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People's Movements in the 21st Century

Risks, Challenges and Benefits

Edited by Ingrid Muenstermann

PEOPLE'S MOVEMENTS IN THE 21ST CENTURY - RISKS, CHALLENGES AND BENEFITS

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Notice

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Meet the editor

Dr Ingrid Muenstermann is a retired sociologist, affiliated with Flinders University of South Australia. As adjunct, she teaches *Critical Social Determinants of Health* and *Qualitative Research Methods* in the Faculty of Medicine, Nursing and Health Sciences. Before Ingrid became an academic, she was employed in several secretarial positions in Germany and Australia. After migrating to Australia, she undertook university studies on a part-time basis and was awarded a PhD in 1997. Between 2004 and 2013, she established an academic career at Charles Sturt University. Her research interests vary greatly: starting off with an interest in immigration and multiculturalism, health and mental health was her next area of interest, followed by rural issues, the environment and renewable energy. In future, she plans to look at the health of ageing migrants and, stimulated by a chapter written for this book, at the 'new actors of immigration – foreign students'.

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Preface

According to the UNHCR Figures at a Glance 2016 (accessed on 24.11.2016), "An unprecedented 65.3 million people around the world have been forced from home. Among them are nearly 21.3 million refugees, over half of whom are under the age of 18. Nearly 34,000 people are forcibly displaced every day as a result of conflict or persecution. [And] there are also 10 million stateless people who have been denied a nationality and access to basic rights such as education, healthcare, employment and freedom of movement."

These figures published by the UNHCR created great concern; however, the visual images revealed by the media, its reporting of asylum seekers arriving in Italy and Greece in 2015 and 2016 and the 'processing' of these people created strong emotions. In what way could some personal help be provided? Will editing a book make a change? Objectively seen – hardly. However, instead of feeling compassion for those on the move and donating small amounts of money to charity, it was decided to at least try and make an effort to conquer some of the suffering. So when the offer came from InTech to supervise 'Immigration', it was taken up with great enthusiasm.

The title has now changed to 'People's Movements in the 21st Century – Risks, Challenges and Benefits'. Using the guiding theme 'Immigration', authors were invited to provide their thoughts. While it had been anticipated that in 2016 the situation in Europe would be central, this expectation was not quite met. Chapters were written by authors in countries such as Canada, Germany, Italy, Japan, Norway, Portugal, the Netherlands, Turkey, the United Kingdom, and in the United States of America. Interestingly, not all chapters deal with issues occurring in the countries in which the authors work or wrote, demonstrating global movement and flexibility of the writers in today's world of risks, as the sociologist Ulrich Beck (2009) defines the space we are living in at present.

'People's Movements in the 21st Century – Risks, Challenges and Benefits' captures many of the controversies of migration; it demonstrates the risks immigrants take as well as some possibilities they are being offered in the countries of their destination, but it also looks at many different challenges occurring in the receiving countries. The book actually starts with a chapter in relation to colonialism and post-colonialism. In this sense, I wondered whether things have improved during the last century. Who are the new power players in our post-colonial world of risks? Some push and pull factors and some personal experiences of immigrants are addressed, but comparative studies of immigrants and people in host societies (they are called 'natives') play a major part; rules and regulations and policies of how to govern and integrate immigrants are crucial aspects of the book. There is also an important chapter on gender (trailing women) and a critical chapter on the 'new actors of immigration, international students'.

The world has changed during the last 60 or 70 years and not everything can be defined clearly as positive or negative; there are many contradictions. Most societies have profited from globalization, market economies, transnational free trade, and cheaper travelling, but some societies have been left behind. So have some people. On the one hand, there can be no doubt that in today's society, the methods of destruction have created *catastrophic risks* (Beck, 2009), for the environment and also for those who want to move or have to move in order to survive. Beck's theory of risk is fitting when looking at the statistics of the UNHCR: these risks are based on innovation and developing technologies. On the other hand, looking at the more positive issues of progress and modernization, time and space are converging, people are better informed, longevity has improved, trade can take place via the Internet and travelling is more comfortable and faster. Most of all, the international students' movement is an encouraging new phenomenon: travelling, studying in a foreign country and experiencing different cultures usually lead to a widening of people's perspective, creating tolerance and improving the understanding of foreign customs – the only restriction being the economic resources of the parents. However, since international education is marketed worldwide by almost all universities and since the number of international students is rising continuously, there is optimism that the risks of destruction will be reduced.

