (EUR 29060 EN). <https://doi.org/10.2760/168653>

43. Castles, S., De Haas, H., & Miller, M. J. (2014). *The age of migration: International population movements in the modern world*. Palgrave Macmillan.
44. Statbel. (2022). *Diversité selon l'origine en Belgique*. <https://statbel.fgov.be/fr/nouvelles/diversite-selon-lorigine-en-belgique-0>
45. Hatton, T. J., Richter, W. F., & Faini, R. (2004). Seeking Asylum in Europe. *Economic Policy*, 19(38), 5-62. <http://www.jstor.org/stable/1344715>
46. Eurostat. (2023). *Translate Migration and migrant population statistics*. [https://ec.europa.eu/eurostat/statistics-explained/index.php?title=Migration and migrant population statistics](https://ec.europa.eu/eurostat/statistics-explained/index.php?title=Migration_and_migrant_population_statistics)
47. United Nations: Department of Economic and Social Affairs database. (2020). *International Migrant Stock*. https://www.un.org/en/development/desa/population/migration/data/estimates2/docs/MigrationStockDocumentation_2019.pdf
48. European Commission, Joint Research Centre, Szczepanikova, A., & Van Criekinge, T. (2018). *The future of migration in the European Union : future scenarios and tools to stimulate forward-looking discussions*. <https://doi.org/10.2760/274425>
49. The Organization for Economic Cooperation and Development (OECD). (2016). *Perspectives on Global Development 2017: International Migration in a shifting World*. https://www.oecd-ilibrary.org/perspectives-on-global-development-2017_5jlr2glj8htb.pdf?itemId=%2Fcontent%2Fpublication%2Fpersp_glob_dev-2017-en&mimeType=pdf
50. European Migration Network (EMN). (2023). *Annual report on migration and asylum in Belgium 2022*. https://home-affairs.ec.europa.eu/system/files/2023-07/arm2022_Belgium_Part%20II_final.pdf
51. Castelli, F. (2018). Drivers of migration: why do people move? *Journal of travel medicine*, 25(1), 1-7. <https://doi.org/10.1093/jtm/tay040>
52. Gervield, J., & Franchet, Y. (2001). *Facteurs attractifs et répulsifs dans les flux migratoires internationaux*.
53. Eurostat. (2021). *All valid permits by reason, length of validity and citizenship on 31 December of each year*.

https://ec.europa.eu/eurostat/databrowser/view/MIGR_RESVALID_custom_5915540/bookmark/table?lang=en&bookmarkId=0678ef42-666d-46f4-8461-041b810ea270

54. World Health Organization (WHO). (2004). Prevalence, Severity, and Unmet Need for Treatment of Mental Disorders in the World Health Organization World Mental Health Surveys. *JAMA*, 291(21), 2581. <https://doi.org/10.1001/jama.291.21.2581>
55. Amiri, S. (2022). Global prevalence of anxiety and PTSD in immigrants: a systematic review and meta-analysis. *neuropsychiatrie*, 36(2), 69-88. <https://doi.org/10.1007/s40211-022-00411-6>
56. World Health Organization (WHO). (2017). *Migrant populations, including children, at higher risk of mental health disorders*. <https://www.euro.who.int/en/health-topics/health-determinants/migration-and-health/news/news/2017/04/migrant-populations,-including-children,-at-higher-risk-of-mental-health-disorders>
57. World Health Organization (WHO). (2018). *Report on the health of refugees and migrants in the WHO European Region. No Public Health without Refugee and Migrant Health*. <https://apps.who.int/iris/bitstream/handle/10665/311347/9789289053846-eng.pdf?sequence=1&isAllowed=y&ua=1>
58. Burns, J. K., Tomita, A., & Kapadia, A. S. (2014). Income inequality and schizophrenia: Increased schizophrenia incidence in countries with high levels of income inequality. *International Journal of Social Psychiatry*, 60(2), 185-196. <https://doi.org/10.1177/0020764013481426>
59. Sashidharan, S. P. (2001). Institutional racism in British psychiatry. *Psychiatric Bulletin*, 25(7), 244-247. <https://doi.org/10.1192/pb.25.7.244>
60. Singh, S. P. (2007). Institutional racism in psychiatry: lessons from inquiries. *Psychiatric Bulletin*, 31(10), 363-365. <https://doi.org/10.1192/pb.bp.106.013953>
61. World Health Organization (WHO). (1946). *Constitution of the World Health Organization*. <https://apps.who.int/gb/bd/PDF/bd47/EN/constitution-en.pdf>.

62. Centers for Disease Control and Prevention. (2023). *About Mental Health: Mental health basics*.
<https://www.cdc.gov/mentalhealth/learn/index.htm>
63. World Health Organization (WHO). (2022). *Mental health*.
<https://www.who.int/news-room/fact-sheets/detail/mental-health-strengthening-our-response>
64. Semple, D. (1987). *Oxford handbook of psychiatry* (3rd ed., Vol. 16). Oxford University Press.
65. Ruggeri, M., Leese, M., Thornicroft, G., Bisoffi, G., & Tansella, M. (2000). Definition and prevalence of severe and persistent mental illness. *British Journal of Psychiatry*, 177(2), 149-155.
<https://doi.org/10.1192/bjp.177.2.149>
66. Steel, Z., Marnane, C., Iranpour, C., Chey, T., Jackson, J. W., Patel, V., & Silove, D. (2014). The global prevalence of common mental disorders: a systematic review and meta-analysis 1980-2013. *Int J Epidemiol*, 43(2), 476-493. <https://doi.org/10.1093/ije/dyu038>
67. Walker, E. R., McGee, R. E., & Druss, B. G. (2015). Mortality in mental disorders and global disease burden implications: a systematic review and meta-analysis. *JAMA Psychiatry*, 72(4), 334-341.
<https://doi.org/10.1001/jamapsychiatry.2014.2502>
68. GBD 2019 Mental Disorders Collaborators. (2022). Global, regional, and national burden of 12 mental disorders in 204 countries and territories, 1990–2019: a systematic analysis for the Global Burden of Disease Study 2019. *The Lancet Psychiatry*, 9(2), 137-150.
[https://doi.org/10.1016/s2215-0366\(21\)00395-3](https://doi.org/10.1016/s2215-0366(21)00395-3)
69. Greenberg, G. A., & Rosenheck, R. A. (2010). Mental health correlates of past homelessness in the National Comorbidity Study Replication. *J Health Care Poor Underserved*, 21(4), 1234-1249.
<https://doi.org/10.1353/hpu.2010.0926>
70. Schuch, F. B., & Vancampfort, D. (2021). Physical activity, exercise, and mental disorders: it is time to move on. *Trends in Psychiatry and Psychotherapy*. <https://doi.org/10.47626/2237-6089-2021-0237>
71. Stea, T. H., Alvsvåg, L., & Kleppang, A. L. (2021). The Association between Dietary Habits, Substance Use, and Mental Distress among Adults in Southern Norway: A Cross-Sectional Study among 28,047 Adults from the General Population. *International Journal of*

- Environmental Research and Public Health*, 18(18), 9731. <https://doi.org/10.3390/ijerph18189731>
72. Thomson, R. M., Igelström, E., Purba, A. K., Shimonovich, M., Thomson, H., McCartney, G., Reeves, A., Leyland, A., Pearce, A., & Katikireddi, S. V. (2022). How do income changes impact on mental health and wellbeing for working-age adults? A systematic review and meta-analysis. *The Lancet Public Health*, 7(6), e515-e528. [https://doi.org/10.1016/s2468-2667\(22\)00058-5](https://doi.org/10.1016/s2468-2667(22)00058-5)
 73. Kiesler, D. (1999). *Beyond the disease model of mental disorders*. Praeger.
 74. Newbold, B. (2006). Chronic Conditions and the Healthy Immigrant Effect: Evidence from Canadian Immigrants. *Journal of Ethnic and Migration Studies*, 32, 765-784. <https://doi.org/10.1080/13691830600704149>
 75. Vang, Z. M., Sigouin, J., Flenon, A., & Gagnon, A. (2017). Are immigrants healthier than native-born Canadians? A systematic review of the healthy immigrant effect in Canada. *Ethnicity & Health*, 22(3), 209-241. <https://doi.org/10.1080/13557858.2016.1246518>
 76. Aldridge, R. W., Nellums, L. B., Bartlett, S., Barr, A. L., Patel, P., Burns, R., Hargreaves, S., Miranda, J. J., Tollman, S., Friedland, J. S., & Abubakar, I. (2018). Global patterns of mortality in international migrants: a systematic review and meta-analysis. *Lancet (London, England)*, 392(10164), 2553-2566. [https://doi.org/10.1016/S0140-6736\(18\)32781-8](https://doi.org/10.1016/S0140-6736(18)32781-8)
 77. Rivera, B., Casal, B., & Currais, L. (2016). The Healthy Immigrant Effect on Mental Health: Determinants and Implications for Mental Health Policy in Spain. *Administration and Policy in Mental Health and Mental Health Services Research*, 43(4), 616-627. <https://doi.org/10.1007/s10488-015-0668-3>
 78. Elshahat, S., Moffat, T., & Newbold, K. B. (2022). Understanding the Healthy Immigrant Effect in the Context of Mental Health Challenges: A Systematic Critical Review. *Journal of Immigrant and Minority Health*, 24(6), 1564-1579. <https://doi.org/10.1007/s10903-021-01313-5>
 79. Nielsen, S. S., & Krasnik, A. (2010). Poorer self-perceived health among migrants and ethnic minorities versus the majority population in Europe: a systematic review. *International Journal of*

- Public Health*, 55(5), 357-371. <https://doi.org/10.1007/s00038-010-0145-4>
80. Bas-Sarmiento, P., Saucedo-Moreno, M. J., Fernández-Gutiérrez, M., & Poza-Méndez, M. (2017). Mental Health in Immigrants Versus Native Population: A Systematic Review of the Literature. *Archives of Psychiatric Nursing*, 31(1), 111-121. <https://doi.org/10.1016/j.apnu.2016.07.014>
 81. Lindert, J., Carta, M. G., Schäfer, I., & Mollica, R. F. (2016). Refugees mental health—A public mental health challenge. *European Journal of Public Health*, 26(3), 374-375. <https://doi.org/10.1093/eurpub/ckw010>
 82. Blackmore, R., Boyle, J. A., Fazel, M., Ranasinha, S., Gray, K. M., Fitzgerald, G., Misso, M., & Gibson-Helm, M. (2020). The prevalence of mental illness in refugees and asylum seekers: A systematic review and meta-analysis. *PLoS Medicine*, 17(9), e1003337. <https://doi.org/10.1371/journal.pmed.1003337>
 83. Beutel, M. E., Jünger, C., Klein, E. M., Wild, P., Lackner, K. J., Blettner, M., Banerjee, M., Michal, M., Wiltink, J., & Brähler, E. (2016). Depression, anxiety and suicidal ideation among 1st and 2nd generation migrants - results from the Gutenberg health study. *BMC Psychiatry*, 16(1). <https://doi.org/10.1186/s12888-016-0995-2>
 84. Malmusi, D., Palència, L., Ikram, U. Z., Kunst, A. E., & Borrell, C. (2017). Inequalities by immigrant status in depressive symptoms in Europe: the role of integration policy regimes. *Social Psychiatry and Psychiatric Epidemiology*, 52(4), 391-398. <https://doi.org/10.1007/s00127-017-1348-2>
 85. Levecque, K., & Van Rossem, R. (2015). Depression in Europe: Does migrant integration have mental health payoffs? A cross-national comparison of 20 European countries [Article]. *Ethnicity and Health*, 20(1), 49-65. <https://doi.org/10.1080/13557858.2014.883369>
 86. Arranz, S., Camacho, J., Andrés, C., Niubó, I., & Sanchez Gistau, V. (2020). Comparison between a morocco and a native-born population, in a sample of a first episode psychosis. *Rev Psiquiatr Salud Ment*. <https://doi.org/10.1016/j.rpsmen.2020.07.002>
 87. Eiset, A. H., Aoun, M. P., Stougaard, M., Gottlieb, A. G., Haddad, R. S., Frydenberg, M., & Naja, W. J. (2022). The association between long-

- distance migration and PTSD prevalence in Syrian refugees. *BMC Psychiatry*, 22(1). <https://doi.org/10.1186/s12888-022-03982-4>
88. Bustamante, L. H. U., Cerqueira, R. O., Leclerc, E., & Brietzke, E. (2017). Stress, trauma, and posttraumatic stress disorder in migrants: a comprehensive review. *Revista Brasileira de Psiquiatria*, 40(2), 220-225. <https://doi.org/10.1590/1516-4446-2017-2290>
 89. Kirkbride, J. B., Errazuriz, A., Croudace, T. J., Morgan, C., Jackson, D., Boydell, J., Murray, R. M., & Jones, P. B. (2012). Incidence of Schizophrenia and Other Psychoses in England, 1950–2009: A Systematic Review and Meta-Analyses. *PLOS ONE*, 7(3), e31660. <https://doi.org/10.1371/journal.pone.0031660>
 90. González, H. M., Tarraf, W., Whitfield, K. E., & Vega, W. A. (2010). The epidemiology of major depression and ethnicity in the United States. *Journal of Psychiatric Research*, 44(15), 1043-1051. <https://doi.org/10.1016/j.jpsychires.2010.03.017>
 91. Williams, D. R., González, H. M., Neighbors, H., Nesse, R., Abelson, J. M., Sweetman, J., & Jackson, J. S. (2007). Prevalence and Distribution of Major Depressive Disorder in African Americans, Caribbean Blacks, and Non-Hispanic Whites. *Archives of General Psychiatry*, 64(3), 305. <https://doi.org/10.1001/archpsyc.64.3.305>
 92. Lindert, J., Ehrenstein, O. S., Priebe, S., Mielck, A., & Brahler, E. (2009). Depression and anxiety in labor migrants and refugees--a systematic review and meta-analysis. *Soc Sci Med*, 69(2), 246-257. <https://doi.org/10.1016/j.socscimed.2009.04.032>
 93. Fazel, M., Wheeler, J., & Danesh, J. (2005). Prevalence of serious mental disorder in 7000 refugees resettled in western countries: a systematic review. *The Lancet*, 365(9467), 1309-1314. [https://doi.org/10.1016/s0140-6736\(05\)61027-6](https://doi.org/10.1016/s0140-6736(05)61027-6)
 94. Crepet, A., Rita, F., Reid, A., Van Den Boogaard, W., Deiana, P., Quaranta, G., Barbieri, A., Bongiorno, F., & Di Carlo, S. (2017). Mental health and trauma in asylum seekers landing in Sicily in 2015: a descriptive study of neglected invisible wounds. *Conflict and Health*, 11(1). <https://doi.org/10.1186/s13031-017-0103-3>
 95. Aichberger, M. C., Schouler-Ocak, M., Mundt, A., Busch, M. A., Nickels, E., Heimann, H. M., Ströhle, A., Reischies, F. M., Heinz, A., & Rapp, M. A. (2010). Depression in middle-aged and older first generation migrants in Europe: Results from the Survey of Health,

- Ageing and Retirement in Europe (SHARE). *European Psychiatry*, 25(8), 468-475. <https://doi.org/10.1016/j.eurpsy.2009.11.009>
96. Levecque, K., Lodewyckx, I., & Bracke, P. (2009). Psychological distress, depression and generalised anxiety in Turkish and Moroccan immigrants in Belgium. *Social Psychiatry and Psychiatric Epidemiology*, 44(3), 188-197. <https://doi.org/10.1007/s00127-008-0431-0>
 97. Missinne, S., & Bracke, P. (2012). Depressive symptoms among immigrants and ethnic minorities: a population based study in 23 European countries. *Social Psychiatry and Psychiatric Epidemiology*, 47(1), 97-109. <https://doi.org/10.1007/s00127-010-0321-0>
 98. Bengi-Arslan, L., Verhulst, F. C., & Crijnen, A. A. M. (2002). Prevalence and determinants of minor psychiatric disorder in Turkish immigrants living in the Netherlands. *Social Psychiatry and Psychiatric Epidemiology*, 37(3), 118-124. <https://doi.org/10.1007/s001270200003>
 99. De Wit, M. A. S., Tuinebreijer, W. C., Dekker, J., Beekman, A.-J. T. F., Gorissen, W. H. M., Schrier, A. C., Penninx, B. W. J. H., Komproe, I. H., & Verhoeff, A. P. (2008). Depressive and anxiety disorders in different ethnic groups. *Social Psychiatry and Psychiatric Epidemiology*, 43(11), 905-912. <https://doi.org/10.1007/s00127-008-0382-5>
 100. Lebano, A., Hamed, S., Bradby, H., Gil-Salmerón, A., Durá-Ferrandis, E., Garcés-Ferrer, J., Azzedine, F., Riza, E., Karnaki, P., Zota, D., & Linos, A. (2020). Migrants' and refugees' health status and healthcare in Europe: a scoping literature review. *BMC Public Health*, 20(1). <https://doi.org/10.1186/s12889-020-08749-8>
 101. Halvorsrud, K., Nazroo, J., Otis, M., Brown Hajdukova, E., & Bhui, K. (2018). Ethnic inequalities and pathways to care in psychosis in England: a systematic review and meta-analysis. *BMC Medicine*, 16(1). <https://doi.org/10.1186/s12916-018-1201-9>
 102. Veling, W., Selten, J.-P., Veen, N., Laan, W., Blom, J. D., & Hoek, H. W. (2006). Incidence of schizophrenia among ethnic minorities in the Netherlands: A four-year first-contact study. *Schizophrenia Research*, 86(1), 189-193. <https://doi.org/10.1016/j.schres.2006.06.010>
 103. Veling, W., Selten, J.-P., Mackenbach, J. P., & Hoek, H. W. (2007). Symptoms at first contact for psychotic disorder: Comparison

- between native Dutch and ethnic minorities. *Schizophrenia Research*, 95(1), 30-38. <https://doi.org/10.1016/j.schres.2007.06.024>
104. Whitley, R., Wang, J., Fleury, M.-J., Liu, A., & Caron, J. (2017). Mental Health Status, Health Care Utilisation, and Service Satisfaction among Immigrants in Montreal: An Epidemiological Comparison. *The Canadian Journal of Psychiatry*, 62(8), 570-579. <https://doi.org/10.1177/0706743716677724>
 105. Markkula, N., Lehti, V., Gissler, M., & Suvisaari, J. (2017). Incidence and prevalence of mental disorders among immigrants and native Finns: a register-based study. *Soc Psychiatry Psychiatr Epidemiol*, 52(12), 1523-1540. <https://doi.org/10.1007/s00127-017-1432-7>
 106. Ekeberg, K. A., & Abebe, D. S. (2021). Mental disorders among young adults of immigrant background: a nationwide register study in Norway [Article]. *Social Psychiatry and Psychiatric Epidemiology*, 56(6), 953-962. <https://doi.org/10.1007/s00127-020-01980-z>
 107. Lorant, V., Van Oyen, H., & Thomas, I. (2008). Contextual factors and immigrants' health status: double jeopardy. *Health Place*, 14(4), 678-692. <https://doi.org/10.1016/j.healthplace.2007.10.012>
 108. Fakhoury, J., Burton-Jeangros, C., Consoli, L., Duvoisin, A., Courvoisier, D., & Jackson, Y. (2021). Mental health of undocumented migrants and migrants undergoing regularization in Switzerland: a cross-sectional study. *BMC Psychiatry*, 21(1). <https://doi.org/10.1186/s12888-021-03149-7>
 109. Levecque, K., Lodewyckx, I., & Vranken, J. (2007). Depression and generalised anxiety in the general population in Belgium: A comparison between native and immigrant groups. *Journal of Affective Disorders*, 97(1-3), 229-239. <https://doi.org/10.1016/j.jad.2006.06.022>
 110. Ahaddour, C., Van Den Branden, S., & Broeckaert, B. (2016). Institutional Elderly Care Services and Moroccan and Turkish Migrants in Belgium: A Literature Review. *Journal of Immigrant and Minority Health*, 18(5), 1216-1227. <https://doi.org/10.1007/s10903-015-0247-4>
 111. Vervliet, M., Lammertyn, J., Broeckaert, E., & Derluyn, I. (2014). Longitudinal follow-up of the mental health of unaccompanied refugee minors. *Eur Child Adolesc Psychiatry*, 23(5), 337-346. <https://doi.org/10.1007/s00787-013-0463-1>