As the reader quite rightly perceives, I am an eternal optimist.

This book is dedicated to all those who have lost their lives leaving their home country and seeking asylum somewhere else. It was written in the spirit of peace and hopefully will contribute to this sentiment.

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Introduction

Chapter 1

Introductory Chapter

Ingrid Muenstermann

Additional information is available at the end of the chapter

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This book is edited by a social scientist, a humanist, cosmopolitan, who has the privilege to live in a so called civil society.[1] I emigrated from Germany to Australia for the second time in 1973, a divorcee with two teenage daughters. Of course, the beginnings were not easy. Having been assured the position of secretary for the newly established Goethe Society in Melbourne, we had to come to Adelaide because a Lutheran Minister, Pastor Zinnbauer, was our guarantor. Things went from bad to worse: The person who was meant to establish the Goethe Society in Melbourne was killed in an airplane crash, while we were on our way to Australia on board of the Flaminia. Not a good beginning in a new country—a time of self-inflicted injury and great uncertainty. I decided to stay in Adelaide and make the most of the situation. Looking back now, memories persist, but bringing things into perspective and considering the circumstances faced by millions of people who flee today war torn Syria, try to escape persecution, or are forcibly displaced and reside in camps in the Middle East or in Europe, I consider myself very fortunate! I made it to and in Australia—professionally. Bob Holton [2] looks at his pursuit of academic employment in three different countries and reveals a similar attitude, pointing out that

> This [moving from one country to another] represents only one of a range of global trajectories that individuals and families make in the contemporary world, one located within wealthier and more powerful settings. There are many far riskier and often tragic global trajectories for those who seek asylum, or for whom mobility in the search for employment and security is a day-to-day struggle for survival in the face of exploitation and danger. (p. viii)

The book is an attempt to provide a critical view of the present immigration and refugee situation. Today's globalized world has created winners and losers: Billions of dollars shift daily across invisible borders, welcomed by developed as well as by developing societies, and import and export influence the gross domestic product, but the movement of people is challenged, creating emotive debates. Migration is a contesting policy area in most countries,

[1] In a civil society, social connections, which include plenty of robust goodwill to sustain difference and debate, are of supreme importance [1].

and there is widespread public resistance to immigration that reaches large numbers. People are afraid, usually without justification, that migrants will take their jobs. There are also fears of terrorism, of Islamization, of the destruction of social norms, and of the loss of familiar customs and common laws. While *peoples movements in the twenty-first century—Risks, challenges and benefits* deal directly with only some of these issues, the book should set the scene for further discussion. The chapters were written by authors in Canada, Germany, Italy, Japan, Norway, Portugal, The Netherlands, Turkey, UK, and USA; however, the writings do not always reflect problems of the countries they were written in. Scholars are flexible in today's *world at risk* [3] as chapters 2, 4, 13 show.

The book is divided into five parts, all of them capturing the objectives of risks, challenges, and benefits. **Part 1, Colonial history in a post-colonial world**, consists of only one chapter, but *The immigrant experience* is the fascinating sociological analysis of two articles, *The Enigma of Arrival* by V. S. Naipaul, and *White Teeth* by Z. Smith. Chapter 2 addresses the challenges immigrants face in the country of their destination. It looks at their expectations, disappointments, and struggles to integrate without losing their identity; it highlights power relations between the previously colonized and the previous colonizer in a post-colonial era. The author uses the theories of hybridity, mimicry, orientalism, otherness, ambivalence, and cultural differentiation to explain the actions of the main characters. The author also looks at intergenerational challenges: The parents, being the first generation of immigrants, want to maintain old customs and values, while their children aim to be accepted by their friends in the host society, wanting to fit in, acculturate, which causes disquiet in the older and frustration in the younger generation.