112. Carta, M. G., Bernal, M., Hardoy, M. C., Haro-Abad, J. M., & Report on the Mental Health in Europe Working, G. (2005). Migration and mental health in Europe (the state of the mental health in Europe working group: appendix 1). *Clinical practice and epidemiology in mental health* 1, 1-16. <https://doi.org/10.1186/1745-0179-1-13>
113. Anderson, K., Giacco, D., Bird, V., Bauer, M., Pfennig, A., Lasalvia, A., Ruggeri, M., Lorant, V., Nicaise, P., Moskalewicz, J., Welbel, M., & Priebe, S. (2021). Do outcomes of psychiatric hospital treatment differ for migrants and non-migrants? *Social Psychiatry and Psychiatric Epidemiology*, 56(11), 1957-1965. <https://doi.org/10.1007/s00127-021-02103-y>
114. Fossion, P., Ledoux, Y., Valente, F., Servais, L., Staner, L., Pelc, I., & Minner, P. (2002). Psychiatric disorders and social characteristics among second-generation Moroccan migrants in Belgium: An age- and gender-controlled study conducted in a psychiatric emergency department. *European Psychiatry*, 17(8), 443-450. [https://doi.org/10.1016/S0924-9338\(02\)00707-1](https://doi.org/10.1016/S0924-9338(02)00707-1)
115. Halvorsrud, K., Nazroo, J., Otis, M., Brown Hajdukova, E., & Bhui, K. (2019). Ethnic inequalities in the incidence of diagnosis of severe mental illness in England: a systematic review and new meta-analyses for non-affective and affective psychoses. *Social Psychiatry and Psychiatric Epidemiology*, 54(11), 1311-1323. <https://doi.org/10.1007/s00127-019-01758-y>
116. Del Favero, E., Brasso, C., Villari, V., & Rocca, P. (2023). Compulsory admission: are there differences between migrants and natives? Data from a psychiatric emergency service of an Italian metropolitan area. *Heliyon*, 9(3), e14406. <https://doi.org/10.1016/j.heliyon.2023.e14406>
117. Singh, S. P., Brown, L., Winsper, C., Gajwani, R., Islam, Z., Jasani, R., Parsons, H., Rabbie-Khan, F., & Birchwood, M. (2015). Ethnicity and pathways to care during first episode psychosis: the role of cultural illness attributions. *BMC Psychiatry*, 15(1). <https://doi.org/10.1186/s12888-015-0665-9>
118. Terhune, J., Dykxhoorn, J., Mackay, E., Hollander, A. C., Kirkbride, J. B., & Dalman, C. (2022). Migrant status and risk of compulsory admission at first diagnosis of psychotic disorder: a population-based

- cohort study in Sweden. *Psychological Medicine*, 52(2), 362-371. <https://doi.org/10.1017/s0033291720002068>
119. Lorant, V., Depuydt, C., Gillain, B., Guillet, A., & Dubois, V. (2007). Involuntary commitment in psychiatric care: what drives the decision? *Social Psychiatry and Psychiatric Epidemiology*, 42(5), 360-365. <https://doi.org/10.1007/s00127-007-0175-2>
 120. Bauwelinck, M., Deboosere, P., Willaert, D., & Vandenheede, H. (2016). Suicide mortality in Belgium at the beginning of the 21st century: differences according to migrant background. *The European Journal of Public Health*, 159. <https://doi.org/10.1093/eurpub/ckw159>
 121. Bursztein Lipsicas, C., Mäkinen, I. H., Apter, A., De Leo, D., Kerkhof, A., Lönnqvist, J., Michel, K., Salander Renberg, E., Sayil, I., Schmidtke, A., Van Heeringen, C., Värnik, A., & Wasserman, D. (2012). Attempted suicide among immigrants in European countries: an international perspective. *Social Psychiatry and Psychiatric Epidemiology*, 47(2), 241-251. <https://doi.org/10.1007/s00127-010-0336-6>
 122. Borges, G., Orozco, R., Rafful, C., Miller, E., & Breslau, J. (2012). Suicidality, ethnicity and immigration in the USA. *Psychological Medicine*, 42(6), 1175-1184. <https://doi.org/10.1017/s0033291711002340>
 123. Anderson, K. K., Flora, N., Archie, S., Morgan, C., & McKenzie, K. (2014). A meta-analysis of ethnic differences in pathways to care at the first episode of psychosis. *Acta Psychiatrica Scandinavica*, 130(4), 257-268. <https://doi.org/10.1111/acps.12254>
 124. Lindberg, L. G., Mundy, S. S., Kristiansen, M., Johansen, K. S., & Carlsson, J. (2019). Satisfaction with mental health treatment among patients with a non-Western migrant background: a survey in a Danish specialized outpatient mental health clinic. *Eur J Public Health*, 29(4), 700-705. <https://doi.org/10.1093/eurpub/ckz090>
 125. Jackson, J. S., Neighbors, H. W., Torres, M., Martin, L. A., Williams, D. R., & Baser, R. (2007). Use of Mental Health Services and Subjective Satisfaction With Treatment Among Black Caribbean Immigrants: Results From the National Survey of American Life. *American Journal of Public Health*, 97(1), 60-67. <https://doi.org/10.2105/ajph.2006.088500>

126. Alegría, M., Chatterji, P., Wells, K., Cao, Z., Chen, C.-N., Takeuchi, D., Jackson, J., & Meng, X.-L. (2008). Disparity in Depression Treatment Among Racial and Ethnic Minority Populations in the United States. *Psychiatric Services*, 59(11), 1264-1272. <https://doi.org/10.1176/ps.2008.59.11.1264>
127. Cook, B. L., Trinh, N.-H., Li, Z., Hou, S. S.-Y., & Progovac, A. M. (2017). Trends in Racial-Ethnic Disparities in Access to Mental Health Care, 2004–2012. *Psychiatric Services*, 68(1), 9-16. <https://doi.org/10.1176/appi.ps.201500453>
128. Shao, Z., Richie, W. D., & Bailey, R. K. (2016). Racial and Ethnic Disparity in Major Depressive Disorder. *Journal of Racial and Ethnic Health Disparities*, 3(4), 692-705. <https://doi.org/10.1007/s40615-015-0188-6>
129. Bailey, R. K., Blackmon, H. L., & Stevens, F. L. (2009). Major depressive disorder in the African American population: meeting the challenges of stigma, misdiagnosis, and treatment disparities. *J Natl Med Assoc*, 101(11), 1084-1089. [https://doi.org/10.1016/s0027-9684\(15\)31102-0](https://doi.org/10.1016/s0027-9684(15)31102-0)
130. Borowsky, S. J., Rubenstein, L. V., Meredith, L. S., Camp, P., Jackson-Triche, M., & Wells, K. B. (2000). Who is at risk of nondetection of mental health problems in primary care? *Journal of General Internal Medicine*, 15(6), 381-388. <https://doi.org/10.1046/j.1525-1497.2000.12088.x>
131. Bailey, Z., Krieger, N., Agénor, M., Graves, J., Linos, N., & Bassett, M. (2017). Structural racism and health inequities in the USA: evidence and interventions. *The Lancet*, 389, 1453-1463. [https://doi.org/10.1016/S0140-6736\(17\)30569-X](https://doi.org/10.1016/S0140-6736(17)30569-X)
132. Quimby, E. (2006). Ethnography's role in assisting mental health research and clinical practice. *Journal of Clinical Psychology*, 62(7), 859-879. <https://doi.org/10.1002/jclp.20277>
133. Nazroo, J., Bhui, K., & Rhodes, J. (2019). Where next for understanding race/ethnic inequalities in severe mental illness? Structural, interpersonal and institutional racism. *Sociology of Health & Illness*, 42, 1-16. <https://doi.org/10.1111/1467-9566.13001>
134. Cantor-Graae, E., & Selten, J.-P. (2005). Schizophrenia and Migration: A Meta-Analysis and Review. *American Journal of Psychiatry*, 162(1), 12-24. <https://doi.org/10.1176/appi.ajp.162.1.12>

135. Worthington, C. (1992). An examination of factors influencing the diagnosis and treatment of black patients in the mental health system. *Archives of Psychiatric Nursing*, 6(3), 195-204. [https://doi.org/10.1016/0883-9417\(92\)90032-E](https://doi.org/10.1016/0883-9417(92)90032-E)
136. Swinnen, S. G. H. A., & Selten, J.-P. (2007). Mood disorders and migration. *British Journal of Psychiatry*, 190(1), 6-10. <https://doi.org/10.1192/bjp.bp.105.020800>
137. Selten, J. P., Van Os, J., & Nolen, W. A. (2003). First admissions for mood disorders in immigrants to the Netherlands. *Social Psychiatry and Psychiatric Epidemiology*, 38(10), 547-550. <https://doi.org/10.1007/s00127-003-0673-9>
138. Bhui, K., Bhugra, D., Goldberg, D., Dunn, G., & Desai, M. (2001). Cultural influences on the prevalence of common mental disorder, general practitioners' assessments and help-seeking among Punjabi and English people visiting their general practitioner. *Psychological Medicine*, 31(5), 815-825. <https://doi.org/10.1017/s0033291701003853>
139. Satinsky, E., Fuhr, D. C., Woodward, A., Sondorp, E., & Roberts, B. (2019). Mental health care utilisation and access among refugees and asylum seekers in Europe: A systematic review. *Health Policy*, 123(9), 851-863. <https://doi.org/10.1016/j.healthpol.2019.02.007>
140. Cooper-Patrick, L., Gallo, J. J., Powe, N. R., Steinwachs, D. M., Eaton, W. W., & Ford, D. E. (1999). Mental health service utilization by African Americans and Whites: the Baltimore Epidemiologic Catchment Area Follow-Up. *Med Care*, 37(10), 1034-1045. <https://doi.org/10.1097/00005650-199910000-00007>
141. Smedley, B. D., Stith, A. Y., & Nelson, A. R. (2003). Healthcare Provider Prejudice or Bias. In. National Academies Press. . <https://doi.org/10.17226/12875>
142. Kapadia, D., Nazroo, J., & Tranmer, M. (2018). Ethnic differences in women's use of mental health services: do social networks play a role? Findings from a national survey. *Ethnicity & Health*, 23(3), 293-306. <https://doi.org/10.1080/13557858.2016.1263283>
143. Jensen, N., Johansen, K., Kastrup, M., Krasnik, A., & Norredam, M. (2014). Patient Experienced Continuity of Care in the Psychiatric Healthcare System—A Study Including Immigrants, Refugees and Ethnic Danes. *International Journal of Environmental Research and*

- Public Health*, 11(9), 9739-9759.
<https://doi.org/10.3390/ijerph110909739>
144. Bosqui, T., Väänänen, A., Buscariolli, A., Koskinen, A., O'Reilly, D., Airila, A., & Kouvonen, A. (2019). Antidepressant medication use among working age first-generation migrants resident in Finland: an administrative data linkage study. *International Journal for Equity in Health*, 18(1). <https://doi.org/10.1186/s12939-019-1060-9>
 145. Norredam, M., Garcia-Lopez, A., Keiding, N., & Krasnik, A. (2009). Risk of mental disorders in refugees and native Danes: a register-based retrospective cohort study. *Social Psychiatry and Psychiatric Epidemiology*, 44(12), 1023-1029. <https://doi.org/10.1007/s00127-009-0024-6>
 146. Westman, J., Johansson, L. M., & Sundquist, K. (2006). Country of birth and hospital admission rates for mental disorders: a cohort study of 4.5 million men and women in Sweden. *European Psychiatry*, 21(5), 307-314. <https://doi.org/10.1016/j.eurpsy.2006.02.001>
 147. van Os, J., McKenzie, K., & Jones, P. (1997). Cultural differences in pathways to care, service use and treated outcomes. *Current Opinion in Psychiatry*, 10(2). https://journals.lww.com/co-psychiatry/fulltext/1997/03000/cultural_differences_in_pathways_to_care_service.23.aspx
 148. Bhui, K., Stansfeld, S., Hull, S., Priebe, S., Mole, F., & Feder, G. (2003). Ethnic variations in pathways to and use of specialist mental health services in the UK. *British Journal of Psychiatry*, 182(2), 105-116. <https://doi.org/10.1192/bjp.182.2.105>
 149. Morales, D. A., Barksdale, C. L., & Beckel-Mitchener, A. C. (2020). A call to action to address rural mental health disparities. *Journal of Clinical and Translational Science*, 4(5), 463-467. <https://doi.org/10.1017/cts.2020.42>
 150. Kugelmass, H. (2016). "Sorry, I'm Not Accepting New Patients": 23An Audit Study of Access to Mental Health Care. *Journal of Health and Social Behavior*, 57(2), 168-183. <https://doi.org/10.1177/0022146516647098>
 151. Kapadia, D. (2023). Stigma, mental illness & ethnicity: Time to centre racism and structural stigma. *Sociology of Health & Illness*, 45(4), 855-871. <https://doi.org/10.1111/1467-9566.13615>

152. Derr, A. S. (2016). Mental Health Service Use Among Immigrants in the United States: A Systematic Review. *Psychiatric Services*, 67(3), 265-274. <https://doi.org/10.1176/appi.ps.201500004>
153. Kapadia, D., Zhang, J., Salway, S., Nazroo, J., Booth, A., Villarroel-Williams, N., Bécares, L., & Esmail, A. (2022). *Ethnic Inequalities in Healthcare: A Rapid Evidence Review*.
154. Bhui, K., Halvorsrud, K., & Nazroo, J. (2018). Making a difference: ethnic inequality and severe mental illness. *The British Journal of Psychiatry*, 213(4), 574-578. <https://doi.org/10.1192/bjp.2018.148>
155. Sashidharan, S. (2003). From Outside to Inside: Improving Mental Health Services for Black and Minority Ethnic Communities in England. *Mental Health Review Journal*, 8(3), 22-25. <https://doi.org/10.1108/13619322200300025>
156. Stronks, K. (2001). Immigrants in the Netherlands: Equal access for equal needs? *Journal of Epidemiology & Community Health*, 55(10), 701-707. <https://doi.org/10.1136/jech.55.10.701>
157. Anson, O. (2001). Inequality in the access to preventive health care: The case of immigrants in Belgium. *Archives of Public Health*, 59, 265-279.
158. Noirhomme, C., Dispas, M., & Smith, P. (2023). *La convention « soins psychologiques » dans le paysage des soins de santé mentale: État des lieux de l'utilisation des soins de santé mentale remboursés et des besoins rencontrés et non-rencontrés en Belgique*. <https://cm-mc.bynder.com/m/5662d0f5fcc167cf/original/Sante-Societe-07-La-convention-soins-psychologiques-dans-le-paysage-des-soins-de-sante-mentale.pdf>
159. Rens, E., Dom, G., Remmen, R., Michielsens, J., & Van Den Broeck, K. (2020). Unmet mental health needs in the general population: perspectives of Belgian health and social care professionals. *International Journal for Equity in Health*, 19(1). <https://doi.org/10.1186/s12939-020-01287-0>
160. Alonso, J., Angermeyer, M. C., Bernert, S., Bruffaerts, R., Brugha, T. S., Bryson, H., Girolamo, G., Graaf, R., Demyttenaere, K., Gasquet, I., Haro, J. M., Katz, S. J., Kessler, R. C., Kovess, V., Lepine, J. P., Ormel, J., Polidori, G., Russo, L. J., Vilagut, G., . . . Vollebergh, W. A. M. (2004). Use of mental health services in Europe: results from the European Study of the Epidemiology of Mental Disorders (ESEMeD) project.

- Acta Psychiatrica Scandinavica*, 109(s420), 47-54.
<https://doi.org/10.1111/j.1600-0047.2004.00330.x>
161. Barbato, A., Vallarino, M., Rapisarda, F., Lora, A., & Caldas de Almeida, J. (2020). *Access to Mental Health Care in Europe*.
<https://www.lisboninstitutegmh.org/assets/files/Access%20to%20mental%20health%20care%20in%20Europe.pdf>
 162. Menchetti, M., Tarricone, I., Bortolotti, B., & Berardi, D. (2006). Integration between general practice and mental health services in Italy: guidelines for consultation-liaison services implementation. *International Journal of Integrated Care*, 6(2).
<https://doi.org/10.5334/ijic.152>
 163. World Health Organization (WHO). (2010). *Health of Migrants - The Way Forward: Report of a global consultation*.
<https://www.who.int/publications/i/item/health-of-migrants-the-way-forward>
 164. Cuvelier, L., Gillet, A., & Mathy, J. (2018). *Livre Noir de la Santé Mentale à Bruxelles - Le vécu des médecins généralistes*.
<http://docs.toubipbip.be/docs/7a40c4ac167c7f30.pdf>
 165. Stone, J., & Moskowitz, G. B. (2011). Non-conscious bias in medical decision making: what can be done to reduce it? *Medical Education*, 45(8), 768-776. <https://doi.org/10.1111/j.1365-2923.2011.04026.x>
 166. Dehon, E., Weiss, N., Jones, J., Faulconer, W., Hinton, E., & Sterling, S. (2017). A Systematic Review of the Impact of Physician Implicit Racial Bias on Clinical Decision Making. *Academic Emergency Medicine*, 24(8), 895-904. <https://doi.org/10.1111/acem.13214>
 167. Bracke, P., Delaruelle, K., & Verhaeghe, M. . (2019). Dominant cultural and personal stigma beliefs and the utilization of mental health services: a cross-national comparison. *FRONTIERS IN SOCIOLOGY*, 4. <https://doi.org/10.3389/fsoc.2019.00040>
 168. Lepière, B., Reynaert, C., van Meerbeeck, P., & Lorant, V. (2014). General practice and ethnicity: an experimental study of doctoring. *BMC Family Practice*, 15(1), 89. <https://doi.org/10.1186/1471-2296-15-89>
 169. Paradies, Y., Truong, M., & Priest, N. (2014). A Systematic Review of the Extent and Measurement of Healthcare Provider Racism. *Journal of General Internal Medicine*, 29(2), 364-387.
<https://doi.org/10.1007/s11606-013-2583-1>

170. Nicaise, P., Lorant, V., & Dubois, V. (2013). Psychiatric Advance Directives as a complex and multistage intervention: a realist systematic review. *Health & Social Care in the Community*, 21(1), 1-14. <https://doi.org/10.1111/j.1365-2524.2012.01062.x>
171. Alevanti, E. (2020). *Mental Healthcare Reform in Belgium: a qualitative study with mobile teams* Birmingham City University. Birmingham. <https://www.open-access.bcu.ac.uk/12383/1/Eleni%20Alevanti%20Thesis%20eSubmission.pdf>
172. Burgess, D., Fu, S., & van Ryn, M. (2004). Why do providers contribute to disparities and what can be done about it? *Journal of General Internal Medicine*, 19(11), 1154-1159. <https://doi.org/10.1111/j.1525-1497.2004.30227.x>
173. van Ryn, M., & Fu, S. S. (2003). Paved With Good Intentions: Do Public Health and Human Service Providers Contribute to Racial/Ethnic Disparities in Health? *American Journal of Public Health*, 93(2), 248-255. <https://doi.org/10.2105/ajph.93.2.248>
174. Spencer, K., & Grace, M. (2016). Social Foundations of Health Care Inequality and Treatment Bias. *Annual Review of Sociology*, 42, 101-120. <https://doi.org/10.1146/annurev-soc-081715-074226>
175. Cabé, C., & Lefebvre, M. (2023). Egalité une utopie nécessaire. In "L'atlas des inégalités" (Vol. 72). Le Monde SA, .
176. Ingleby, D., Dias, S., Magnus, J., Nordström, C., & Kumar, B. (2018). *JAHEE Policy Framework for Action : WP 7 - Migration and Health*. <https://jahee.iss.it/wp-content/uploads/2019/06/WP7-PFA.pdf>
177. Nazroo, J., & Karlsen, S. (2001). Ethnic inequalities in health: social class, racism and identity. *Economic & Social Research Council*. <https://www.lancaster.ac.uk/fass/projects/hvp/pdf/fd10.pdf>
178. Pager, D., & Shepherd, H. (2008). The Sociology of Discrimination: Racial Discrimination in Employment, Housing, Credit, and Consumer Markets. *Annual Review of Sociology*, 34, 181-209. <https://doi.org/10.1146/annurev.soc.33.040406.131740>
179. Smedley, B. D., Stith, A. Y., & Nelson, A. R. (2002). *Unequal treatment: confronting racial and ethnic disparities in health care* (Journal of the National Medical Association, Issue. <https://pubmed.ncbi.nlm.nih.gov/12152921https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2594273/>

180. Drewniak, D., Krones, T., Sauer, C., & Wild, V. (2016). The influence of patients' immigration background and residence permit status on treatment decisions in health care. Results of a factorial survey among general practitioners in Switzerland. *Social Science & Medicine*, 161, 64-73.
<https://doi.org/10.1016/j.socscimed.2016.05.039>
181. Sow, M., Schoenborn, C., De Spiegelaere, M., & Racape, J. (2019). Influence of time since naturalisation on socioeconomic status and low birth weight among immigrants in Belgium. A population-based study. *PLOS ONE*, 14(8), e0220856.
<https://doi.org/10.1371/journal.pone.0220856>
182. Nowak, A. C., Nutsch, N., Brake, T.-M., Gehrlein, L.-M., & Razum, O. (2023). Associations between postmigration living situation and symptoms of common mental disorders in adult refugees in Europe: updating systematic review from 2015 onwards. *BMC Public Health*, 23(1). <https://doi.org/10.1186/s12889-023-15931-1>
183. Tackling Health Inequalities in Belgium (TAHIB). (2010). *L'inégalité sociale en matière de santé reste tenace en Belgique*.
https://www.sacopar.be/wp-content/uploads/2018/03/inegalites_sociales_en_matiere_de_sant_e_reste_tenace.pdf
184. Bauböck, R. (2006). *Migration and citizenship*. University Press.
185. Service public de Wallonie Intérieur et Action sociale. (2023, 17/08/2023). *Ressortissants Européens et non-Européens | Elections locales*. <http://electionslocales.wallonie.be/node/278>
186. Martiniello, M. (2005). *Political Participation, Mobilisation and Representation of Immigrants and Their Offspring in Europe* (16505743 (ISSN)). (Willy Brandt Series of Working Papers in International Migration and Ethnic Relations, Issue. <http://urn.kb.se/resolve?urn=urn:nbn:se:mau:diva-12894>
187. Baker, E. H. Socioeconomic Status, Definition. In *The Wiley Blackwell Encyclopedia of Health, Illness, Behavior, and Society* (pp. 2210-2214).
<https://doi.org/https://doi.org/10.1002/9781118410868.wbehibs395>
188. Mittal, O., Scherer, R., & Nilsen, T. (2022). Assessing the evidence for the comparability of socioeconomic status between students with

- and without immigrant background in Norway and Sweden. *Large-scale Assessments in Education*, 10(1). <https://doi.org/10.1186/s40536-022-00132-w>
189. Lenkeit, J., Caro, D. H., & Strand, S. (2015). Tackling the remaining attainment gap between students with and without immigrant background: an investigation into the equivalence of SES constructs. *Educational Research and Evaluation*, 21(1), 60-83. <https://doi.org/10.1080/13803611.2015.1009915>
 190. Siddiq, H., & Najand, B. (2022). Immigration Status, Socioeconomic Status, and Self-Rated Health in Europe. *International Journal of Environmental Research and Public Health*, 19(23), 15657. <https://doi.org/10.3390/ijerph192315657>
 191. Bauer, J. M., Brand, T., & Zeeb, H. (2020). Pre-migration socioeconomic status and post-migration health satisfaction among Syrian refugees in Germany: A cross-sectional analysis. *PLoS Medicine*, 17(3), 1-20. <https://doi.org/10.1371/journal.pmed.1003093>
 192. Laveist, T., Pollack, K., Thorpe, R., Fesahazion, R., & 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. <https://doi.org/10.1377/hlthaff.2011.0640>
 193. Hanslmaier, M., Teltemann, J., & Windzio, M. (2023). Spatial segregation of families with migrant background in the high-status City of Munich: How strong is the effect of socio-economic status? *Front. Sociol.*, 8(1061975), 1-12. <https://doi.org/10.3389/fsoc.2023.1061975>
 194. Brunori, C., Luijkx, R., & Triventi, M. (2020). Immigrants' selectivity and their socio-economic outcomes in the destination country: The Italian case. *Population, Space and Place*, 26(7). <https://doi.org/10.1002/psp.2352>
 195. The Organization for Economic Cooperation and Development (OECD). (2015). *Education Policy Outlook*. Belgium. Retrieved from <https://www.oecd-ilibrary.org/content/publication/9789264225442-en>
 196. Koehler, C., & Schneider, J. (2019). Young refugees in education: the particular challenges of school systems in Europe. *Comparative Migration Studies*, 7(1). <https://doi.org/10.1186/s40878-019-0129-3>

197. Assari, S., & Bazargan, M. (2019). Unequal Associations between Educational Attainment and Occupational Stress across Racial and Ethnic Groups. *International Journal of Environmental Research and Public Health*, 16(19), 3539. <https://doi.org/10.3390/ijerph16193539>
198. Assari, S., Preiser, B., & Kelly, M. (2018). Education and Income Predict Future Emotional Well-Being of Whites but Not Blacks: A Ten-Year Cohort. *Brain Sciences*, 8(7), 122. <https://doi.org/10.3390/brainsci8070122>
199. Assari, S. (2018). Parental Education Better Helps White than Black Families Escape Poverty: National Survey of Children's Health. *Economies*, 6(2), 30. <https://doi.org/10.3390/economies6020030>
200. Neels, K. (2000). Education and the transition to employment: young Turkish and Moroccan adults in Belgium. In *Communities and Generations. Turkish and Moroccan Populations in Belgium* (pp. 243-278). VUB University Press.
201. Auspurg, K., Schneck, A., & Hinz, T. (2018). Closed doors everywhere? A meta-analysis of field experiments on ethnic discrimination in rental housing markets. *Journal of Ethnic and Migration Studies*, 45, 1-20. <https://doi.org/10.1080/1369183X.2018.1489223>
202. Flage, A. (2018). Ethnic and gender discrimination in the rental housing market: Evidence from a meta-analysis of correspondence tests, 2006–2017. *Journal of Housing Economics*, 41, 251-273. <https://doi.org/10.1016/j.jhe.2018.07.003>
203. Hynie, M. (2018). The Social Determinants of Refugee Mental Health in the Post-Migration Context: A Critical Review. *Canadian Journal of Psychiatry*, 63(5), 297-303. <https://doi.org/10.1177/0706743717746666>
204. Verhaeghe, P.-P., Martiniello, B., Endrich, M., & Landschoot, L. (2023). Ethnic discrimination on the shared short-term rental market of Airbnb: evidence from a correspondence study in Belgium. *International Journal of Hospitality Management*, 109, 103423. <https://doi.org/10.1016/j.ijhm.2022.103423>
205. Martiniello, B., & Verhaeghe, P.-P. (2023). Different names, different discrimination? How perceptions of names can explain rental discrimination. *FRONTIERS IN SOCIOLOGY*, 8, 1125384. <https://doi.org/10.3389/fsoc.2023.1125384>

206. Ghekiere, A., Lippens, L., Baert, S., & Verhaeghe, P.-P. (2023). Ethnic discrimination on paper: uncovering realtors' willingness to discriminate with mystery mails. *Applied Economics Letters*, 30(9), 1235-1238. <https://doi.org/10.1080/13504851.2022.2044006>
207. National Academies Press (NAP). (2004). *Measuring racial discrimination*. National Research Council. <https://doi.org/10.17226/10887>
208. de Lima, P., Bernabè, S., Bubbico, R. L., Leonardo, & Weiss, C. (2016). *Migration and the EU - Challenges, opportunities, the role of EIB*. https://www.eib.org/attachments/migration_and_the_eu_en.pdf
209. Kumar, B. N., & Krasnik, A. (2021). A New Focus on Migration Health. In (pp. 335-355). Springer International Publishing. https://doi.org/10.1007/978-3-030-48291-6_15
210. Butler, M., Warfa, N., Khatib, Y., & Bhui, K. (2015). Migration and common mental disorder: An improvement in mental health over time? [Article]. *International Review of Psychiatry*, 27(1), 51-63. <https://doi.org/10.3109/09540261.2014.996858>
211. World Health Organization (WHO). (2019). *Refugee and Migrant Health*. https://www.who.int/health-topics/refugee-and-migrant-health#tab=tab_1
212. Malmusi, D., Borrell, C., & Benach, J. (2010). Migration-related health inequalities: Showing the complex interactions between gender, social class and place of origin. *Social Science & Medicine*, 71(9), 1610-1619. <https://doi.org/10.1016/j.socscimed.2010.07.043>
213. Adler, N. E., & Rehkopf, D. H. (2008). U.S. disparities in health: descriptions, causes, and mechanisms. *Annu Rev Public Health*, 29, 235-252. <https://doi.org/10.1146/annurev.publhealth.29.020907.090852>
214. Bhugra, D., Gupta, S., Schouler-Ocak, M., Graeff-Calliess, I., Deakin, N. A., Qureshi, A., Dales, J., Moussaoui, D., Kastrup, M., Tarricone, I., Till, A., Bassi, M., & Carta, M. (2014). EPA Guidance Mental Health Care of Migrants. *European Psychiatry*, 29(2), 107-115. <https://doi.org/10.1016/j.eurpsy.2014.01.003>
215. Zhang, W., & Ta, V. M. (2009). Social connections, immigration-related factors, and self-rated physical and mental health among Asian Americans. *Soc Sci Med*, 68(12), 2104-2112. <https://doi.org/10.1016/j.socscimed.2009.04.012>

216. Kirmayer, L. J., Narasiah, L., Munoz, M., Rashid, M., Ryder, A. G., Guzder, J., Hassan, G., Rousseau, C., & Pottie, K. (2011). Common mental health problems in immigrants and refugees: general approach in primary care. *Canadian Medical Association Journal*, 183(12), E959-E967. <https://doi.org/10.1503/cmaj.090292>
217. Giacco, D., Laxhman, N., & Priebe, S. (2018). Prevalence of and risk factors for mental disorders in refugees. *Seminars in Cell & Developmental Biology*, 77, 144-152. <https://doi.org/10.1016/j.semcdb.2017.11.030>
218. Kumar, B., & Diaz, E. (2019). *Migrant Health: A Primary Care Perspective* (1st ed.). CRC Press. <https://doi.org/10.1201/9781351017190>
219. Paradies, Y., Ben, J., Denson, N., Elias, A., Priest, N., Pieterse, A., Gupta, A., Kelaheer, M., & Gee, G. (2015). Racism as a Determinant of Health: A Systematic Review and Meta-Analysis. *PLOS ONE*, 10(9), e0138511. <https://doi.org/10.1371/journal.pone.0138511>
220. Priebe, S., Sandhu, S., Dias, S., Gaddini, A., Greacen, T., Ioannidis, E., Kluge, U., Krasnik, A., Lamkaddem, M., Lorant, V., Riera, R. P., Sarvary, A., Soares, J. J., Stankunas, M., Straßmayr, C., Wahlbeck, K., Welbel, M., & Bogic, M. (2011). Good practice in health care for migrants: views and experiences of care professionals in 16 European countries. *BMC Public Health*, 11(1), 187. <https://doi.org/10.1186/1471-2458-11-187>
221. Pandey, M., Maina, R. G., Amoyaw, J., Li, Y., Kamrul, R., Michaels, C. R., & Maroof, R. (2021). Impacts of English language proficiency on healthcare access, use, and outcomes among immigrants: a qualitative study. *BMC health services research*, 21(1). <https://doi.org/10.1186/s12913-021-06750-4>
222. Tinghög, P., Malm, A., Arwidson, C., Sigvardsdotter, E., Lundin, A., & Saboonchi, F. (2017). Prevalence of mental ill health, traumas and postmigration stress among refugees from Syria resettled in Sweden after 2011: a population-based survey. *BMJ Open*, 7(12), e018899. <https://doi.org/10.1136/bmjopen-2017-018899>
223. Schwartz, S. J., Unger, J. B., Zamboanga, B. L., & Szapocznik, J. (2010). Rethinking the concept of acculturation: Implications for theory and research. *American Psychologist*, 65(4), 237-251. <https://doi.org/10.1037/a0019330>

224. Purgato, M., Turrini, G., Tedeschi, F., Serra, R., Tarsitani, L., Compri, B., Muriago, G., Cadorin, C., Ostuzzi, G., Nicaise, P., Lorant, V., Sijbrandij, M., Witteveen, A., Ayuso-Mateos, J., Mediavilla, R., Haro, J., Felez-Nobrega, M., Figueiredo, N., Pollice, G., & Barbui, C. (2023). Effectiveness of a stepped-care programme of WHO psychological interventions in migrant populations resettled in Italy: Study protocol for the RESPOND randomized controlled trial. *Frontiers in Public Health*, 11, 1100546. <https://doi.org/10.3389/fpubh.2023.1100546>
225. Hou, W. K., Liu, H., Liang, L., Ho, J., Kim, H., Seong, E., Bonanno, G. A., Hobfoll, S. E., & Hall, B. J. (2020). Everyday life experiences and mental health among conflict-affected forced migrants: A meta-analysis. *Journal of Affective Disorders*, 264, 50-68. <https://doi.org/https://doi.org/10.1016/j.jad.2019.11.165>
226. Chen, W., Hall, B. J., Ling, L., & Renzaho, A. M. (2017). Pre-migration and post-migration factors associated with mental health in humanitarian migrants in Australia and the moderation effect of post-migration stressors: Findings from the first wave data of the BNLA cohort study. *Lancet Psychiatry*, 4(3), 218–229. [https://doi.org/10.1016/s2215-0366\(17\)30032-9](https://doi.org/10.1016/s2215-0366(17)30032-9)
227. International Organization for Migration (IOM). (2013). Children on the Move. (ENG0245), 1-114.
228. Walsh Paton, N., Gallón, N., Lainé, B., & Vallalón, C. (2023). *The Trek: A Migrant Trail to America*. CNN. <https://edition.cnn.com/2023/04/17/politics/darien-gap-migrants-panama-what-matters/index.html>
229. Spallek, J., Zeeb, H., & Razum, O. (2011). What do we have to know from migrants' past exposures to understand their health status? a life course approach. *Emerging Themes in Epidemiology*, 8(1), 6. <https://doi.org/10.1186/1742-7622-8-6>
230. Rothe, E., & Pumariega, A. (2011). Identity and Acculturation in Immigrant and Second Generation Adolescents. *Adolescent Psychiatry*, 1(1), 1-9. <https://doi.org/10.2174/2210676611101010072>
231. Haasen, C., Levit, O., Gelbert, A., Foroutan, N., Norovjav, A., Sinaa, M., & Demiralay, C. (2007). Relationship between mental distress and acculturation among migrants. *Psychiatr Prax*, 34(7), 339-342. <https://doi.org/10.1055/s-2007-971014>

232. Klein, E. M., Müller, K. W., Wölfling, K., Dreier, M., Ernst, M., & Beutel, M. E. (2020). The relationship between acculturation and mental health of 1st generation immigrant youth in a representative school survey: does gender matter? *Child and Adolescent Psychiatry and Mental Health*, 14(1). <https://doi.org/10.1186/s13034-020-00334-6>
233. Klein, C. (2020). *Confidence Intervals on Implicit Association Test Scores Are Really Rather Large*. Center for Open Science. <https://dx.doi.org/10.31234/osf.io/5djkh>
234. Choy, B., Arunachalam, K., S, G., Taylor, M., & Lee, A. (2021). Systematic review: Acculturation strategies and their impact on the mental health of migrant populations. *Public Health Pract (Oxf)*, 2, 100069. <https://doi.org/10.1016/j.puhip.2020.100069>
235. Leyens, J.-P. (2012). *Sommes-nous tous racistes ?* Mardaga.
236. Tajfel, H., & Turner, J. C. (1979). *An integrative theory of intergroup conflict*. CA: Brooks/Cole.
237. Schneider, D. (2005). *The psychology of Stereotyping*.
238. Chapman, E. N., Kaatz, A., & Carnes, M. (2013). Physicians and implicit bias: how doctors may unwittingly perpetuate health care disparities. *J Gen Intern Med*, 28(11), 1504-1510. <https://doi.org/10.1007/s11606-013-2441-1>
239. Yzerbyt, V., & Klein, O. (2019). *Psychologie sociale*. De Boeck Supérieur, .
240. Brown, R. J. (1995). *Prejudice : Its social psychology*. Blackwell.
241. Guimond, S. (2023). Les discriminations individuelles et institutionnelles : Apports théoriques et méthodologiques de la psychologie sociale. *Appartenances & Altérités*(3). <https://doi.org/10.4000/alterites.509>
242. Hoyt D'Anna, L., Hansen, M., Mull, B., Canjura, C., Lee, E., & Sumstine, S. (2018). Social Discrimination and Health Care: A Multidimensional Framework of Experiences among a Low-Income Multiethnic Sample. *Social Work in Public Health*, 33(3), 187-201. <https://doi.org/10.1080/19371918.2018.1434584>
243. Ståhl, T., Wismar, M., Ollila, E., Lahntinen, E., & Kimmo, L. (2006). *Health in All Policies. Prospects and potentials*. European Observatory on Health Systems and Policies.

244. World Health Organization (WHO). (2010). *A conceptual framework for action on the social determinants of health*. <https://apps.who.int/iris/handle/10665/44489>
245. Purnell, T. S., Calhoun, E. A., Golden, S. H., Halladay, J. R., Krok-Schoen, J. L., Appelhans, B. M., & Cooper, L. A. (2016). Achieving Health Equity: Closing The Gaps In Health Care Disparities, Interventions, And Research. *Health Affairs*, 35(8), 1410-1415. <https://doi.org/10.1377/hlthaff.2016.0158>
246. Abubakar, I., Gram, L., Lasoye, S., Achiume, E. T., Becares, L., Bola, G. K., Dhairyawan, R., Lasco, G., McKee, M., Paradies, Y., Sabharwal, N. S., Selvarajah, S., Shannon, G., & Devakumar, D. (2022). Confronting the consequences of racism, xenophobia, and discrimination on health and health-care systems. *The Lancet*, 400(10368), 2137-2146. [https://doi.org/10.1016/s0140-6736\(22\)01989-4](https://doi.org/10.1016/s0140-6736(22)01989-4)
247. De Wever, B. (2011). *Right-wing Flanders, Left-wing Wallonia? Is this so ? If so, why? And is it a problem?* Re-Bel.
248. Beaglehole, R. (2006). The challenge of health inequalities. *The Lancet*, 367(9510), 559-560. [https://doi.org/10.1016/s0140-6736\(06\)68205-6](https://doi.org/10.1016/s0140-6736(06)68205-6)
249. World Health Organization (WHO). (2010). *How Health Systems can Address Health Inequities Linked to Migration and Ethnicity*.
250. Mechanic, D. (2002). Disadvantage, Inequality, And Social Policy. *Health affairs (Project Hope)*, 21, 48-59. <https://doi.org/10.1377/hlthaff.21.2.48>
251. Williams, D. R., Mohammed, S. A., Leavell, J., & Collins, C. (2010). Race, socioeconomic status, and health: Complexities, ongoing challenges, and research opportunities. *Annals of the New York Academy of Sciences*, 1186(1), 69-101. <https://doi.org/10.1111/j.1749-6632.2009.05339.x>
252. Williams, D. R., & Purdie-Vaughns, V. (2016). Needed Interventions to Reduce Racial/Ethnic Disparities in Health. *Journal of Health Politics, Policy and Law*, 41(4), 627-651. <https://doi.org/10.1215/03616878-3620857>
253. Alegría, M., Bijl, R. V., Lin, E., Walters, E. E., & Kessler, R. C. (2000). Income Differences in Persons Seeking Outpatient Treatment for Mental Disorders. *Archives of General Psychiatry*, 57(4), 383. <https://doi.org/10.1001/archpsyc.57.4.383>

254. Dauvrin, M., Lorant, V., Sandhu, S., Devillé, W., Dia, H., Dias, S., Gaddini, A., Ioannidis, E., Jensen, N. K., Kluge, U., Mertaniemi, R., Puigpinós, I. R. R., Sárváry, A., Strabmayr, C., Stankunas, M., Soares, J. J., Welbel, M., & Priebe, S. (2012). Health care for irregular migrants: pragmatism across Europe: a qualitative study. *BMC Res Notes*, 5, 99. <https://doi.org/10.1186/1756-0500-5-99>
255. Mistiaen, P., Cornelis, J., Detollenaere, J., Devriese, S., & Ricour, C. (2019). *Organisation des soins de santé mentale pour les adultes en Belgique – Synthèse* (318Bs). <https://doi.org/D/2019/10.273/49>.
256. Kohn, L., Obyn, C., Adriaenssens, J., Christiaens, W., Van Cauter, X., & Eyssen, M. (2016). *Modèle d'organisation et de financement des soins psychologiques*. <https://doi.org/10.57598/R265BS>
257. Stepanikova, I. (2012). Racial-Ethnic Biases, Time Pressure, and Medical Decisions. *Journal of Health and Social Behavior*, 53(3), 329-343. <https://doi.org/10.1177/0022146512445807>
258. Hanssens, L. G. M., Detollenaere, J. D. J., Van Pottelberge, A., Baert, S., & Willems, S. J. T. (2017). Perceived discrimination In Primary Healthcare in Europe: evidence from the cross-sectional QUALICOPC study. *Health & Social Care in the Community*, 25(2), 641-651. <https://doi.org/10.1111/hsc.12353>
259. FitzGerald, C., & Hurst, S. (2017). Implicit bias in healthcare professionals: a systematic review. *BMC medical ethics*, 18(1), 19-19. <https://doi.org/10.1186/s12910-017-0179-8>
260. Maina, I. W., Belton, T. D., Ginzberg, S., Singh, A., & Johnson, T. J. (2018). A decade of studying implicit racial/ethnic bias in healthcare providers using the implicit association test. *Social Science & Medicine*, 199, 219-229. <https://doi.org/10.1016/j.socscimed.2017.05.009>
261. Burgess, D., van Ryn, M., Dovidio, J., & Saha, S. (2007). Reducing racial bias among health care providers: lessons from social-cognitive psychology. *Journal of General Internal Medicine*, 22(6), 882-887. <https://doi.org/10.1007/s11606-007-0160-1>
262. Ahadinezhad, B., Khosravizadeh, O., Maleki, A., & Hashtroudi, A. (2021). Implicit racial bias among medical graduates and students by an IAT measure: a systematic review and meta-analysis. *Irish Journal of Medical Science (1971 -)*. <https://doi.org/10.1007/s11845-021-02756-3>