Part 2, **Settlement of Immigrants—Health Care Challenges**—contains five chapters. Chapter 3 looks at *Immigration and food insecurity: The Canadian experience*. In 2011, the immigrant population of Canada was 6.8 million (20.6% of the total population). This fact implies the challenges for a government to anticipate risks, that is, how to keep new settlers healthy and prevent diseases. At arrival, migrants are generally healthier than the host population, and they display fewer chronic illnesses and lower levels of disability; however, this changes over time. There are several reasons for this: Migrants usually experience low socio-economic status, indicating that their food choices are limited, and their lifestyle and diets change. They are often socially excluded which can lead to the consumption of unhealthy 'comfort' food which, in turn, leads to being overweight. The authors argue that the medical system is inept to deal with the diverse dietary needs of immigrants. They explain in some detail the meaning of food security and provide statistical evidence: The prevalence of food insecurity is higher among recent immigrants compared with non-recent immigrants. They suggest that the cultural perspective of food be recognized as the fifth pillar for food security and that measurement tools be developed to capture availability, accessibility, utilization, stability as well as the cultural dimension of food. The authors also argue that addressing food security is critical for the integration of healthy Canadian immigrants.

Chapter 4 compares *health-related quality of life of elderly Turkish and Polish migrants with that of German natives: The role of age, gender, income, discrimination, and social support*. This chapter presents original research and contains a great deal of statistical data. Germany accommodates

15 million migrants (almost 19% of the population), and 1.4 million are aged 65 and above. Questionnaires (Sf-36, plus queries regarding socio-economic status, discrimination, social support) were distributed in Hamburg, Germany, to 100 Turkish, 103 Polish migrants and 101 native Germans. The authors were testing their hypotheses that age and gender influence health-related quality of life, especially that of immigrants, that when income decreases and discrimination intensifies, quality of life decreases, and that social support improves the quality of life. The findings were analyzed for each group, and the groups were compared. Most of their assumptions were confirmed; however, interestingly their notion that migrants (here Turkish and Polish) inevitably suffer poorer health-related quality of life than natives (in this case Germans) could not be substantiated.

Chapter 5 looks at *Suicidal behaviors in patients admitted to emergency department for psychiatric consultation: A comparison of the migrant and native Italian populations between 2008 and 2015*. It is a long-term (2006/2008 to 2015), qualitative and quantitative study carried out in a public hospital in the north of Italy (Novara, Piedmont). Eight authors have contributed to this chapter, and comparison is made between the Italian natives and the migrant population. In 2014, 5 million migrants (8.2% of the total population) lived in Italy. The authors observed that socio-economic status and physiology of the two groups were different. They found that the immigrants were younger than the native Italian population, that they used the emergency department (rather than psychiatric outpatient services), and mainly attended because of self-injury, substance abuse, and alcohol-related disorders. The Italian natives were older, often retired, invalid, or disabled and were more commonly treated by psychiatric outpatient services and presented with a more diverse range of psychiatric symptoms than the migrants. The authors argue that migrants may experience a condition similar to bereavement: They usually lose the connection with their home country, experience exclusion, lose social status, feel inadequate because of language barriers, and are often unemployed. All of these issues lead to stress and can result in mental illness (i.e., substance abuse and self-harm).

Chapter 6 is also written by an Italian author, dealing with *Migration and health from a public health perspective*. The author is especially interested in migration medicine and looks at Italy's public health policies. He argues that consideration of the social determinants of health (education, job, income, and accommodation) would be beneficial. He also finds that the health of migrants is of importance and that in order to establish their needs, qualitative and quantitative research is necessary, involving a multi-disciplinary team approach. An unhealthy population is costly, not only financially but also socially and publically. The author advocates that sanitary systems be more actively promoted—not all migrant women are familiar with the prevention of an oncological disease. Health services in industrialized countries are well established but are also expensive. Therefore, he promotes the creation of more reliable databases, the introduction and maintenance of dependable sources of sanitary information, record linkages between different systems (personal background as well as health care information), and international identification of important indicators so that they can be used transnationally. The author is a supporter of the unconditional human rights of migrants (whether they are regular, legal, documented or irregular, illegal, undocumented) and argues that (a) more economic resources are needed to prevent rather than cure ill health in migrants,

that (b) cultural barriers ought to be contested, and that (c) the training of staff incorporates a transcultural approach.