263. Hall, W. J., Chapman, M. V., Lee, K. M., Merino, Y. M., Thomas, T. W., Payne, B. K., Eng, E., Day, S. H., & Coyne-Beasley, T. (2015). Implicit Racial/Ethnic Bias Among Health Care Professionals and Its Influence on Health Care Outcomes: A Systematic Review. *American Journal of Public Health*, 105(12), e60-e76. <https://doi.org/10.2105/AJPH.2015.302903>
264. Karpinski, A., & Steinman, R. (2006). The Single Category Implicit Association Test as a measure of Implicit Social Cognition. *Journal of personality and social psychology*, 91, 16-32. <https://doi.org/10.1037/0022-3514.91.1.16>
265. Taylor, D. M., & Jaggi, V. (1974). Ethnocentrism and causal attribution in a south Indian context. *Journal of Cross-Cultural Psychology*, 5(2), 162-171. <https://doi.org/10.1177/002202217400500202>
266. Gaertner, S. L., Dovidio, J. F., & Bachman, B. A. (1996). Revisiting the contact hypothesis: The induction of a common ingroup identity. *International Journal of Intercultural Relations*, 20(3), 271-290. [https://doi.org/10.1016/0147-1767\(96\)00019-3](https://doi.org/10.1016/0147-1767(96)00019-3)
267. Masse, L., Salès-Wuillemin, É., Bromberg, M., Frigout, S., & Kohler, C. (2009). Biais perceptifs et attributions interethniques chez les enfants scolarisés en primaire [Perceptive Biases and Interethnic Attributions in Elementary School Children]. *Revue internationale de psychologie sociale*, 22(2), 5-42. <https://www.cairn.info/revue-internationale-de-psychologie-sociale-2009-2-page-5.htm>
268. Brewer, M. B. (1999). The Psychology of Prejudice: Ingroup Love and Outgroup Hate? *Journal of Social Issues*, 55(3), 429-444. <https://doi.org/10.1111/0022-4537.00126>
269. De Dreu, C. K. W., & Gross, J. (2019). Revisiting the form and function of conflict: Neurobiological, psychological, and cultural mechanisms for attack and defense within and between groups. *Behavioral and Brain Sciences*, 42, 1-76. <https://doi.org/10.1017/s0140525x18002170>
270. Balliet, D., Wu, J., & De Dreu, C. K. (2014). Ingroup favoritism in cooperation: a meta-analysis. *Psychol Bull*, 140(6), 1556-1581. <https://doi.org/10.1037/a0037737>
271. Bonvillain, J. F., & Huston, A. C. (2000). *Development of Racial Attitudes and Identity in Children A Review of the Literature*

- University of Kansas. Washington, D.C., The United States.
<https://eric.ed.gov/?id=ED449431>
272. Abbink, K., & Harris, D. (2019). In-group favouritism and out-group discrimination in naturally occurring groups. *PLOS ONE*, 14(9), e0221616. <https://doi.org/10.1371/journal.pone.0221616>
 273. Yzerbyt, V., & Demoulin, S. (2019). Intergroup relations. In (pp. 1024-1083). Presses universitaires de Grenoble. <https://doi.org/10.3917/pug.demou.2019.01>
 274. Gracia, J. J. E. (2010). Racism: Negative and Positive? *The Monist*, 93(2), 208-227. <http://www.jstor.org/stable/41418989>
 275. Villenave, B. (2006). La discrimination positive : une présentation. *Vie sociale*, 3(3), 39-48. <https://doi.org/10.3917/vsoc.063.0039>
 276. Bhui, K., Stansfeld, S., McKenzie, K., Karlsen, S., Nazroo, J., & Weich, S. (2005). Racial/Ethnic Discrimination and Common Mental Disorders Among Workers: Findings From the EMPIRIC Study of Ethnic Minority Groups in the United Kingdom. *American Journal of Public Health*, 95(3), 496-501. <https://doi.org/10.2105/ajph.2003.033274>
 277. Williams, D. R., Lawrence, J. A., Davis, B. A., & Vu, C. (2019). Understanding how discrimination can affect health. *Health Services Research*, 54(S2), 1374-1388. <https://doi.org/10.1111/1475-6773.13222>
 278. Clarke, J. (2018). *Explicit bias* (Vol. 113). North Western University Review. <https://scholarlycommons.law.northwestern.edu/nulr/vol113/iss3/2>
 279. Kerner, J., McCoy, B., Gilbo, N., Colavita, M., Kim, M., Zaval, L., & Rotter, M. (2020). Racial Disparity in the Clinical Risk Assessment. *Community Mental Health Journal*, 56(4), 586-591. <https://doi.org/10.1007/s10597-019-00516-3>
 280. Green, A. R., Carney, D. R., Pallin, D. J., Ngo, L. H., Raymond, K. L., Iezzoni, L. I., & Banaji, M. R. (2007). Implicit Bias among Physicians and its Prediction of Thrombolysis Decisions for Black and White Patients. *Journal of General Internal Medicine*, 22(9), 1231-1238. <https://doi.org/10.1007/s11606-007-0258-5>
 281. Rossen, B., Johnsen, K., Deladisma, A., Lind, S., & Lok, B. (2008). Virtual Humans Elicit Skin-Tone Bias Consistent with Real-World Skin-

- Tone Biases. In (pp. 237-244). Springer Berlin Heidelberg.
https://doi.org/10.1007/978-3-540-85483-8_24
282. Penner, L. A., Hagiwara, N., Eggly, S., Gaertner, S. L., Albrecht, T. L., & Dovidio, J. F. (2013). Racial Healthcare Disparities: A Social Psychological Analysis. *European review of social psychology*, 24(1), 70-122. <https://doi.org/10.1080/10463283.2013.840973>
 283. Byrne, A., & Tanesini, A. (2015). Instilling new habits: addressing implicit bias in healthcare professionals. *Advances in Health Sciences Education*, 20(5), 1255-1262. <https://doi.org/10.1007/s10459-015-9600-6>
 284. Gopal, D. P., Chetty, U., O'Donnell, P., Gajria, C., & Blackadder-Weinstein, J. (2021). Implicit bias in healthcare: clinical practice, research and decision making. *Future Healthcare Journal*, 8(1), 40-48. <https://doi.org/10.7861/fhj.2020-0233>
 285. Sabin, J. A., & Greenwald, A. G. (2012). The Influence of Implicit Bias on Treatment Recommendations for 4 Common Pediatric Conditions: Pain, Urinary Tract Infection, Attention Deficit Hyperactivity Disorder, and Asthma. *American Journal of Public Health*, 102(5), 988-995. <https://doi.org/10.2105/aiph.2011.300621>
 286. Nosek, B. A., Smyth, F. L., Hansen, J. J., Devos, T., Lindner, N. M., Ranganath, K. A., Smith, C. T., Olson, K. R., Chugh, D., Greenwald, A. G., & Banaji, M. R. (2007). Pervasiveness and correlates of implicit attitudes and stereotypes. *European review of social psychology*, 18, 36-88. <https://doi.org/10.1080/10463280701489053>
 287. Sabin, J. A., Nosek, B. A., Greenwald, A. G., & Rivara, F. P. (2009). Physicians' Implicit and Explicit Attitudes About Race by MD Race, Ethnicity, and Gender. *Journal of Health Care for the Poor and Underserved*, 20(3), 896-913. <https://doi.org/10.1353/hpu.0.0185>
 288. Sabin, J. A., Rivara, F. P., & Greenwald, A. G. (2008). Physician implicit attitudes and stereotypes about race and quality of medical care. *Medical Care*, 46(7), 678-685. <https://doi.org/10.1097/MLR.0b013e3181653d58>
 289. Blair, I. V. (2002). The Malleability of Automatic Stereotypes and Prejudice. *Personality and Social Psychology Review*, 6(3), 242-261. https://doi.org/10.1207/S15327957PSPR0603_8
 290. Khosla, N. N., Perry, S. P., Moss-Racusin, C. A., Burke, S. E., & Dovidio, J. F. (2018). A comparison of clinicians' racial biases in the United

- States and France. *Social Science & Medicine*, 206, 31-37. <https://doi.org/10.1016/j.socscimed.2018.03.044>
291. van Ryn, Burgess, D. J., Dovidio, J. F., Phelan, S. M., Saha, S., Malat, J., Griffin, J. M., Fu, S. S., & Perry, S. (2011). The impact of racism on clinician cognition, behavior, and clinical decision making [Article]. *Du Bois Review*, 8(1), 199-218. <https://doi.org/10.1017/S1742058X11000191>
 292. Vela, M. B., Erondy, A. I., Smith, N. A., Peek, M. E., Woodruff, J. N., & Chin, M. H. (2022). Eliminating Explicit and Implicit Biases in Health Care: Evidence and Research Needs. *Annual Review of Public Health*, 43(1), 477-501. <https://doi.org/10.1146/annurev-publhealth-052620-103528>
 293. Cooper, L. A., Roter, D. L., Carson, K. A., Beach, M. C., Sabin, J. A., Greenwald, A. G., & Inui, T. S. (2012). The Associations of Clinicians' Implicit Attitudes About Race With Medical Visit Communication and Patient Ratings of Interpersonal Care. *American Journal of Public Health*, 102(5), 979-987. <https://doi.org/10.2105/ajph.2011.300558>
 294. Dovidio, J. F., Kawakami, K., & Gaertner, S. L. (2002). Implicit and explicit prejudice and interracial interaction. *J Pers Soc Psychol*, 82(1), 62-68. <https://doi.org/10.1037//0022-3514.82.1.62>
 295. Zestcott, C. A., Blair, I. V., & Stone, J. (2016). Examining the presence, consequences, and reduction of implicit bias in health care: A narrative review. *Group Processes & Intergroup Relations*, 19(4), 528-542. <https://doi.org/10.1177/1368430216642029>
 296. van Ryn, M., Hardeman, R., Phelan, S. M., Burgess, D., Dovidio, J. F., Herrin, J., Burke, S. E., Nelson, D. B., Perry, S., Yeazel, M., & Przedworski, J. M. (2015). Medical School Experiences Associated with Change in Implicit Racial Bias Among 3547 Students: A Medical Student CHANGES Study Report. *Journal of General Internal Medicine*, 30(12), 1748-1756. <https://doi.org/10.1007/s11606-015-3447-7>
 297. Dasgupta, N., McGhee, D. E., Greenwald, A. G., & Banaji, M. R. (2000). Automatic Preference for White Americans: Eliminating the Familiarity Explanation. *Journal of Experimental Social Psychology*, 36(3), 316-328. <https://doi.org/10.1006/jesp.1999.1418>
 298. Devine, P. G., Forscher, P. S., Austin, A. J., & Cox, W. T. (2012). Long-term reduction in implicit race bias: A prejudice habit-breaking

- intervention. *J Exp Soc Psychol*, 48(6), 1267-1278.
<https://doi.org/10.1016/j.jesp.2012.06.003>
299. Tabayon Nabavi, R., & Bijandi, M. (2012). Bandura's Social Learning Theory & Social Cognitive Learning Theory.
 300. Fisher, J. D., Fisher, W. A., Amico, K. R., & Harman, J. J. (2006). An information-motivation-behavioral skills model of adherence to antiretroviral therapy. *Health Psychol*, 25(4), 462-473.
<https://doi.org/10.1037/0278-6133.25.4.462>
 301. Lebrecht, S., Pierce, L. J., Tarr, M. J., & Tanaka, J. W. (2009). Perceptual Other-Race Training Reduces Implicit Racial Bias. *PLOS ONE*, 4(1), e4215. <https://doi.org/10.1371/journal.pone.0004215>
 302. Pettigrew, T. F., Tropp, L. R., Wagner, U., & Christ, O. (2011). Recent advances in intergroup contact theory. *International Journal of Intercultural Relations*, 35(3), 271-280.
<https://doi.org/10.1016/j.ijintrel.2011.03.001>
 303. Aberson, C. L., Shoemaker, C., & Tomolillo, C. (2004). Implicit bias and contact: The role of interethnic friendships [Article]. *Journal of Social Psychology*, 144(3), 335-347.
<https://doi.org/10.3200/SOCP.144.3.335-347>
 304. Dovidio, J. F., Love, A., Schellhaas, F. M. H., & Hewstone, M. (2017). Reducing intergroup bias through intergroup contact: Twenty years of progress and future directions. *Group Processes & Intergroup Relations*, 20(5), 606-620.
<https://doi.org/10.1177/1368430217712052>
 305. Glasford, D. E., & Dovidio, J. F. (2011). E pluribus unum: Dual identity and minority group members' motivation to engage in contact, as well as social change. *Journal of Experimental Social Psychology*, 47(5), 1021-1024. <https://doi.org/10.1016/j.jesp.2011.03.021>
 306. Te Lindert, A., Korzilius, H. P. L. M., Stupar-Rutenfrans, S., & Van De Vijver, F. J. R. (2022). The role of perceived discrimination, intergroup contact and adoption in acculturation among four Dutch immigrant groups. *International Journal of Intercultural Relations*, 91, 297-310.
<https://doi.org/10.1016/j.ijintrel.2021.02.005>
 307. Paluck, E. L., & Green, D. P. (2009). Prejudice Reduction: What Works? A Review and Assessment of Research and Practice. *Annual Review of Psychology*, 60(1), 339-367.
<https://doi.org/10.1146/annurev.psych.60.110707.163607>

308. Cook, S. W. (1971). *The Effect of Unintended Interracial Contact Upon Racial Interaction and Attitude Change. Final Report.* <https://eric.ed.gov/?id=ED060153>
309. Turner, R. N., Crisp, R. J., & Lambert, E. (2007). Imagining Intergroup Contact Can Improve Intergroup Attitudes. *Group Processes & Intergroup Relations*, 10(4), 427-441. <https://doi.org/10.1177/1368430207081533>
310. Waqas, A., Malik, S., Fida, A., Abbas, N., Mian, N., Miryala, S., Amray, A. N., Shah, Z., & Naveed, S. (2020). Interventions to Reduce Stigma Related to Mental Illnesses in Educational Institutes: a Systematic Review. *Psychiatric Quarterly*, 91(3), 887-903. <https://doi.org/10.1007/s11126-020-09751-4>
311. Lai, C. K., Marini, M., Lehr, S. A., Cerruti, C., Shin, J.-E. L., Joy-Gaba, J. A., Ho, A. K., Teachman, B. A., Wojcik, S. P., Koleva, S. P., Frazier, R. S., Heiphetz, L., Chen, E. E., Turner, R. N., Haidt, J., Kesebir, S., Hawkins, C. B., Schaefer, H. S., Rubichi, S., . . . Nosek, B. A. (2014). Reducing implicit racial preferences: I. A comparative investigation of 17 interventions. *Journal of Experimental Psychology: General*, 143(4), 1765-1785. <https://doi.org/10.1037/a0036260>
312. Galinsky, A. D., & Moskowitz, G. B. (2000). Perspective-taking: Decreasing stereotype expression, stereotype accessibility, and in-group favoritism. *Journal of personality and social psychology*, 78(4), 708-724. <https://doi.org/10.1037/0022-3514.78.4.708>
313. Todd, A. R., Bodenhausen, G. V., Richeson, J. A., & Galinsky, A. D. (2011). Perspective taking combats automatic expressions of racial bias. *Journal of personality and social psychology*, 100(6), 1027-1042. <https://doi.org/10.1037/a0022308>
314. Drwecki, B. B., Moore, C. F., Ward, S. E., & Prkachin, K. M. (2011). Reducing racial disparities in pain treatment: the role of empathy and perspective-taking. *Pain*, 152(5), 1001-1006. <https://doi.org/10.1016/j.pain.2010.12.005>
315. Newheiser, A. K., & Olson, K. R. (2012). White and Black American Children's Implicit Intergroup Bias. *J Exp Soc Psychol*, 48(1), 264-270. <https://doi.org/10.1016/j.jesp.2011.08.011>
316. Lai, C. K., Skinner, A. L., Cooley, E., Murrar, S., Brauer, M., Devos, T., Calanchini, J., Xiao, Y. J., Pedram, C., Marshburn, C. K., Simon, S., Blanchar, J. C., Joy-Gaba, J. A., Conway, J., Redford, L., Klein, R. A.,

- Roussos, G., Schellhaas, F. M. H., Burns, M., . . . Nosek, B. A. (2016). Reducing implicit racial preferences: II. Intervention effectiveness across time. *Journal of Experimental Psychology: General*, 145(8), 1001-1016. <https://doi.org/10.1037/xge0000179>
317. Shen, M. J., Peterson, E. B., Costas-Muñiz, R., Hernandez, M. H., Jewell, S. T., Matsoukas, K., & Bylund, C. L. (2018). The Effects of Race and Racial Concordance on Patient-Physician Communication: A Systematic Review of the Literature. *Journal of Racial and Ethnic Health Disparities*, 5(1), 117-140. <https://doi.org/10.1007/s40615-017-0350-4>
 318. Cooper, L., Roter, D., Thornton, R., Ford, D., Steinwachs, D., & Powe, N. (2004). Patient-Centered Communication, Ratings of Care, and Concordance of Patient and Physician Race. *Annals of Internal Medicine*, 139, 907-915.
 319. Laveist, T. A., & Nuru-Jeter, A. (2002). Is doctor-patient race concordance associated with greater satisfaction with care? *J Health Soc Behav*, 43(3), 296-306.
 320. Saha, S., Arbelaez, J. J., & Cooper, L. A. (2003). Patient-Physician Relationships and Racial Disparities in the Quality of Health Care. *American Journal of Public Health*, 93(10), 1713-1719. <https://doi.org/10.2105/ajph.93.10.1713>
 321. Saha, S., Komaromy, M., Koepsell, T. D., & Bindman, A. B. (1999). Patient-Physician Racial Concordance and the Perceived Quality and Use of Health Care. *Archives of Internal Medicine*, 159(9), 997. <https://doi.org/10.1001/archinte.159.9.997>
 322. Sanchez-Perez, N., Fuentes, L. J., Jolliffe, D., & Gonzalez-Salinas, C. (2014). Assessing children's empathy through a Spanish adaptation of the Basic Empathy Scale: parent's and child's report forms. *Front Psychol*, 5, 1438. <https://doi.org/10.3389/fpsyg.2014.01438>
 323. Sweeney, C. F., Zinner, D., Rust, G., & Fryer, G. E. (2016). Race/Ethnicity and Health Care Communication: Does Patient-Provider Concordance Matter? *Medical Care*, 54(11). https://journals.lww.com/lww-medicalcare/fulltext/2016/11000/race_ethnicity_and_health_care_communication_does.7.aspx

324. Oliver, M. N., Goodwin, M. A., Gotler, R. S., Gregory, P. M., & Stange, K. C. (2001). Time use in clinical encounters: are African-American patients treated differently? *J Natl Med Assoc*, 93(10), 380-385.
325. Beach, M. C., Saha, S., Korthuis, P. T., Sharp, V., Cohn, J., Wilson, I. B., Eggly, S., Cooper, L. A., Roter, D., Sankar, A., & Moore, R. (2011). Patient-Provider Communication Differs for Black Compared to White HIV-Infected Patients. *AIDS and Behavior*, 15(4), 805-811. <https://doi.org/10.1007/s10461-009-9664-5>
326. Ghods, B. K., Roter, D. L., Ford, D. E., Larson, S., Arbelaez, J. J., & Cooper, L. A. (2008). Patient-Physician Communication in the Primary Care Visits of African Americans and Whites with Depression. *Journal of General Internal Medicine*, 23(5), 600-606. <https://doi.org/10.1007/s11606-008-0539-7>
327. Haque, A. (2010). Mental health concepts in Southeast Asia: diagnostic considerations and treatment implications. *Psychol Health Med*, 15(2), 127-134. <https://doi.org/10.1080/13548501003615266>
328. Kirmayer, L. J., Gomez-Carrillo, A., & Veissière, S. (2017). Culture and depression in global mental health: An ecosocial approach to the phenomenology of psychiatric disorders. *Social Science & Medicine*, 183, 163-168. <https://doi.org/10.1016/j.socscimed.2017.04.034>
329. American Psychiatric Association. (2013). *Diagnostic and Statistical Manual of Mental Disorders : DSM-5* AMA.
330. Zandi, T., Havenaar, J. M., Smits, M., Limburg-Okken, A. G., van Es, H., Cahn, W., Algra, A., Kahn, R. S., & van den Brink, W. (2010). First contact incidence of psychotic disorders among native Dutch and Moroccan immigrants in the Netherlands: influence of diagnostic bias. *Schizophr Res*, 119(1-3), 27-33. <https://doi.org/10.1016/j.schres.2010.02.1059>
331. Chang, A., Taylor, B., IB, M., Laifoo, Y., & Brown, A. (2010). Indigenous healthcare worker involvement for Indigenous adults and children with asthma. *Cochrane Database of Systematic Reviews*(5). <https://doi.org/10.1002/14651858.CD006344.pub3>.
332. Ishikawa, H., & Kiuchi, T. (2010). Health literacy and health communication. *BioPsychoSocial Medicine*, 4(1), 18. <https://doi.org/10.1186/1751-0759-4-18>