Chapter 7 is, again, written in Italy by a considerable group of authors. It is a review of the literature and statistical data and deals with the important issue of *the impact of tuberculosis among immigrants*. The authors find that according to official statistics, tuberculosis shows no signs of disappearing despite its decreased prevalence in high-income countries. The group presents an overview of tuberculosis among immigrants in low-TB burden countries and different screening practices. They also look the risks of latent TB infection (LTBI) and argue that screening is important since early diagnosis and treatment prevent a prolonged disease. Different screening practices are discussed in relation to different countries. Other important issues in this chapter are the diagnosis and management of tuberculosis, including drug-resistant TB among immigrants: The sputum smear microscopy is still effective, but today more advanced technologies are often used, including radiographic imaging, nucleic acid amplification techniques, and new generation assays. In their concluding paragraphs, the authors look at the worldwide burden of tuberculosis. They consider the push and pull factors that influence people to migrant and argue that the health of immigrants is important, because ill health of the migrant population is costly to the host society. Overall, the authors find that TB transmission between immigrants and native populations is rare, but TB control is important. They recommend more resources be allocated so that "Global Action Framework for Research towards TB Elimination" for the period 2016–2015 can be achieved.

Part 3 Settlement of Immigrants—Some Cultural Aspects—consists of four chapters. Challenges faced by the newcomers as well as by researchers and policy makers are addressed. The most important issue for immigrants is to be able to communicate in their country of destination, which very often requires the learning of a new language. Chapter 8, *Socio-cultural models of second language learning of young immigrants in Canada*, addresses the problem. The authors find that both sociolinguistic and cognitive-linguistic approaches are needed in order to understand second language teaching, learning and why many people maintain an accent. Acculturation, the distance from mother tongue to English, previous experience with other cultures, and the age of second language learning influence cognitive-linguistic second language learning; the social context of the language learner affects the level of proficiency. The chapter contains an important discussion on the methodological challenges when searching for a consistent definition of acculturation, when conducting research on acculturation and language learning, and when determining the link between acculturation and language learning. The authors sum it up like this: The more confident the immigrant is in speaking the language of the host society, the more positive interactions will occur which "in turn lead to a reinforcement of the immigrant to acculturate into the mainstream cultural group".

Chapter 9, entitled *Acculturation, adaptation, and loneliness among Brazilian migrants living in Portugal,* addresses the risks individuals face when deciding to emigrate and the challenges for policy makers to provide some strategies to make the life of these people acceptable when losing their jobs or growing old. This is a mixed-method study, involving 258 participates. In 2014, Portugal's population of 10,402,000 included 22% of immigrants (228,844), of these 87,493 (almost 8.5%) were of Brazilian origin. These people worked mainly in low-skilled jobs,

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which made them vulnerable during the economic recession. This research is of importance, it establishes how Brazilian immigrants to Portugal fit into the overall structure of society and what challenges are needed to be addressed. The authors tested five hypotheses relating to loneliness of Brazilian migrants and concentrated on issues such as integration strategies, the influence of the immigrants' cultural identity, the effects of perceived discrimination, the importance of self-worth, and the perception of others. They used W. J. Berry's explanation of acculturation as benchmark and utilized the ULS-6 scale (revised UCLA Loneliness Scale) to establish loneliness and several other measures to determine acculturation strategies, cultural identity, prejudices, self-esteem, and attitudes toward ethno-cultural groups. The results supported three of their hypotheses, but two were only partially supported. The most important finding was that Brazilians in Portugal choose to be integrated into society. This means that they would like to maintain their own cultural heritage but would like to develop close ties with the host society.