333. Nutbeam, D. (1998). Health Promotion Glossary. *Health Promotion International*, 13(4), 349-364. <https://doi.org/10.1093/heapro/13.4.349>
334. Cook, K. S. (2005). Networks, Norms, and Trust: The Social Psychology of Social Capital 2004 Cooley Mead Award Address. *Social Psychology Quarterly*, 68(1), 4-14. <http://www.jstor.org/stable/4148778>
335. Campos-Castillo, C., & Anthony, D. (2019). Situated Trust in a Physician: Patient Health Characteristics and Trust in Physician Confidentiality. *The Sociological Quarterly*, 60(4), 559-582. <https://doi.org/10.1080/00380253.2018.1547174>
336. Taylor, L. A., Nong, P., & Platt, J. (2023). Fifty Years of Trust Research in Health Care: A Synthetic Review. *The Milbank Quarterly*, 101(1), 126-178. <https://doi.org/10.1111/1468-0009.12598>
337. Thom, D. H., Wong, S. T., Guzman, D., Wu, A., Penko, J., Miaskowski, C., & Kushel, M. (2011). Physician Trust in the Patient: Development and Validation of a New Measure. *The Annals of Family Medicine*, 9(2), 148-154. <https://doi.org/10.1370/afm.1224>
338. Ball, L. E., Barnes, K. A., Crossland, L., Nicholson, C., & Jackson, C. (2018). Questionnaires that measure the quality of relationships between patients and primary care providers: a systematic review. *BMC health services research*, 18(1). <https://doi.org/10.1186/s12913-018-3687-4>
339. Fuertes, J. N., Mislowsky, A., Bennett, J., Paul, L., Gilbert, T. C., Fontan, G., & Boylan, L. S. (2007). The physician–patient working alliance. *Patient Education and Counseling*, 66(1), 29-36. <https://doi.org/10.1016/j.pec.2006.09.013>
340. Walker, K. L., Arnold, C. L., Miller-Day, M., & Webb, L. M. (2002). Investigating the Physician-Patient Relationship: Examining Emerging Themes. *Health Communication*, 14(1), 45-68. https://doi.org/10.1207/s15327027hc1401_3
341. Hall, J. A., Horgan, T. G., Stein, T. S., & Roter, D. L. (2002). Liking in the physician–patient relationship. *Patient Education and Counseling*, 48(1), 69-77. [https://doi.org/10.1016/S0738-3991\(02\)00071-X](https://doi.org/10.1016/S0738-3991(02)00071-X)
342. Bazargan, M., Cobb, S., & Assari, S. (2021). Discrimination and Medical Mistrust in a Racially and Ethnically Diverse Sample of

- California Adults. *The Annals of Family Medicine*, 19(1), 4-15.
<https://doi.org/10.1370/afm.2632>
343. Whaley, A. L. (2001). Cultural Mistrust and Mental Health Services for African Americans: A Review and Meta-Analysis. *The Counseling Psychologist*, 29(4), 513-531.
<https://doi.org/10.1177/0011000001294003>
 344. Appleby, L. (2008). Services for ethnic minorities: a question of trust. *Psychiatric Bulletin*, 32(11), 401-402.
<https://doi.org/10.1192/pb.bp.107.018895>
 345. Gopalkrishnan, N. (2018). Cultural Diversity and Mental Health: Considerations for Policy and Practice. *Front Public Health*, 6, 179.
<https://doi.org/10.3389/fpubh.2018.00179>
 346. Nong, P., Williamson, A., Anthony, D., Platt, J., & Kardia, S. (2022). Discrimination, trust, and withholding information from providers: Implications for missing data and inequity. *SSM - Population Health*, 18(101092), 1-7. <https://doi.org/10.1016/j.ssmph.2022.101092>
 347. Jensen, N. K., Norredam, M., Priebe, S., & Krasnik, A. (2013). How do general practitioners experience providing care to refugees with mental health problems? A qualitative study from Denmark. *BMC Family Practice*, 14(1), 17. <https://doi.org/10.1186/1471-2296-14-17>
 348. Gaya-Sancho, B., Vanceulebroeck, V., Kömürcü, N., Kalkan, I., Casa-Nova, A., Tambo-Lizalde, E., Coelho, M., Present, E., Öz, S. D., Coelho, T., Vermeiren, S., Kavala, A., Jerue, B. A., Sáez-Gutiérrez, B., & Antón-Solanas, I. (2021). Perception and experience of transcultural care of stakeholders and health service users with a migrant background: A qualitative study [Article]. *International Journal of Environmental Research and Public Health*, 18(10503), 1-28, Article 10503.
<https://doi.org/10.3390/ijerph181910503>
 349. Akbulut, N., & Razum, O. (2022). Why Othering should be considered in research on health inequalities: Theoretical perspectives and research needs. *SSM - Population Health*, 20, 101286.
<https://doi.org/10.1016/j.ssmph.2022.101286>
 350. Ang, W. (2017). Bridging culture and psychopathology in mental health care. *European Child & Adolescent Psychiatry*, 26(2), 263-266.
<https://doi.org/10.1007/s00787-016-0922-6>
 351. Bauldry, S., & Szaflarski, M. (2017). Immigrant-based Disparities in Mental Health Care Utilization. *Socius: Sociological Research for a*

- Dynamic World*, 3, 1-14.
<https://doi.org/10.1177/2378023116685718>
352. Sandhu, S., Bjerre, N. V., Dauvrin, M., Dias, S., Gaddini, A., Greacen, T., Ioannidis, E., Kluge, U., Jensen, N. K., Lamkaddem, M., Puigpinós I Riera, R., Kósa, Z., Wihlman, U., Stankunas, M., Straßmayr, C., Wahlbeck, K., Welbel, M., & Priebe, S. (2013). Experiences with treating immigrants: a qualitative study in mental health services across 16 European countries. *Social Psychiatry and Psychiatric Epidemiology*, 48(1), 105-116. <https://doi.org/10.1007/s00127-012-0528-3>
 353. Van Wieringen, J. C. M., Harmsen, J. A. M., & Bruijnzeels, M. A. (2002). Intercultural communication in general practice. *European Journal of Public Health*, 12(1), 63-68. <https://doi.org/10.1093/eurpub/12.1.63>
 354. Al Shamsi, H., Almutairi, A. G., Al Mashrafi, S., & Al Kalbani, T. (2020). Implications of Language Barriers for Healthcare: A Systematic Review. *Oman Med J*, 35(2), e122. <https://doi.org/10.5001/omj.2020.40>
 355. Wilk, A. S., & Platt, J. E. (2016). Measuring physicians' trust: A scoping review with implications for public policy. *Social Science & Medicine*, 165, 75-81. <https://doi.org/10.1016/j.socscimed.2016.07.039>
 356. Rogers, W. A. (2002). Is there a moral duty for doctors to trust patients? *Journal of Medical Ethics*, 28(2), 77-80. <https://doi.org/10.1136/jme.28.2.77>
 357. Moskowitz, D., Thom, D. H., Guzman, D., Penko, J., Miaskowski, C., & Kushel, M. (2011). Is Primary Care Providers' Trust in Socially Marginalized Patients Affected by Race? *Journal of General Internal Medicine*, 26(8), 846-851. <https://doi.org/10.1007/s11606-011-1672-2>
 358. Martínez-Radl, F. B., Hinton, D. E., & Stangier, U. (2023). Susto as a cultural conceptualization of distress: Existing research and aspects to consider for future investigations. *Transcultural Psychiatry*, 60(4), 1-13. <https://doi.org/10.1177/13634615231163986>
 359. Degrie, L., Gastmans, C., Mahieu, L., Dierckx De Casterlé, B., & Denier, Y. (2017). How do ethnic minority patients experience the intercultural care encounter in hospitals? A systematic review of

- qualitative research. *BMC medical ethics*, 18(1).
<https://doi.org/10.1186/s12910-016-0163-8>
360. McQuaid, E. L., & Landier, W. (2018). Cultural Issues in Medication Adherence: Disparities and Directions. *Journal of General Internal Medicine*, 33(2), 200-206. <https://doi.org/10.1007/s11606-017-4199-3>
 361. Sarwar, F., Crijns, T., Ramtin, S., Ring, D., Reichel, L., & Fatehi, A. (2022). Patient symptom exaggeration is associated with communication effectiveness and trust. *PEC Innovation*, 1(100050), 1-8. <https://doi.org/10.1016/j.pecinn.2022.100050>
 362. Zimmerman, M., Morgan, T. A., & Stanton, K. (2018). The severity of psychiatric disorders. *World Psychiatry*, 17(3), 258-275. <https://doi.org/10.1002/wps.20569>
 363. Flores, G. (2005). The impact of medical interpreter services on the quality of health care: a systematic review. *Med Care Res Rev*, 62(3), 255-299. <https://doi.org/10.1177/1077558705275416>
 364. Schouten, B. C., Meeuwesen, L., & Harmsen, H. A. M. (2005). The impact of an intervention in intercultural communication on doctor–patient interaction in The Netherlands. *Patient Education and Counseling*, 58(3), 288-295. <https://doi.org/10.1016/j.pec.2005.06.005>
 365. Fatahi, N., Hellström, M., Skott, C., & Mattsson, B. (2008). General practitioners' views on consultations with interpreters: A triad situation with complex issues. *Scandinavian Journal of Primary Health Care*, 26(1), 40-45. <https://doi.org/10.1080/02813430701877633>
 366. Robertshaw, L., Dhesi, S., & Jones, L. L. (2017). Challenges and facilitators for health professionals providing primary healthcare for refugees and asylum seekers in high-income countries: a systematic review and thematic synthesis of qualitative research. *BMJ Open*, 7(8), e015981. <https://doi.org/10.1136/bmjopen-2017-015981>
 367. Kosny, A., MacEachen, E., Lifshen, M., & Smith, P. (2014). Another Person in the Room: Using Interpreters During Interviews With Immigrant Workers. *Qual Health Res*, 24(6), 837-845. <https://doi.org/10.1177/1049732314535666>
 368. Alizadeh, S., & Chavan, M. (2016). Cultural competence dimensions and outcomes: a systematic review of the literature. *Health & Social*

- Care in the Community, 24(6), e117-e130.
<https://doi.org/10.1111/hsc.12293>
369. Kirmayer, L. J. (2012). Rethinking cultural competence. *Transcultural Psychiatry*, 49(2), 149-164.
<https://doi.org/10.1177/1363461512444673>
 370. Qureshi, A., Collazos, F., Ramos, M., & Casas, M. (2008). Cultural competency training in psychiatry. *European Psychiatry*, 23, 49-58.
[https://doi.org/10.1016/S0924-9338\(08\)70062-2](https://doi.org/10.1016/S0924-9338(08)70062-2)
 371. Chu, W., Wippold, G., & Becker, K. D. (2022). A systematic review of cultural competence trainings for mental health providers. *Professional Psychology: Research and Practice*, 53(4), 362-371.
<https://doi.org/10.1037/pro0000469>
 372. Wohler, Y., & Dantas, J. A. (2017). Barriers Accessing Mental Health Services Among Culturally and Linguistically Diverse (CALD) Immigrant Women in Australia: Policy Implications. *Journal of Immigrant and Minority Health*, 19(3), 697-701.
<https://doi.org/10.1007/s10903-016-0402-6>
 373. Zandi, T., Havenaar, J. M., Laan, W., Kahn, R. S., & van den Brink, W. (2016). Effects of a culturally sensitive assessment on symptom profiles in native Dutch and Moroccan patients with a first psychosis referral. *Transcultural Psychiatry*, 53(1), 45-59.
<https://doi.org/10.1177/1363461515577288>
 374. Saha, S., Beach, M. C., & Cooper, L. A. (2008). Patient Centeredness, Cultural Competence and Healthcare Quality. *Journal of the National Medical Association*, 100(11), 1275-1285.
[https://doi.org/10.1016/S0027-9684\(15\)31505-4](https://doi.org/10.1016/S0027-9684(15)31505-4)
 375. Dauvrin, M., & Lorant, V. (2015). Leadership and cultural competence of healthcare professionals: a social network analysis. *Nurs Res*, 64(3), 200-210. <https://doi.org/10.1097/nnr.0000000000000092>
 376. Kales, H. C., Neighbors, H. W., Valenstein, M., Blow, F. C., McCarthy, J. F., Ignacio, R. V., Taylor, K. K., Gillon, L., & Mellow, A. M. (2005). Effect of Race and Sex on Primary Care Physicians' Diagnosis and Treatment of Late-Life Depression. *Journal of the American Geriatrics Society*, 53(5), 777-784. <https://doi.org/10.1111/j.1532-5415.2005.53255.x>

377. Dauvrin, M., & Lorant, V. (2014). Adaptation of health care for migrants: whose responsibility? *BMC health services research*, 14, 294-294. <https://doi.org/10.1186/1472-6963-14-294>
378. Bhui, K., Warfa, N., Edonya, P., McKenzie, K., & Bhugra, D. (2007). Cultural competence in mental health care: A review of model evaluations [Article]. *BMC health services research*, 7(15), 1-10, Article 15. <https://doi.org/10.1186/1472-6963-7-15>
379. Hudelson, P., Junod Perron, N., & Perneger, T. V. (2010). Measuring Physicians' and Medical Students' Attitudes Toward Caring for Immigrant Patients. *Evaluation & the Health Professions*, 33(4), 452-472. <https://doi.org/10.1177/0163278710370157>
380. Sorensen, J., Norredam, M., Suurmond, J., Carter-Pokras, O., Garcia-Ramirez, M., & Krasnik, A. (2019). Need for ensuring cultural competence in medical programmes of European universities. *BMC Medical Education*, 19(21), 1-8. <https://doi.org/10.1186/s12909-018-1449-y>
381. Serneels, G., Villanueva O'Driscoll, J., Imeraj, L., Vanfraussen, K., & Lampo, A. (2017). An Intervention Supporting the Mental Health of Children with a Refugee Background. *Issues in Mental Health Nursing*, 38(4), 327-336. <https://doi.org/10.1080/01612840.2017.1285969>
382. Betancourt, J., Green, A., Carrillo, J. Emilio, & Owusu, A.-F., II. (2003). Defining Cultural Competence: A Practical Framework for Addressing Racial/Ethnic Disparities in Health and Health Care. *Public Health Reports*, 118(4), 293-302. <http://www.jstor.org/stable/4598855>
383. 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. <https://doi.org/10.1046/j.1365-2648.2001.01929.x>
384. 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(1_suppl), 181-217. <https://doi.org/10.1177/1077558700057001s09>
385. Govere, L., & Govere, E. M. (2016). How Effective is Cultural Competence Training of Healthcare Providers on Improving Patient Satisfaction of Minority Groups? A Systematic Review of Literature.

- Worldviews on Evidence-Based Nursing*, 13(6), 402-410.
<https://doi.org/10.1111/wvn.12176>
386. Pottie, K., Batista, R., Mayhew, M., Mota, L., & Grant, K. (2014). Improving delivery of primary care for vulnerable migrants: Delphi consensus to prioritize innovative practice strategies. *Canadian family physician Medecin de famille canadien*, 60(1), e32-40.
 387. Dauvrin, M., & Lorant, V. (2014). Culturally competent interventions in Type 2 diabetes mellitus management: an equity-oriented literature review. *Ethnicity & Health*, 19(6), 579-600.
<https://doi.org/10.1080/13557858.2013.857763>
 388. Schulson, L. B., & Anderson, T. S. (2022). National Estimates of Professional Interpreter Use in the Ambulatory Setting. *Journal of General Internal Medicine*, 37(2), 472-474.
<https://doi.org/10.1007/s11606-020-06336-6>
 389. Diamond, L. C., Schenker, Y., Curry, L., Bradley, E. H., & Fernandez, A. (2009). Getting By: Underuse of Interpreters by Resident Physicians. *Journal of General Internal Medicine*, 24(2), 256-262.
<https://doi.org/10.1007/s11606-008-0875-7>
 390. Khoong, E. C., & Fernandez, A. (2021). Addressing Gaps in Interpreter Use: Time for Implementation Science Informed Multi-Level Interventions. *Journal of General Internal Medicine*, 36(11), 3532-3536. <https://doi.org/10.1007/s11606-021-06823-4>
 391. Jaeger, F. N., Pellaud, N., Laville, B., & Klausner, P. (2019). Barriers to and solutions for addressing insufficient professional interpreter use in primary healthcare. *BMC health services research*, 19(1).
<https://doi.org/10.1186/s12913-019-4628-6>
 392. The Victorian Foundation for Survivors of Torture. (2012). *Exploring Barriers and Facilitators to the Use of Qualified Interpreters in Health - Discussion Paper*. Foundation House.
 393. Ministry of Finance. (2018). *Danish Health Act no. 191 of 28/02/2018*.
<https://www.regionh.dk/english/Healthcare-Services/patient-rights/Pages/Interpreter-assistance.aspx>
 394. Harpelund, L., Nielsen, S. S., & Krasnik, A. (2012). Self-perceived need for interpreter among immigrants in Denmark. *Scand J Public Health*, 40(5), 457-465. <https://doi.org/10.1177/1403494812454234>
 395. Ministère des Affaires Sociales, & Santé Publique et Environnement. (2002). *Loi relative aux droits du patient [Law on the rights of the*

- patients]. Belgian Parliament. <https://www.liguedh.be/la-convention-europeenne-des-droits-de-lhomme/>
396. World Health Organization (WHO). (2018). *Embedding a cultural contexts of health approach across the WHO European Region*. Regional Office for Europe. <https://apps.who.int/iris/handle/10665/312315>
 397. Verrept, H., & Coune, I. (2016). *Guide for Intercultural Mediator in Health Care*. Brussels: Safety of the Food Chain and Environment, Federal Public Service Retrieved from https://www.health.belgium.be/sites/default/files/uploads/fields/pshealth_theme_file/2017_11_14_guide_english_0.pdf
 398. Verrept, H. (2019). *What are the roles of intercultural mediators in health care and what is the evidence on their contributions and effectiveness in improving accessibility and quality of care for refugees and migrants in the WHO European Region?* (64). <https://www.ncbi.nlm.nih.gov/books/NBK550145/>
 399. Train Intercultural Mediators for a Multicultural Europe. (2015). *Description of 10 good practices in intercultural mediation for immigrants throughout europe and suggestions for transfer*.
 400. Alvarez, K., Cervantes, P. E., Nelson, K. L., Seag, D. E. M., Horwitz, S. M., & Hoagwood, K. E. (2022). Review: Structural Racism, Children's Mental Health Service Systems, and Recommendations for Policy and Practice Change. *J Am Acad Child Adolesc Psychiatry*, 61(9), 1087-1105. <https://doi.org/10.1016/j.jaac.2021.12.006>
 401. Haslam, N. (2006). Dehumanization: An Integrative Review. *Personality and social psychology review : an official journal of the Society for Personality and Social Psychology, Inc*, 10, 252-264. https://doi.org/10.1207/s15327957pspr1003_4
 402. Pérez-Fuentes, M. D. C., Herera-Peco, I., Molero Jurado, M. D. M., Oropesa Ruiz, N. F., Ayuso-Murillo, D., & Gázquez Linares, J. J. (2019). The Development and Validation of the Healthcare Professional Humanization Scale (HUMAS) for Nursing. *International Journal of Environmental Research and Public Health*, 16(20), 3999. <https://doi.org/10.3390/ijerph16203999>
 403. Busch, I. M., Moretti, F., Travaini, G., Wu, A. W., & Rimondini, M. (2019). Humanization of care: Key elements identified by patients, caregivers, and healthcare providers. A systematic review. *The*