Chapter 10, *Asians as model minorities: A myth or reality among scientist and engineers in academia* takes a critical look at how Asians are perceived by society and analyzes this general sentiment by looking at their personal experiences. The term 'model minority' emerged because Asians are high academic achievers and hold high socio-economic status compared with African Americans and Hispanics. But, as the author points out, this group confronts inequity in income and job opportunities when compared with their Caucasian counterparts. The first point the author makes is that 'Asians' are not a heterogeneous group but are made up of people from Cambodia, China, India, Indonesia, Japan, Korea, Malaysia, Pakistan, The Philippines, Singapore, South Korea, Taiwan, Thailand, and Vietnam. The author argues that most race/ethnicity research does not present a true picture because 'Asians' have been merged into one category. People of different ethnic backgrounds seem to follow certain career trajectories and are drawn to certain jobs in academia. For the purpose of this research, the author divides 'Asians' into (and here it gets a little complicated): 'Asian-non-US-citizens' and 'Asian-US-citizens' to compare their experiences with those of 'other-non-US-citizens' and 'other-US-citizens'. These differentiations are important in order to determine academic achievements, job satisfaction, and job productivity between groups. The author presents empirical evidence that these issues are influenced by citizenship and argues that high achievers need to have the possibility of progress. If the US does not provide this sense, these people may return to their home countries creating not only a vacuum within the scientific community but also producing increasing costs for the government when retraining new academics. More research into and greater appreciation of 'Asian-non-US-citizen' scientists is advocated.

The next contribution to this book, Chapter 11, asks the question: *Why do immigrants to Norway leave the country or move internally?* Important facts (empirical evidence) are provided by a group of scholars from the Research Department, Statistics Norway. The authors use statistical data of 2012 and 2013. They establish eight different groups of people, four different locations (they call it levels of centrality), and consider the two genders to determine the movement of migrants. In order to find answers to their question of why immigrants leave Norway or move within the country, they use variables such as age, duration of residence in Norway, labor market status, reasons for immigration, level of education, and family size and composition. Their main findings are that (a) the probability of emigration or internal migration

decreases with increased length of residence (integration effect over time) and that (b) labor force participation strengthens the relationship to the host country (decreasing the probability of moving). Interestingly, reasons provided to immigrate to Norway, such as 'work', 'family', and 'escape' are high indicators for staying at the same locality. This study also created some contradictions: On the one hand, it shows that those immigrants who are well integrated into the workforce are inclined to remain while those not in the work force have the highest rates of emigration. On the other hand, those with the highest rates of education are showing high rates of emigration. Overall, the four main reasons for return migration are weak integration into the host country, close attachment to the country of origin, return after accumulation of financial resources, and improved or new employment opportunities in the country of origin. The authors advocate further research in order to keep the population (workforce) steady.

Part 4, The New Wave of Immigration—Foreign Students—considers the present but also takes a look into the future. Risks? Challenges? Yes, of course, but the chapter *The new actors of international migration* demonstrates the benefits of foreign students to the host society, to native students, and to the foreign students themselves. The move of young people to complete their education in a different country offers countless opportunities to all involved. The title itself is of significance, that is, 'the new actors'—implying change, anticipation, and enthusiasm. The OECD reports that in 2012/13 5.4 million students were registered at an educational institution outside their home country [4]. This quantitative study was undertaken at a university in Turkey. Previously, Turkey had sent students to other countries to complete their education; however, today increasing numbers of foreign students are attracted to Turkey. The author wanted to find out whether international students in Turkey experience prejudices, discrimination, and racism. The author also wanted to determine the levels of adaptation to and satisfaction with their lives in Turkey, would they be prepared to promote Turkey to prospective visitors and/or students in their home countries, and what would be the avenues of promotion. Promoting university education in Turkey is an important issue to increase the foreign student population. One hundred and eighty-two undergraduates, aged between 17 and 27, were researched using a survey that established demographic details as well as asked questions relating to the issues mentioned above. The students are from Africa and Asia, from regions of Europe/Balkan, Europe/Other, South Caucasus, and from the Middle East. The results of this study are interesting: prejudices and discrimination were faced (to a minor degree) by all students, but mainly off campus than on campus; and students from Africa and the Middle East experienced racism to a larger degree than students from other regions. The author provides some important explanations of why certain groups of students experience more prejudices than other groups. Overall, the results show that the biases experienced by the undergraduates did not affect their impressions of Turkey; there is evidence that they will promote university education in Turkey. And the means to do that? Positive social networking will encourage people to migrate, and this will boost the number of international students. The internationalization of education, growth of mass communication and transportation, and the relationship between present and potential immigrant students will have an encouraging effect on relocating for educational purposes. Foreign students will be the new actors of immigration.