- Patient: Patient-Centered Outcomes Research*, 12, 461-474.
<https://doi.org/10.1007/s40271-019-00370-1>
404. Nora, C. R. D., & Junges, J. R. (2013). Humanization policy in primary health care: a systematic review. 47(6), 1-15.
<https://doi.org/10.1590/s0034-8910.2013047004581>
 405. Calegari, R. D. C., Massarollo, M. C. K. B., & Santos, M. J. D. (2015). Humanização da assistência à saúde na percepção de enfermeiros e médicos de um hospital privado. *Revista da Escola de Enfermagem da USP*, 49(spe2), 42-47. <https://doi.org/10.1590/s0080-623420150000800006>
 406. Starfield, B. (2011). Is Patient-Centered Care the Same As Person-Focused Care? *The Permanente Journal*, 15(2).
<https://doi.org/10.7812/tpp/10-148>
 407. Chew-Graham, C. A. (2002). Managing depression in primary care: another example of the inverse care law? *Family Practice*, 19(6), 632-637. <https://doi.org/10.1093/fampra/19.6.632>
 408. National Committee for Quality Assurance (NCQA). (2023). *Patient-Centered Medical Home*, . <https://www.ncqa.org/programs/health-care-providers-practices/patient-centered-medical-home-pcmh/>
 409. Grant, R., & Greene, D. (2012). The health care home model: primary health care meeting public health goals. *Am J Public Health*, 102(6), 1096-1103. <https://doi.org/10.2105/ajph.2011.300397>
 410. World Health Organization (WHO). (2017). *Human rights and health*. . <https://www.who.int/news-room/fact-sheets/detail/human-rights-and-health>
 411. World Health Organization (WHO). (2020). *Migration and health: enhancing intercultural competence and diversity sensitivity*. <https://iris.who.int/bitstream/handle/10665/332186/9789289056632-eng.pdf?sequence=1&isAllowed=y>
 412. Metzl, J. M., Petty, J., & Olowojoba, O. V. (2018). Using a structural competency framework to teach structural racism in pre-health education. *Social Science & Medicine*, 199, 189-201.
<https://doi.org/10.1016/j.socscimed.2017.06.029>
 413. Dias, D., Zhu, C. J., & Samaratunge, R. (2020). Examining the role of cultural exposure in improving intercultural competence: implications for HRM practices in multicultural organizations. *The*

- International Journal of Human Resource Management*, 31(11), 1359-1378. <https://doi.org/10.1080/09585192.2017.1406389>
414. Reeve, J., Lynch, T., Lloyd-Williams, M., & Payne, S. (2012). From personal challenge to technical fix: the risks of depersonalised care. *Health & Social Care in the Community*, 20(2), 145-154. <https://doi.org/10.1111/j.1365-2524.2011.01026.x>
 415. Capozza, D., Falvo, R., Boin, J., & Colledani, D. (2016). Dehumanization in medical contexts: An expanding research field. *TPM-Testing, Psychometrics, Methodology in Applied Psychology*, 23(4), 545-559. <https://doi.org/10.4473/TPM23.4.8>
 416. Cheraghi, M. A., Manookian, A., & Nasrabadi, A. N. (2014). Human dignity in religion-embedded cross-cultural nursing. *Nursing Ethics*, 21(8), 916-928. <https://doi.org/10.1177/0969733014521095>
 417. Costello, K., & Hodson, G. (2009). Exploring the roots of dehumanization: The role of animal—human similarity in promoting immigrant humanization. *Group Processes & Intergroup Relations*, 13(1), 3-22. <https://doi.org/10.1177/1368430209347725>
 418. The clinical application of the biopsychosocial model. (1980). *American Journal of Psychiatry*, 137(5), 535-544. <https://doi.org/10.1176/ajp.137.5.535>
 419. Schulman, K., Berlin, J., Harless, W., Kerner, J., Sistrunk, S., Gersh, B., Dubé, R., Taleghani, C., Burke, J., Williams, S., Eisenberg, J., & Escarce, J. (1999). The Effect of Race and Sex on Physicians' Recommendations for Cardiac Catherization. *The New England journal of medicine*, 340, 618-626. <https://doi.org/10.1056/NEJM199902253400806>
 420. Moreira, M. A., Lustosa, A. M., Dutra, F., Barros Ede, O., Batista, J. B., & Duarte, M. C. (2015). Public humanization policies: integrative literature review. *Cien Saude Colet*, 20(10), 3231-3242. <https://doi.org/10.1590/1413-812320152010.10462014>
 421. Batson, C. D., & Ahmad, N. Y. (2009). Using Empathy to Improve Intergroup Attitudes and Relations. *Social Issues and Policy Review*, 3(1), 141-177. <https://doi.org/10.1111/j.1751-2409.2009.01013.x>
 422. Johnston, O., Kumar, S., Kendall, K., Peveler, R., Gabbay, J., & Kendrick, T. (2007). Qualitative study of depression management in primary care: GP and patient goals, and the value of listening. *British*

- Journal of General Practice*, 57(544), 1-14.
<https://doi.org/10.3399/096016407782318026>
423. Davidsen, A. S., & Fosgerau, C. F. (2014). General practitioners' and psychiatrists' responses to emotional disclosures in patients with depression. *Patient Educ Couns*, 95(1), 61-68.
<https://doi.org/10.1016/j.pec.2013.12.018>
 424. Gask, L. (2013). Educating Family Physicians to Recognize and Manage Depression: Where are We Now? *The Canadian Journal of Psychiatry*, 58(8), 449-455.
<https://doi.org/10.1177/070674371305800803>
 425. Niewiadomski, C., & De Villiers, G. (2002). *Souci et soin de soi*. Harmattan.
 426. Soumet-Leman, C. (2011). Impacts d'un travail d'histoire de vie sur la prise en charge d'un patient psychotique. . *Le Journal des psychologues*, 6(n°289), 26-30.
 427. Park, S.-C., & Kim, Y.-K. (2019). An Integrated Bio-psycho-social Approach to Psychiatric Disorders. In *Artificial Intelligence, Precision Medicine, and Other Paradigm Shifts* (pp. 331-340). Frontiers in Psychiatry. https://doi.org/10.1007/978-981-32-9721-0_17
 428. Bar-On, D., & Kassem, F. (2004). Storytelling as a Way to Work Through Intractable Conflicts: The German-Jewish Experience and Its Relevance to the Palestinian-Israeli Context. *Journal of Social Issues*, 60(2), 289-306. <https://doi.org/10.1111/j.0022-4537.2004.00112.x>
 429. Manney, P. (2008). Empathy in the Time of Technology: How Storytelling is the Key to Empathy. *Journal of Evolution & Technology*, 19(1), 51-61. <http://ietpress.org/v19/manney.htm>
 430. Czaja, E. (2013). *Revolutionary Emotion: Empathy and Equality in the United States* Princeton University. Princeton, NJ.
<http://arks.princeton.edu/ark:/88435/dsp0108612n64x>
 431. Guimond, S., Dambrun, M., Michinov, N., & Duarte, S. (2003). Does Social Dominance Generate Prejudice? Integrating Individual and Contextual Determinants of Intergroup Cognitions. *Journal of personality and social psychology*, 84, 697-721.
<https://doi.org/10.1037/0022-3514.84.4.697>
 432. Kaplan, R. M., & Frosch, D. L. (2005). Decision making in medicine and health care [Review]. *Annual Review of Clinical Psychology*, 1(52), 525-556. <https://doi.org/10.1146/annurev.clinpsy.1.102803.144118>

433. Gray, M. J., Litz, B. T., Hsu, J. L., & Lombardo, T. W. (2004). Psychometric Properties of the Life Events Checklist. *Assessment*, 11(4), 330-341. <https://doi.org/10.1177/1073191104269954>
434. Lauber, C., Nordt, C., Falcato, L., & Rössler, W. (2004). Factors Influencing Social Distance Toward People with Mental Illness. *Community Mental Health Journal*, 40, 265-274. <https://doi.org/10.1023/B:COMH.0000026999.87728.2d>
435. Holmes, T. H., & Rahe, R. H. (1967). The Social Readjustment Rating Scale. *Journal of Psychosomatic Research*, 11(2), 213-218. [https://doi.org/10.1016/0022-3999\(67\)90010-4](https://doi.org/10.1016/0022-3999(67)90010-4)
436. Buccheri, T., Musaad, S., Bost, K. K., & Fiese, B. H. (2018). Development and assessment of stressful life events subscales – A preliminary analysis. *Journal of Affective Disorders*, 226, 178-187. <https://doi.org/https://doi.org/10.1016/j.jad.2017.09.046>
437. Lee, H., Andrasfay, T., Riley, A., Wu, Q., & Crimmins, E. (2022). Do social determinants of health explain racial/ethnic disparities in COVID-19 infection? *Social Science & Medicine*, 306, 115098. <https://doi.org/https://doi.org/10.1016/j.socscimed.2022.115098>
438. Clement, S., Schauman, O., Graham, T., Maggioni, F., Evans-Lacko, S., Bezborodovs, N., Morgan, C., Rüsch, N., Brown, J. S. L., & Thornicroft, G. (2015). What is the impact of mental health-related stigma on help-seeking? A systematic review of quantitative and qualitative studies. *Psychological Medicine*, 45(1), 11-27. <https://doi.org/10.1017/s0033291714000129>
439. Giacco, D., Matanov, A., & Priebe, S. (2014). Providing mental healthcare to immigrants: current challenges and new strategies. *Current Opinion in Psychiatry*, 27(4), 282-288. <https://doi.org/10.1097/yco.0000000000000065>
440. Lindert, J., Schouler-Ocak, M., Heinz, A., & Priebe, S. (2008). Mental health, health care utilisation of migrants in Europe [Article]. *European Psychiatry*, 23(SUPPL. 1), 14-20. [https://doi.org/10.1016/S0924-9338\(08\)70057-9](https://doi.org/10.1016/S0924-9338(08)70057-9)
441. Ciftci, Y., & Blane, D. N. (2022). Improving GP registration and access for migrant health. *Br J Gen Pract*, 72(715), 56-57. <https://doi.org/10.3399/bjgp22X718301>
442. Bakhtiari, E., Olafsdottir, S., & Beckfield, J. (2018). Institutions, Incorporation, and Inequality: The Case of Minority Health

- Inequalities in Europe. *Journal of Health and Social Behavior*, 59(2), 248-267. <https://doi.org/10.1177/0022146518759069>
443. Statbel. (2021). *Nouvelle statistique sur la diversité selon l'origine en Belgique*.
<https://statbel.fgov.be/fr/themes/population/origine#news>
 444. De Kock, C., Blomme, E., & Antoine, J. (2020). Non-national clients in Belgian substance use treatment. *DRUGS AND ALCOHOL TODAY*, 20(2), 157–171. <https://doi.org/10.1108/DAT-12-2019-0049>
 445. Demarest S, Berete F, Charafeddine R, & J., V. d. H. (2019). *Enquête de santé 2018: Méthodologie*.
https://www.sciensano.be/sites/default/files/method_fr_2018.pdf
 446. Van Roy, K., Vyncke, V., Piccardi, C., De Maesschalck, S., & Willems, S. (2018). *Diversiteit in gezondheid en gezondheidszorggebruik : analyse van de data uit de Belgische gezondheidsenquête*. Kom op tegen Kanker.
 447. Demarest, S., Berete, F., Braekman, E., Charafeddine, R., Drieskens, S., Gisle, L., & Van der Heyden, J. (2018). *Study protocol HIS 2018*.
https://www.sciensano.be/sites/default/files/protocol_his_2018.pdf
 448. Van Oyen H, Tafforeau J, Hermans H, Quataert P, Schiettecatte E, & L, L. (1997). The Belgian health interview survey. *Archives of public health = Archives belges de sante publique*, 55, 1-13.
https://www.sciensano.be/sites/default/files/aphfull55_1_13_1.pdf
 449. Farkas, L. (2017). *Legal frameworks and practice in the EU member states*. European Commission.
<https://ec.europa.eu/newsroom/just/redirection/document/45792>
 450. Law on the protection of privacy with regard to the processing of personal data., (2016).
 451. Dujardin, C., Lorant, V., & Thomas, I. (2014). Self-assessed health of elderly people in Brussels: does the built environment matter? *Health & Place*, 27, 59-67.
<https://doi.org/10.1016/j.healthplace.2014.01.003>
 452. Hankins, M. (2008). The reliability of the twelve-item general health questionnaire (GHQ-12) under realistic assumptions. *BMC Public Health*, 8(1), 355. <https://doi.org/10.1186/1471-2458-8-355>

453. Evans-Lacko, S., Knapp, M., McCrone, P., Thornicroft, G., & Mojtabai, R. (2013). The Mental Health Consequences of the Recession: Economic Hardship and Employment of People with Mental Health Problems in 27 European Countries. *PLOS ONE*, 8(7), e69792. <https://doi.org/10.1371/journal.pone.0069792>
454. Pierce, M., Hope, H. F., Kolade, A., Gellatly, J., Osam, C. S., Perchard, R., Kosidou, K., Dalman, C., Morgan, V., Di Prinzio, P., & Abel, K. M. (2020). Effects of parental mental illness on children's physical health: systematic review and meta-analysis. *The British Journal of Psychiatry*, 217(1), 354-363. <https://doi.org/10.1192/bjp.2019.216>
455. De Kock, C. (2021). Migration and ethnicity related indicators in European drug treatment demand (TDI) registries. *Journal of Ethnicity in Substance Abuse*, 20(3), 444-470. <https://doi.org/10.1080/15332640.2019.1664962>
456. National Institutes of Health (NIH). (2022). *Race and National Origin*. <https://www.nih.gov.nih-style-guide/race-national-origin#:~:text=General%20guidance&text=Capitalize%20all%20references%20to%20race,Instead%2C%20indicate%20the%20specific%20groups>
457. Scobie, S., Spencer, J., & Raleigh, V. (2020). *Ethnicity coding in English health service datasets*. https://www.nuffieldtrust.org.uk/sites/default/files/2021-06/1622731816_nuffield-trust-ethnicity-coding-web.pdf
458. Horvat, L., Horey, D., Romios, P., & Kis-Rigo, J. (2014). Cultural competence education for health professionals. *Cochrane Database of Systematic Reviews*(5), 1-84. <https://doi.org/10.1002/14651858.CD009405.pub2>
459. Blair, I. V., Havranek, E. P., Price, D. W., Hanratty, R., Fairclough, D. L., Farley, T., Hirsh, H. K., & Steiner, J. F. (2013). Assessment of biases against Latinos and African Americans among primary care providers and community members. *American Journal of Public Health*, 103(1), 92-98. <https://doi.org/10.2105/AJPH.2012.300812>
460. Shavers, V. L., Fagan, P., Jones, D., Klein, W. M. P., Boyington, J., Moten, C., & Rorie, E. (2012). The State of Research on Racial/Ethnic Discrimination in The Receipt of Health Care. *American Journal of Public Health*, 102(5), 953-966. <https://doi.org/10.2105/ajph.2012.300773>

461. European Commission. (2020). *Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions: Action plan on Integration and Inclusion 2021-2027*. Brussels. Retrieved from https://ec.europa.eu/home-affairs/sites/homeaffairs/files/pdf/action_plan_on_integration_and_inclusion_2021-2027.pdf
462. Reus-Pons, M., Vandenheede, H., Janssen, F., & Kibele, E. U. B. (2016). Differences in mortality between groups of older migrants and older non-migrants in Belgium, 2001-09 [Article]. *European Journal of Public Health*, 26(6), 992-1000. <https://doi.org/10.1093/eurpub/ckw076>
463. Razai, M. S., Kankam, H. K. N., Majeed, A., Esmail, A., & Williams, D. R. (2021). Mitigating ethnic disparities in covid-19 and beyond. *BMJ*, 372(m4921), 1-5. <https://doi.org/10.1136/bmj.m4921>
464. Nosek, B. A., Greenwald, A. G., & Banaji, M. R. (2005). Understanding and Using the Implicit Association Test: II. Method Variables and Construct Validity. *Personality and Social Psychology Bulletin*, 31(2), 166-180. <https://doi.org/10.1177/0146167204271418>
465. Nosek, B. A., Banaji, M. R., & Greenwald, A. G. (2002). Harvesting implicit group attitudes and beliefs from a demonstration web site. *Group Dynamics : Theory, Research, and Practice*, 6(1), 101-115. <https://doi.org/10.1037/1089-2699.6.1.101>
466. Londono Tobon, A., Flores, J. M., Taylor, J. H., Johnson, I., Landeros-Weisenberger, A., Aboiralor, O., Avila-Quintero, V. J., & Bloch, M. H. (2021). Racial Implicit Associations in Psychiatric Diagnosis, Treatment, and Compliance Expectations. *Academic Psychiatry*, 45(1), 23-33. <https://doi.org/10.1007/s40596-020-01370-2>
467. The Organization for Economic Cooperation and Development (OECD). (2015). *Health at a Glance*. . https://doi.org/10.1787/health_glance-2015-en
468. Andreoni, J., & Vesterlund, L. (2001). Which is the Fair Sex? Gender Differences in Altruism. *The Quarterly Journal of Economics*, 116(1), 293-312. <https://doi.org/10.1162/003355301556419>
469. French, D. (2018). Unconscious bias training a study in junk science. *Arkansas Democrat Gazette*.

- <https://www.arkansasonline.com/news/2018/apr/29/unconscious-bias-training-a-study-in-jun/>
470. Greenwald, A. G., Poehlman, T. A., Uhlmann, E. L., & Banaji, M. R. (2009). Understanding and using the Implicit Association Test: III. Meta-analysis of predictive validity. *Journal of personality and social psychology*, 97(1), 17-41. <https://doi.org/10.1037/a0015575>
 471. Ruben, M., & Saks, N. S. (2020). Addressing Implicit Bias in First-Year Medical Students: a Longitudinal, Multidisciplinary Training Program [Article]. *Medical Science Educator*, 30(4), 1419-1426. <https://doi.org/10.1007/s40670-020-01047-3>
 472. Aambø, A. K. (2020). Ethics in cross-cultural encounters: A medical concern? [Article]. *Medical Humanities*, 46(1), 22-30. <https://doi.org/10.1136/medhum-2018-011546>
 473. Duveau, C., Demoulin, S., Dauvrin, M., Lepièce, B., & Lorant, V. (2022). Implicit and explicit ethnic biases in multicultural primary care: the case of trainee general practitioners. *BMC Primary Care*, 23(1). <https://doi.org/10.1186/s12875-022-01698-8>
 474. Ceuterick, M., Bracke, P., Van Canegem, T., & Buffel, V. (2020). Assessing Provider Bias in General Practitioners' Assessment and Referral of Depressive Patients with Different Migration Backgrounds: Methodological Insights on the Use of a Video-Vignette Study. *Community Mental Health Journal*, 56, 1457-1472. <https://doi.org/10.1007/s10597-020-00590-y>
 475. Doorslaer, E. V., Koolman, X., & Jones, A. M. (2004). Explaining income-related inequalities in doctor utilisation in Europe. *Health Economics*, 13(7), 629-647. <https://doi.org/10.1002/hec.919>
 476. Bower, P., & Gilbody, S. (2005). Managing common mental health disorders in primary care: conceptual models and evidence base. *BMJ*, 330(7495), 839-842. <https://doi.org/10.1136/bmj.330.7495.839>
 477. Anjara, S. G., Bonetto, C., Ganguli, P., Setiyawati, D., Mahendradhata, Y., Yoga, B. H., Trisnantoro, L., Brayne, C., & Van Bortel, T. (2019). Can General Practitioners manage mental disorders in primary care? A partially randomised, pragmatic, cluster trial. *PLOS ONE*, 14(11), e0224724. <https://doi.org/10.1371/journal.pone.0224724>
 478. Kite, M. E., & Whitley, B. E. (2016). *Psychology of Prejudice and Discrimination* (T. Francis, Ed. Third ed.). Routledge.

479. Mittal, D., Owen, R. R., Ounpraseuth, S., Chekuri, L., Drummond, K. L., Jennings, M. B., Smith, J. L., Sullivan, J. G., & Corrigan, P. W. (2020). Targeting stigma of mental illness among primary care providers: Findings from a pilot feasibility study. *Psychiatry Research*, 284(112641), 1-6. <https://doi.org/10.1016/j.psychres.2019.112641>
480. Schunck, R., Reiss, K., & Razum, O. (2015). Pathways between perceived discrimination and health among immigrants: evidence from a large national panel survey in Germany. *Ethnicity & Health*, 20(5), 493-510. <https://doi.org/10.1080/13557858.2014.932756>
481. Poma, P. A. (2017). Race/Ethnicity Concordance Between Patients and Physicians. *Journal of the National Medical Association*, 109(1), 6-8. <https://doi.org/10.1016/j.jnma.2016.12.002>
482. Statbel. (2022). *Diversité selon l'origine en Belgique* Retrieved 16th June from <https://statbel.fgov.be/fr/nouvelles/diversite-selon-lorigine-en-belgique-0>
483. Clark, R., Anderson, N. B., Clark, V. R., & Williams, D. R. (1999). Racism as a stressor for African Americans. A biopsychosocial model. *Am Psychol*, 54(10), 805-816. <https://doi.org/10.1037//0003-066x.54.10.805>
484. Afshari, R., & Bhopal, R. S. (2010). Ethnicity has overtaken race in medical science: MEDLINE-based comparison of trends in the USA and the rest of the world, 1965-2005. *International Journal of Epidemiology*, 39(6), 1682-1683. <https://doi.org/10.1093/ije/dyp382>
485. Assari, S. (2018). Interaction Between Race and Gender and Effect on Implicit Racial Bias Against Blacks. *International Journal of Epidemiologic Research*, 5(2), 43-49. <https://doi.org/10.15171/ijer.2018.10>
486. Pugh, M., Perrin, P. B., Rybarczyk, B., & Tan, J. (2021). Racism, Mental Health, Healthcare Provider Trust, and Medication Adherence Among Black Patients in Safety-Net Primary Care. *Journal of Clinical Psychology in Medical Settings*, 28(1), 181-190. <https://doi.org/10.1007/s10880-020-09702-y>
487. Scott, A., Shiell, A., & King, M. (1996). Is general practitioner decision making associated with patient socio-economic status? *Social Science & Medicine*, 42(1), 35-46. [https://doi.org/10.1016/0277-9536\(95\)00063-1](https://doi.org/10.1016/0277-9536(95)00063-1)

488. van Ryn, M., Burgess, D., Malat, J., & Griffin, J. (2006). Physicians' Perceptions of Patients' Social and Behavioral Characteristics and Race Disparities in Treatment Recommendations for Men With Coronary Artery Disease. *American Journal of Public Health*, 96(2), 351-357. <https://doi.org/10.2105/ajph.2004.041806>
489. Duveau, C., Wets, C., Delaruelle, K., Demoulin, S., Dauvrin, M., Lepièce, B., Ceuterick, M., De Maesschalck, S., Bracke, P., & Lorant, V. (2023). Unintentional Discrimination Against Patients with a Migration Background by General Practitioners in Mental Health Management: An Experimental Study. *Administration and Policy in Mental Health and Mental Health Services Research*, 50, 450-460. <https://doi.org/10.1007/s10488-023-01250-5>
490. Burgess, D. J., Crowley-Matoka, M., Phelan, S., Dovidio, J. F., Kerns, R., Roth, C., Saha, S., & van Ryn, M. (2008). Patient race and physicians' decisions to prescribe opioids for chronic low back pain. *Social Science & Medicine*, 67(11), 1852-1860. <https://doi.org/10.1016/j.socscimed.2008.09.009>
491. Kaldenberg, D. O., & Becker, B. W. (1992). Workload and psychological strain: A test of the French, Rodgers, and Cobb hypothesis. *Journal of Organizational Behavior*, 13(6), 617-624. <https://doi.org/10.1002/job.4030130607>
492. Delaruelle, K., Buffel, V., Van Canegem, T., Bracke, P., & Ceuterick, M. (2021). Mind the Gate: General Practitioner's Attitudes Towards Depressed Patients with Diverse Migration Backgrounds. *Community Mental Health Journal*, 58, 499-511. <https://doi.org/10.1007/s10597-021-00844-3>
493. Balsa, A. I., McGuire, T. G., & Meredith, L. S. (2005). Testing for Statistical Discrimination in Health Care. *Health Services Research*, 40(1), 227-252. <https://doi.org/10.1111/j.1475-6773.2005.00351.x>
494. Ashton, C. M., Haidet, P., Paterniti, D. A., Collins, T. C., Gordon, H. S., O'Malley, K., Petersen, L. A., Sharf, B. F., Suarez-Almazor, M. E., Wray, N. P., & Street, R. L. (2003). Racial and ethnic disparities in the use of health services. *Journal of General Internal Medicine*, 18(2), 146-152. <https://doi.org/10.1046/j.1525-1497.2003.20532.x>
495. Album, D., Johannessen, L. E. F., & Rasmussen, E. B. (2017). Stability and change in disease prestige: A comparative analysis of three surveys spanning a quarter of a century. *Social Science &*

- Medicine*, 180, 45-51.
<https://doi.org/10.1016/j.socscimed.2017.03.020>
496. De Maesschalck, S., Deveugele, M., & Willems, S. (2011). Language, culture and emotions: exploring ethnic minority patients' emotional expressions in primary healthcare consultations. *Patient Educ Couns*, 84(3), 406-412. <https://doi.org/10.1016/j.pec.2011.04.021>
 497. PlanCad. (2019). *Médecins généralistes 2004-2016 Cellule Planification des professions de soins de santé, Service Professions des soins de santé et pratique professionnelle*.
 498. Wu, M.-J., Zhao, K., & Fils-Aime, F. (2022). Response rates of online surveys in published research: A meta-analysis. *Computers in Human Behavior Reports*, 7(100206), 1-11. <https://doi.org/10.1016/j.chbr.2022.100206>
 499. Taylor, T., & Scott, A. (2019). Do Physicians Prefer to Complete Online or Mail Surveys? Findings From a National Longitudinal Survey. *Evaluation & the Health Professions*, 42(1), 41-70. <https://doi.org/10.1177/0163278718807744>
 500. Evans, S. C., Roberts, M. C., Keeley, J. W., Blossom, J. B., Amaro, C. M., Garcia, A. M., Stough, C. O., Canter, K. S., Robles, R., & Reed, G. M. (2015). Vignette methodologies for studying clinicians' decision-making: Validity, utility, and application in ICD-11 field studies. *International Journal of Clinical and Health Psychology*, 15(2), 160-170. <https://doi.org/10.1016/j.ijchp.2014.12.001>
 501. Mindlis, I., & Boffetta, P. (2017). Mood disorders in first- and second-generation immigrants: Systematic review and meta-analysis. *British Journal of Psychiatry*, 210(3), 182-189. <https://doi.org/10.1192/bjp.bp.116.181107>
 502. Kodish, T., Lau, A. S., Gong-Guy, E., Congdon, E., Arnaudova, I., Schmidt, M., Shoemaker, L., & Craske, M. G. (2022). Enhancing Racial/Ethnic Equity in College Student Mental Health Through Innovative Screening and Treatment. *Administration and Policy in Mental Health and Mental Health Services Research*, 49(2), 267-282. <https://doi.org/10.1007/s10488-021-01163-1>
 503. Shannon, P. J., Vinson, G. A., Cook, T. L., & Lennon, E. (2016). Characteristics of Successful and Unsuccessful Mental Health Referrals of Refugees. *Administration and Policy in Mental Health*

- and *Mental Health Services Research*, 43(4), 555-568. <https://doi.org/10.1007/s10488-015-0639-8>
504. Gopal, D. P., Waqar, S., Silverwood, V., Mulla, E., & Dada, O. (2020). Race and racism: are we too comfortable with comfort? *BJGP Open*, 4(5), 1-4. <https://doi.org/10.3399/bjgpo.2020.0143>
 505. Centola, D., Guilbeault, D., Sarkar, U., Khoong, E., & Zhang, J. (2021). The reduction of race and gender bias in clinical treatment recommendations using clinician peer networks in an experimental setting. *Nature Communications*, 12(1), 1-10. <https://doi.org/10.1038/s41467-021-26905-5>
 506. Attanasio, L., & Kozhimannil, K. B. (2015). Patient-reported Communication Quality and Perceived Discrimination in Maternity Care. *Medical Care*, 53(10), 863-871. <https://doi.org/10.1097/mlr.0000000000000411>
 507. Swenson, S. L., Buell, S., Zettler, P., White, M., Ruston, D. C., & Lo, B. (2004). Patient-centered communication. *Journal of General Internal Medicine*, 19(11), 1069-1079. <https://doi.org/10.1111/j.1525-1497.2004.30384.x>
 508. Janssen, S. M. J., Hearne, T. L., & Takarangi, M. K. T. (2015). The relation between self-reported PTSD and depression symptoms and the psychological distance of positive and negative events. *Journal of Behavior Therapy and Experimental Psychiatry*, 48, 177-184. <https://doi.org/10.1016/j.jbtep.2015.04.002>
 509. Trawalter, S., & Hoffman, K. M. (2015). Got Pain? Racial Bias in Perceptions of Pain. *Social and Personality Psychology Compass*, 9(3), 146-157. <https://doi.org/10.1111/spc3.12161>
 510. Livingston, J. D., & Boyd, J. E. (2010). Correlates and consequences of internalized stigma for people living with mental illness: A systematic review and meta-analysis. *Social Science & Medicine*, 71(12), 2150-2161. <https://doi.org/10.1016/j.socscimed.2010.09.030>
 511. Kieseppä, V., Markkula, N., Taipale, H., Holm, M., Jokela, M., Suvisaari, J., Tanskanen, A., Gissler, M., & Lehti, V. (2022). Antidepressant use among immigrants with depressive disorder living in Finland: A register-based study. *Journal of Affective Disorders*, 299, 528-535. <https://doi.org/10.1016/j.jad.2021.12.071>

512. Declercq, T., Callens, J., Cloetens, H., De Lepeleire, J., Habraken, H., & van den Ameele, H. (2017). *Recommandations de Bonne Pratique : La dépression chez l'adulte*.
513. Anthierens, S., Habraken, H., Petrovic, M., & Christiaens, T. (2007). The lesser evil? Initiating a benzodiazepine prescription in general practice. *Scandinavian Journal of Primary Health Care*, 25(4), 214-219. <https://doi.org/10.1080/02813430701726335>
514. Teunissen, E., Van Bavel, E., Van Den Driessen Mareeuw, F., Macfarlane, A., Van Weel-Baumgarten, E., Van Den Muijsenbergh, M., & Van Weel, C. (2015). Mental health problems of undocumented migrants in the Netherlands: A qualitative exploration of recognition, recording, and treatment by general practitioners. *Scandinavian Journal of Primary Health Care*, 33(2), 82-90. <https://doi.org/10.3109/02813432.2015.1041830>
515. Williams, D. R. (2018). Stress and the Mental Health of Populations of Color: Advancing Our Understanding of Race-related Stressors. *Journal of Health and Social Behavior*, 59(4), 466-485. <https://doi.org/10.1177/0022146518814251>
516. Williams, D. R., & Williams-Morris, R. (2000). Racism and mental health: The African American experience [Article]. *Ethnicity and Health*, 5(3-4), 243-268. <https://doi.org/10.1080/713667453>
517. Assari, S., Lapeyrouse, L. M., & Neighbors, H. W. (2018). Income and Self-Rated Mental Health: Diminished Returns for High Income Black Americans. *Behavioral Sciences*, 8(5), 50. <https://www.mdpi.com/2076-328X/8/5/50>
518. Singhammer, J., & Bancila, D. (2011). Associations Between Stressful Events and Self-Reported Mental Health Problems Among Non-Western Immigrants in Denmark. *Journal of Immigrant and Minority Health*, 13(2), 371-378. <https://doi.org/10.1007/s10903-009-9281-4>
519. Hoell, A., Kourmpeli, E., Salize, H. J., Heinz, A., Padberg, F., Habel, U., Kamp-Becker, I., Höhne, E., Böge, K., & Bajbouj, M. (2021). Prevalence of depressive symptoms and symptoms of post-traumatic stress disorder among newly arrived refugees and asylum seekers in Germany: systematic review and meta-analysis. *BJPsych Open*, 7(3), 1-12. <https://doi.org/10.1192/bjo.2021.54>
520. Shaw, C. M., Creed, F., Tomenson, B., Riste, L., Cruickshank, J. K., & Rait, G. (1999). Prevalence of anxiety and depressive illness and help

- seeking behaviour in African Caribbeans and white Europeans: two phase general population survey Commentary: Counting heads may mask cultural and social factors. *BMJ*, 318(7179), 302-306. <https://doi.org/10.1136/bmj.318.7179.302>
521. Anjara, S. G., Bonetto, C., Van Bortel, T., & Brayne, C. (2020). Using the GHQ-12 to screen for mental health problems among primary care patients: psychometrics and practical considerations. *International Journal of Mental Health Systems*, 14(1). <https://doi.org/10.1186/s13033-020-00397-0>
 522. Romppel, M., Hinz, A., Finck, C., Young, J., Brähler, E., & Glaesmer, H. (2017). Cross-cultural measurement invariance of the General Health Questionnaire-12 in a German and a Colombian population sample. *International Journal of Methods in Psychiatric Research*, 26(4), e1532. <https://doi.org/10.1002/mpr.1532>
 523. Mathur, R., Rentsch, C. T., Venkataraman, K., Fatumo, S., Jobe, M., Angkurawaranon, C., Ong, S. E., Wong, A. Y. S., & Siddiqui, M. K. (2022). How do we collect good-quality data on race and ethnicity and address the trust gap? *The Lancet*, 400(10368), 2028-2030. [https://doi.org/10.1016/s0140-6736\(22\)02490-4](https://doi.org/10.1016/s0140-6736(22)02490-4)
 524. European Commission. (2021). *Guidance note on the collection and use of equality data based on racial or ethnic origin* (High Level Group on Non-discrimination, Equality and Diversity, Issue. <https://doi.org/10.2838/06180>
 525. Mathur, R., Rentsch, C. T., Morton, C. E., Hulme, W. J., Schultze, A., MacKenna, B., Eggo, R. M., Bhaskaran, K., Wong, A. Y. S., Williamson, E. J., Forbes, H., Wing, K., McDonald, H. I., Bates, C., Bacon, S., Walker, A. J., Evans, D., Inglesby, P., Mehrkar, A., . . . Goldacre, B. (2021). Ethnic differences in SARS-CoV-2 infection and COVID-19-related hospitalisation, intensive care unit admission, and death in 17 million adults in England: an observational cohort study using the OpenSAFELY platform. *The Lancet*, 397(10286), 1711-1724. [https://doi.org/10.1016/S0140-6736\(21\)00634-6](https://doi.org/10.1016/S0140-6736(21)00634-6)
 526. Farhaan, S. V., Juan Carlos, N., Jennifer, R. M., Osman, K., Alan, P., Stephen, L. J., Faisal, M., Sostman, H. D., Robert, P., Julia, D. A., Bitá, A. K., & Khurram, N. (2020). Racial and ethnic disparities in SARS-CoV-2 pandemic: analysis of a COVID-19 observational registry for a

- diverse US metropolitan population. *BMJ Open*, 10(8), e039849. <https://doi.org/10.1136/bmjopen-2020-039849>
527. Roura, M., LeMaster, J. W., Hannigan, A., Pappan, A., McCarthy, S., Nurse, D., Villarroel, N., & MacFarlane, A. (2021). 'If relevant, yes; if not, no': General practitioner (GP) users and GP perceptions about asking ethnicity questions in Irish general practice: A qualitative analysis using Normalization Process Theory. *PLOS ONE*, 16(5), e0251192. <https://doi.org/10.1371/journal.pone.0251192>
 528. Routen, A., Akbari, A., Banerjee, A., Katikireddi, S. V., Mathur, R., McKee, M., Nafilyan, V., & Khunti, K. (2022). Strategies to record and use ethnicity information in routine health data. *Nat Med*, 28(7), 1338-1342. <https://doi.org/10.1038/s41591-022-01842-y>
 529. Dauvrin, M. (2013). *Cultural Competence in Health Care: Challenging Inequalities, Involving Institutions* Université catholique de Louvain. Brussels, Belgium.
 530. Payne, B. K., & Hannay, J. W. (2021). Implicit bias reflects systemic racism. *Trends in Cognitive Sciences*, 25(11), 927-936. <https://doi.org/10.1016/j.tics.2021.08.001>
 531. Hirsh, A. T., Hollingshead, N. A., Ashburn-Nardo, L., & Kroenke, K. (2015). The Interaction of Patient Race, Provider Bias, and Clinical Ambiguity on Pain Management Decisions. *The Journal of Pain*, 16(6), 558-568. <https://doi.org/10.1016/j.jpain.2015.03.003>
 532. Haider, A. H., Sexton, J., Sriram, N., Cooper, L. A., Efron, D. T., Swoboda, S., Villegas, C. V., Haut, E. R., Bonds, M., Pronovost, P. J., Lipsett, P. A., Freischlag, J. A., & Cornwell, E. E. (2011). Association of Unconscious Race and Social Class Bias With Vignette-Based Clinical Assessments by Medical Students. *JAMA*, 306(9), 942-951. <https://doi.org/10.1001/jama.2011.1248>
 533. Sabin, J. A., Rivara, F. P., & Greenwald, A. G. (2008). Physician Implicit Attitudes and Stereotypes About Race and Quality of Medical Care. *Medical Care*, 46(7). https://journals.lww.com/lww-medicalcare/Fulltext/2008/07000/Physician_Implicit_Attitudes_and_Stereotypes_About.6.aspx
 534. Oswald, F. L., Mitchell, G., Blanton, H., Jaccard, J., & Tetlock, P. E. (2013). Predicting ethnic and racial discrimination: A meta-analysis of IAT criterion studies. *Journal of personality and social psychology*, 105(2), 171-192. <https://doi.org/10.1037/a0032734>

535. Meissner, F., Grigutsch, L. A., Koranyi, N., Müller, F., & Rothermund, K. (2019). Predicting Behavior With Implicit Measures: Disillusioning Findings, Reasonable Explanations, and Sophisticated Solutions. *Front Psychol*, 10, 2483. <https://doi.org/10.3389/fpsyg.2019.02483>
536. Hausmann, L. R. M., Myaskovsky, L., Niyonkuru, C., Oyster, M. L., Switzer, G. E., Burkitt, K. H., Fine, M. J., Gao, S., & Boninger, M. L. (2015). Examining implicit bias of physicians who care for individuals with spinal cord injury: A pilot study and future directions. *The Journal of Spinal Cord Medicine*, 38(1), 102-110. <https://doi.org/10.1179/2045772313y.0000000184>
537. Nakash, O., & Saguy, T. (2015). Social Identities of Clients and Therapists During the Mental Health Intake Predict Diagnostic Accuracy. *Social Psychological and Personality Science*, 6(6), 710-717. <https://doi.org/10.1177/1948550615576003>
538. Peabody, J. W., Luck, J., Glassman, P., Dresselhaus, T. R., & Lee, M. (2000). Comparison of vignettes, standardized patients, and chart abstraction: a prospective validation study of 3 methods for measuring quality. *JAMA*, 283(13), 1715-1722. <https://doi.org/10.1001/jama.283.13.1715>
539. Center for Substance Abuse Treatment (US). (2014). *Trauma-Informed Care in Behavioral Health Services: DSM-5 Diagnostic Criteria for PTSD*. Substance Abuse and Mental Health Services Administration. https://www.ncbi.nlm.nih.gov/books/NBK207191/box/part1_ch3_box16/
540. Akincigil, A., Olfson, M., Siegel, M., Zurlo, K. A., Walkup, J. T., & Crystal, S. (2012). Racial and Ethnic Disparities in Depression Care in Community-Dwelling Elderly in the United States. *American Journal of Public Health*, 102(2), 319-328. <https://doi.org/10.2105/ajph.2011.300349>
541. Termorshuizen, F., Selten, J.-P., & Heerdink, E. R. (2017). Dispensing of psychotropic medication among 400,000 immigrants in The Netherlands. *Social Psychiatry and Psychiatric Epidemiology*, 52(8), 963-977. <https://doi.org/10.1007/s00127-017-1405-x>
542. Lehti, V., Salama, E., Niemelä, S., Tanskanen, A., Gissler, M., Suvisaari, J., & Taipale, H. (2022). Use of benzodiazepine and related drugs in migrants and Finnish-born persons: a nationwide register-based

- study. *Scandinavian Journal of Public Health*, 1-9. <https://doi.org/10.1177/14034948221112470>
543. Ceuterick, M., Van Ngoc, P., Bracke, P., & Scholtes, B. (2023). From prescribing dilemma to knowledge in practice: The ontological politics of benzodiazepines and Z-drugs. *Social Science & Medicine*, 339, 116358. <https://doi.org/10.1016/j.socscimed.2023.116358>
 544. Gabbay, J., & May, A. L. (2004). Evidence based guidelines or collectively constructed “mindlines?” Ethnographic study of knowledge management in primary care. *BMJ*, 329(7473), 1013. <https://doi.org/10.1136/bmj.329.7473.1013>
 545. Ahaddour, C., & Broeckaert, B. (2018). “For Every Illness There is a Cure”: Attitudes and Beliefs of Moroccan Muslim Women Regarding Health, Illness and Medicine. *Journal of Religion and Health*, 57(4), 1285-1303. <https://doi.org/10.1007/s10943-017-0466-1>
 546. Apers, H., Nöstlinger, C., & Van Praag, L. (2023). Explanatory Models of (Mental) Health Among Sub-Saharan African Migrants in Belgium: A Qualitative Study of Healthcare Professionals’ Perceptions and Practices. *Culture, Medicine, and Psychiatry*, 47(4), 878-897. <https://doi.org/10.1007/s11013-023-09816-6>
 547. Burnett-Zeigler, I., Schuette, S., Victorson, D., & Wisner, K. L. (2016). Mind–Body Approaches to Treating Mental Health Symptoms Among Disadvantaged Populations: A Comprehensive Review. *The Journal of Alternative and Complementary Medicine*, 22(2), 115-124. <https://doi.org/10.1089/acm.2015.0038>
 548. Bhui, K., & Bhugra, D. (2002). Explanatory models for mental distress: Implications for clinical practice and research. *British Journal of Psychiatry*, 181(1), 6-7. <https://doi.org/10.1192/bjp.181.1.6>
 549. Wittchen, H.-U., Mühlig, S., & Beesdo, K. (2003). Mental disorders in primary care. *Dialogues in Clinical Neuroscience*, 5(2), 115-128. <https://doi.org/10.31887/dcns.2003.5.2/huwittchen>
 550. Hoffman, K. M., Trawalter, S., Axt, J. R., & Oliver, M. N. (2016). Racial bias in pain assessment and treatment recommendations, and false beliefs about biological differences between blacks and whites. *Proceedings of the National Academy of Sciences*, 113(16), 4296-4301. <https://doi.org/10.1073/pnas.1516047113>

551. Garrard, J., Rolnick, S. J., Nitz, N. M., Luepke, L., Jackson, J., Fischer, L. R., Leibson, C., Bland, P. C., Heinrich, R., & Waller, L. A. (1998). Clinical Detection of Depression Among Community-Based Elderly People With Self-Reported Symptoms of Depression. *The Journals of Gerontology: Series A*, 53A(2), M92-M101. <https://doi.org/10.1093/gerona/53A.2.M92>
552. Banazak, D. A. (1996). Late-life depression in primary care. *Journal of General Internal Medicine*, 11(3), 163-167. <https://doi.org/10.1007/bf02600269>
553. Mullan, E., Katona, P., D'Ath, P., & Katona, C. (1994). Screening, detection and management of depression in elderly primary care attenders. II: Detection and fitness for treatment: a case record study. *Fam Pract*, 11(3), 267-270. <https://doi.org/10.1093/fampra/11.3.267>
554. Tamayo-Sarver, J., Dawson, N., Hinze, S., Cydulka, R., Wigton, R., Albert, J., Ibrahim, S., & Baker, D. (2003). The Effect of Race/Ethnicity and Desirable Social Characteristics on Physicians' Decisions to Prescribe Opioid Analgesics. *ACAD EMERG MED*, 10(11). [https://doi.org/10.1197/S1069-6563\(03\)00494-9](https://doi.org/10.1197/S1069-6563(03)00494-9)
555. Bartfield, J. M., Salluzzo, R. F., Raccio-Robak, N., Funk, D. L., & Verdile, V. P. (1997). Physician and patient factors influencing the treatment of low back pain. *Pain*, 73(2), 209-211. [https://doi.org/10.1016/s0304-3959\(97\)00107-3](https://doi.org/10.1016/s0304-3959(97)00107-3)
556. Rambachan, A., Noorulhuda, H., Fang, M. C., Bazinski, M., Manuel, S., Hubbard, C., & Prasad, P. (2023). Pain Assessment Disparities by Race, Ethnicity, and Language in Adult Hospitalized Patients. *Pain Management Nursing*, 24(4), 393-399. <https://doi.org/10.1016/j.pmn.2023.03.012>
557. Schneider, I. K., Konijn, E. A., Righetti, F., & Rusbult, C. E. (2011). A healthy dose of trust: The relationship between interpersonal trust and health. *Personal Relationships*, 18(4), 668-676. <https://doi.org/10.1111/j.1475-6811.2010.01338.x>
558. Blair, I. V., Steiner, J. F., Fairclough, D. L., Hanratty, R., Price, D. W., Hirsh, H. K., Wright, L. A., Bronsert, M., Karimkhani, E., Magid, D. J., & Havranek, E. P. (2013). Clinicians' Implicit Ethnic/Racial Bias and Perceptions of Care Among Black and Latino Patients. *The Annals of Family Medicine*, 11(1), 43-52. <https://doi.org/10.1370/afm.1442>

559. Ciechanowski, P. S., Katon, W. J., & Russo, J. E. (2005). The association of depression and perceptions of interpersonal relationships in patients with diabetes. *Journal of Psychosomatic Research*, 58(2), 139-144. <https://doi.org/10.1016/j.jpsychores.2004.07.009>
560. Kim, S.-S., Chung, Y., Perry, M. J., Kawachi, I., & Subramanian, S. V. (2012). Association between Interpersonal Trust, Reciprocity, and Depression in South Korea: A Prospective Analysis. *PLOS ONE*, 7(1), e30602. <https://doi.org/10.1371/journal.pone.0030602>
561. Wu, Q., Jin, Z., & Wang, P. (2022). The Relationship Between the Physician-Patient Relationship, Physician Empathy, and Patient Trust. *Journal of General Internal Medicine*, 37(6), 1388-1393. <https://doi.org/10.1007/s11606-021-07008-9>
562. González De León, B., Del Pino-Sedeño, T., Serrano-Pérez, P., Rodríguez Álvarez, C., Bejarano-Quisoboni, D., & Trujillo-Martín, M. M. (2022). Effectiveness of interventions to improve medication adherence in adults with depressive disorders: a meta-analysis. *BMC Psychiatry*, 22(1), 1-21. <https://doi.org/10.1186/s12888-022-04120-w>
563. Ho, S. C., Chong, H. Y., Chaiyakunapruk, N., Tangiisuran, B., & Jacob, S. A. (2016). Clinical and economic impact of non-adherence to antidepressants in major depressive disorder: A systematic review. *Journal of Affective Disorders*, 193, 1-10. <https://doi.org/10.1016/j.jad.2015.12.029>
564. Brandenberger, J., Tylleskär, T., Sontag, K., Peterhans, B., & Ritz, N. (2019). A systematic literature review of reported challenges in health care delivery to migrants and refugees in high-income countries - the 3C model. *BMC Public Health*, 19(1). <https://doi.org/10.1186/s12889-019-7049-x>
565. Wittchen, H.-U., & Pittrow, D. (2002). Prevalence, recognition and management of depression in primary care in Germany: the Depression 2000 study. *Human Psychopharmacology: Clinical and Experimental*, 17(S1), S1-S11. <https://doi.org/10.1002/hup.398>
566. Nasser, L. (2012). Do some cultures have their own ways of going mad ? *The Boston Globe*, 1-6. <https://www.bostonglobe.com/ideas/2012/01/08/some-cultures-have-their-own-ways-going-mad/fSuwCngcHbTpMZdBzSFagl/story.html>

567. Escobar, J. I., Díaz-Martínez, A., & Gara, M. (2006). Idiopathic Physical Symptoms: A Common Manifestation of Psychiatric Disorders in Primary Care. *CNS Spectrums*, 11(3), 201-210. <https://doi.org/10.1017/s1092852900014371>
568. Capozza, D., Falvo, R., & Di Bernardo, G. A. (2022). Priming attachment security and outgroup humanization: The mediation role of intergroup emotions. *PLOS ONE*, 17(3), e0265714. <https://doi.org/10.1371/journal.pone.0265714>
569. Zick, A., Küpper, B., & Hövermann, A. (2011). *Intolerance, prejudice and discrimination - A European Report*. <https://library.fes.de/pdf-files/do/07908-20110311.pdf>
570. Sljivic, H., Sutherland, I., Stannard, C., Ioppolo, C., & Morrisby, C. (2022). Changing attitudes towards older adults: Eliciting empathy through digital storytelling. *Gerontology & Geriatrics Education*, 43(3), 360-373. <https://doi.org/10.1080/02701960.2021.1900838>
571. Sheringham, J., Kuhn, I., & Burt, J. (2021). The use of experimental vignette studies to identify drivers of variations in the delivery of health care: a scoping review. *BMC Med Res Methodol*, 21(1), 81. <https://doi.org/10.1186/s12874-021-01247-4>
572. Peabody, J., Luck, J., Glassman, P., Jain, S., Hansen, J., Spell, M., & Lee, M. (2004). Measuring the Quality of Physician Practice by Using Clinical Vignettes: A Prospective Validation Study. *Annals of Internal Medicine*, 141(10), 771-780. <https://doi.org/10.7326/0003-4819-141-10-200411160-00008>
573. Shah, R., Edgar, D. F., & Evans, B. J. W. (2010). A comparison of standardised patients, record abstraction and clinical vignettes for the purpose of measuring clinical practice. *Ophthalmic and Physiological Optics*, 30(3), 209-224. <https://doi.org/10.1111/j.1475-1313.2010.00713.x>
574. Siminoff, L. A., Rogers, H. L., Waller, A. C., Harris-Haywood, S., Esptein, R. M., Carrio, F. B., Gliva-Mcconvey, G., & Longo, D. R. (2011). The advantages and challenges of unannounced standardized patient methodology to assess healthcare communication. *Patient Education and Counseling*, 82(3), 318-324. <https://doi.org/10.1016/j.pec.2011.01.021>
575. Zozus, M. N., Young, L. W., Simon, A. E., Garza, M., Lawrence, L., Ounpraseuth, S. T., Bledsoe, M., Newman-Norlund, S., Jarvis, J. D.,

- McNally, M., Harris, K. R., McCulloh, R., Aikman, R., Cox, S., Malloch, L., Walden, A., Snowden, J., Chedjieu, I. M., Wicker, C. A., . . . Devlin, L. A. (2019). Training as an Intervention to Decrease Medical Record Abstraction Errors Multicenter Studies. *Stud Health Technol Inform*, 257, 526-539.
576. Arber, S., McKinlay, J., Adams, A., Marceau, L., Link, C., & O'Donnell, A. (2006). Patient characteristics and inequalities in doctors' diagnostic and management strategies relating to CHD: a video-simulation experiment. *Soc Sci Med*, 62(1), 103-115. <https://doi.org/10.1016/j.socscimed.2005.05.028>
 577. Brutger, R., Kertzer, J. D., Renshon, J., Tingley, D., & Weiss, C. M. (2022). Abstraction and Detail in Experimental Design. *American Journal of Political Science*, 1-16. <https://doi.org/10.1111/ajps.12710>
 578. Lepiece, B., Dubois, T., Denis, J., & Zdanowicz, N. (2018). "Please admire me!" When healthcare providers' positive stereotypes of asylum seeker patients contribute to better continuity of care. *Psychiatria Danubina*, 30, 498-501.
 579. Madeira, F., Costa-Lopes, R., Do Bú, E. A., & Marinho, R. T. (2022). The role of stereotypical information on medical judgements for black and white patients [Article]. *PLOS ONE*, 17(6), e0268888, Article e0268888. <https://doi.org/10.1371/journal.pone.0268888>
 580. 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), 726. <https://doi.org/10.1186/1471-2458-12-726>
 581. Kluge, U., Bogic, M., Devillé, W., Greacen, T., Dauvrin, M., Dias, S., Gaddini, A., Koitzsch Jensen, N., Ioannidi-Kapolou, E., Mertaniemi, R., Puipcinós, I. R. R., Sandhu, S., Sarvary, A., Soares, J. J., Stankunas, M., Straßmayr, C., Welbel, M., Heinz, A., & Priebe, S. (2012). Health services and the treatment of immigrants: data on service use, interpreting services and immigrant staff members in services across Europe. *Eur Psychiatry*, 27 Suppl 2, S56-62. [https://doi.org/10.1016/s0924-9338\(12\)75709-7](https://doi.org/10.1016/s0924-9338(12)75709-7)
 582. World Health Organization (WHO). (2020). *Collection and integration of data on refugee and migrant health in the WHO European Region*. <https://doi.org/ISBN> 978 92 890 5536 9

583. Dauvrin, M., & Lorant, V. (2014). *COMETH - Competences in Ethnicity and Health - rapport de recherche*. <http://hdl.handle.net/2078.1/144426>
584. Chiarenza, A. (2014). *Equity Standards in Health Care*. Task Force on Migrant-Friendly and Culturally Competent Health Care.
585. Mladovsky, P. (2009). A framework for analysing migrant health policies in Europe. *Health Policy*, 93(1), 55-63. <https://doi.org/10.1016/j.healthpol.2009.05.015>
586. Riccardo, F., Dente, M., T, K., Fabiani, M., Napoli, C., Chiarenza, A., Giorgi Rossi, P., Velasco Munoz, C., Noori, T., & Declich, S. (2015). Towards a European Framework to Monitor Infectious Diseases among Migrant Populations: Design and Applicability. *International Journal of Environmental Research and Public Health*, 12, 11640-11661.
587. Farkas, L. (2017). *Analysis and comparative review of equality data collection practices in the European Union – Data collection in the field of ethnicity*. Publications Office. <https://doi.org/10.2838/447194>
588. Deding, M., Fridberg, T., & Jakobsen, V. (2008). Nonresponse in a survey among immigrants in Denmark. *Survey Research Methods*, 2(3), 1-35. <https://doi.org/10.18148/srm/2008.v2i3.98>
589. Schenk, L., Bau, A. M., Borde, T., Butler, J., Lampert, T., Neuhauser, H., Razum, O., & Weilandt, C. (2006). A basic set of indicators for mapping migrant status. Recommendations for epidemiological practice. *Bundesgesundheitsblatt Gesundheitsforschung Gesundheitsschutz*, 49(9), 853-860. <https://doi.org/10.1007/s00103-006-0018-4> (Mindestindikatorensatz zur Erfassung des Migrationsstatus. Empfehlungen für die epidemiologische Praxis.)
590. Whitehead, M. (1992). The concepts and principles of equity and health. *Int J Health Serv*, 22(3), 429-445. <https://doi.org/10.2190/986l-lhq6-2vte-yrrn>
591. McCabe, R., Amele, S., Kibuchi, E., Pearce, A., Hainey, K., Demou, E., Katikireddi, S., Irizar, P., Kapadia, D., & Nazroo, J. (2023). *OP60 Quality of ethnicity data within Scottish health records and implications of misclassification for ethnic inequalities in severe COVID-19: A national linked data study* Soc Soc Med, Newcastle.

592. McGuire, T. G., & Miranda, J. (2008). New Evidence Regarding Racial And Ethnic Disparities In Mental Health: Policy Implications. *Health Affairs*, 27(2), 393-403. <https://doi.org/10.1377/hlthaff.27.2.393>
593. Watters, C., & Ingleby, D. (2002). *Good practice in mental health and social care for asylum seekers and refugees*.
594. Castillo, L. G., Brossart, D. F., Reyes, C. J., Conoley, C. W., & Phoummarath, M. J. (2007). The Influence of Multicultural Training on Perceived Multicultural Counseling Competencies and Implicit Racial Prejudice. *Journal of Multicultural Counseling and Development*, 35(4), 243-255. <https://doi.org/10.1002/j.2161-1912.2007.tb00064.x>
595. Lepière, B., Zdanowicz, N., Jacques, D., Reynaert, C., & Tordeurs, D. (2014). Review of disparities in the mental health care of ethnic minority patients. *Psychiatr Danub*, 26, 43-47.
596. Bonciani, M., Schäfer, W., Barsanti, S., Heinemann, S., & Groenewegen, P. P. (2018). The benefits of co-location in primary care practices: the perspectives of general practitioners and patients in 34 countries. *BMC health services research*, 18(1). <https://doi.org/10.1186/s12913-018-2913-4>
597. Gerkens, S., & Merkur, S. (2020). Belgium: Health system review. *Health Systems in Transition*, 22(5), i-237.
598. Hu, J., Wu, T., Damodaran, S., Tabb, K. M., Bauer, A., & Huang, H. (2020). The Effectiveness of Collaborative Care on Depression Outcomes for Racial/Ethnic Minority Populations in Primary Care: A Systematic Review. *Psychosomatics*, 61(6), 632-644. <https://doi.org/https://doi.org/10.1016/j.psych.2020.03.007>
599. Coune, I., Dauvrin, M., & Verrept, H. (2020). *Vers des soins de santé équitables pour les migrants et minorités ethniques - Mémoire explicatif*.
600. Whitehead, M. (1998). Diffusion of Ideas on Social Inequalities in Health: A European Perspective. *The Milbank Quarterly*, 76(3), 469-492. <https://doi.org/https://doi.org/10.1111/1468-0009.00099>
601. Whitehead, M. (2007). A typology of actions to tackle social inequalities in health. *Journal of Epidemiology & Community Health*, 61(6), 473-478. <https://doi.org/10.1136/jech.2005.037242>
602. Bartig, S., Rommel, A., Santos-Hövenner, C., Schmich, P., von Schenck, U., Gößwald, A., & Lampert, T. (2018). The IMIRA project - Improving

- Health Monitoring in Migrant Populations. *J Health Monit*, 3(Suppl 2), 6. <https://doi.org/10.17886/rki-gbe-2018-051>
603. Zeisler, M.-L., Lemcke, J., Hövener, C., & Schmich, P. (2019). Integration of Migrant Populations into Health Monitoring in Germany: Results from a Feasibility Study. <https://doi.org/10.13094/SMIF-2019-00013>
 604. GOV.UK. (2023). *Standards for Ethnicity data*. . <https://www.gov.uk/government/consultations/standards-for-ethnicity-data/standards-for-ethnicity-data#:~:text=Ask%20people%20to%20report%20their,self%2Dreport%E2%80%9D%20their%20ethnicity>
 605. King, R. K., Green, A. R., Tan-Mcgrory, A., Donahue, E. J., Kimbrough-Sugick, J., & Betancourt, J. R. (2008). A Plan for Action: Key Perspectives from the Racial/Ethnic Disparities Strategy Forum. *The Milbank Quarterly*, 86(2), 241-272. <https://doi.org/10.1111/j.1468-0009.2008.00521.x>
 606. Bozorgmehr, K., McKee, M., Azzopardi-Muscat, N., Bartovic, J., Campos-Matos, I., Gerganova, T.-I., Hannigan, A., Janković, J., Kállayová, D., Kaplan, J., Kayi, I., Kondilis, E., Lundberg, L., Mata, I. d. I., Medarević, A., Suvada, J., Wickramage, K., & Puthoopparambil, S. J. (2023). Integration of migrant and refugee data in health information systems in Europe: advancing evidence, policy and practice. *The Lancet Regional Health - Europe*, 34, 100744. <https://doi.org/https://doi.org/10.1016/j.lanepe.2023.100744>
 607. Devillé, W., Greacen, T., Bogic, M., Dauvrin, M., Dias, S., Gaddini, A., Jensen, N. K., Karamanidou, C., Kluge, U., Mertaniemi, R., I Riera, R. P., Sárváry, A., Soares, J. J., Stankunas, M., Straßmayr, C., Welbel, M., & Priebe, S. (2011). Health care for immigrants in Europe: Is there still consensus among country experts about principles of good practice? A Delphi study. *BMC Public Health*, 11(1), 699. <https://doi.org/10.1186/1471-2458-11-699>
 608. European Cooperation in the field of Scientific and Technical Research. (2006). *Health and Social Care for Migrants and Ethnic Minorities in Europe – HOME*.
 609. European Cooperation in Science Technology. (2011). *Memorandum of Understanding for the implementation of a European Concerted*

Research Action designated as COST Action IS1103: Adapting european health systems to diversity (ADAPT).

610. European Cooperation in Science and Technology. (2011). *Adapting european health systems to diversity - ADAPT.*
611. Ziller, C. (2014). Societal implications of antidiscrimination policy in Europe. *Research & Politics*, 1(3), 1-9. <https://doi.org/10.1177/2053168014559537>
612. Rechel, B., Mladovsky, P., Ingleby, D., Mackenbach, J. P., & McKee, M. (2013). Migration and health in an increasingly diverse Europe. *The Lancet*, 381(9873), 1235-1245. [https://doi.org/10.1016/S0140-6736\(12\)62086-8](https://doi.org/10.1016/S0140-6736(12)62086-8)
613. Superior Health Council. (2022). *Research in mental health: Bridging the knowledge gap.*
614. Pattillo, M., Stieglitz, S., Angoumis, K., & Gottlieb, N. (2023). Racism against racialized migrants in healthcare in Europe: a scoping review. *International Journal for Equity in Health*, 22. <https://doi.org/10.1186/s12939-023-02014-1>
615. Maron, A., & Van Den Brandt, E. (2022). Plan Social Santé Intégrée. 1-105. https://www.brusselstakescare.be/wp-content/uploads/2022/11/PSSI_2023_MEP_FR_EDITO.pdf
616. White-Means, S., Zhiyong, D., Hufstader, M., & Brown, L. T. (2009). Cultural Competency, Race, and Skin Tone Bias Among Pharmacy, Nursing, and Medical Students. *Medical Care Research and Review*, 66(4), 436-455. <https://doi.org/10.1177/1077558709333995>
617. Wets, C., Duvéau, C., Delaruelle, K., Demoulin, S., Dauvrin, M., Lepièce, B., Ceuterick, M., De Maesschalck, S., Lorant, V., & Bracke, P. (2023). *REMEDI: Recommendations to patients with mental health problems and diverse migration backgrounds.*
618. Scherman, A., Etchegaray, N., Pavez, I., & Grassau, D. (2022). The Influence of Media Coverage on the Negative Perception of Migrants in Chile. *International Journal of Environmental Research and Public Health*, 19(13), 8219. <https://doi.org/10.3390/ijerph19138219>
619. Meltzer, C. E., Eberl, J.-M., Theorin, N., Lind, F., Schemer, C., Strömbäck, J., Boomgaarden, H., & Heidenreich, T. (2018). *Media Effects on Attitudes Toward Migration and Mobility in the EU: A Comprehensive Literature Review.*

620. Igartua, J.-J., & Cheng, L. (2009). Moderating Effect of Group Cue While Processing News on Immigration: Is the Framing Effect a Heuristic Process? *Journal of Communication*, 59(4), 726-749. <https://doi.org/10.1111/j.1460-2466.2009.01454.x>