Part 5, Emigration and Gender, consists of a very important chapter, dealing with an issue that has so far lacked research: *The voice of trailing women in the decision to relocate. Is it really*

a choice? Research suggests that trailing spouses play an important part during expatriation: a successful outcome of the private and professional life of all involved depends on the willingness of the spouse to move, on assignment completion, expatriate adjustment, and expatriate performance. Between 2015 and 2016, the author undertook a phenomenological study interviewing 12 wives and mothers (27–42 years of age) in the Netherlands and in the United States regarding their experiences of being a 'relationship partner' of a 'highly skilled spouse'. The author wanted to determine their degree of agency. All women were academically educated and employed prior to relocation. The emerging themes included support of the husband's career, economic considerations, the well-being of the children, and solving a problem at their place of work. Most women placed their husband's professional progress as the main reason to relocate; however, it was often the only conceivable path, precluding an open discussion on the decision to relocate. The author concludes that for most women, relocation is not a real choice but that sacrifices are required in order for their partner to practice a real choice. Analyzing the situation from a sociological point of view, the author looks at powerlessness and gender-role ideologies that depict women as the primary care giver and men as the primary provider. Therefore, trailing women in this study made the choice to relocate based on the viewpoint that their role in the family, that is, in the reproductive realm, is subordinate to their husband's role in the working world, the productive realm. There are some very interesting arguments presented during the interviews with the researcher.

Putting the last touches to this book a fortnight before Christmas 2016 and living in a nice, albeit very run-down house with a lovely garden in South Australia, I cannot help but thinking of my (and all other children's) childhood during World War II, at times of danger and great uncertainty. Today's troubles, Syria and Aleppo, are a constant reminder. CNN news [5] reports that:

> Syrian government troops now control most of the neighborhoods in the old city of Aleppo after days of fierce fighting against rebel forces, with only small pockets remaining in opposition hands.

Another news item from Beirut, Lebanon [6], reports:

> Hundreds of Syrian men who escaped rebel-held areas of eastern Aleppo to reach government-controlled parts of the city are missing, United Nations officials said on Friday [9.12.16], adding that they had received reports of government reprisals, including numerous arrests and several cases of summary killings of suspected supporters of the opposition. At the same time, the officials said, some rebel groups have prevented civilians from leaving and even killed or kidnapped those who demanded that insurgents leave their neighborhoods.

After 5 years of war, will there be peace? How soon will there be some peace? The reports and images provided by the media cast doubt on my hope, so world leaders, governments, policy makers as well as ordinary citizens will have to further consider how to make this world a better place to live in, how to prevent risks and circumvent challenges.

It is believed that this book provides some important insights into the complexities of people's movements in the twenty-first century. Every chapter looks at the risks involved in leaving one's home country: It is not only the loss of old familiar places, family, and friends but involves uncertainty and often the loss of prestige and status. These are challenges that need to be conquered by the individual migrant; they involve push and pull factors, integration,

and acculturation, followed by assimilation. Looking at people's movements from a government perspective, settlement plans, healthcare programs, and language teaching curricula are strategies that need to be in place in order to create a society where people feel safe and have the opportunity to advance. Beck [7] points to the challenges faced by individuals as well as by governments to adjust to present circumstances: "Today's world of global crises and dangers produced by civilization, and the old differentiations between internal and external, national and international, us and them, [need to] lose their validity and a new cosmopolitan realism becomes essential to survival" (p. 14). Easier said than done.

Benefits of people moving or relocating relate to their overall well-being and to the well-being of the receiving society: Immigrants are the 'reserve army of labor', that is, competing for jobs depresses wages. There is also the logic of demand and supply. Giovanni Peri [8] makes the point that "by taking the manual jobs that natives progressively leave, immigrants push a reorganization of production along specialization lines that may increase the effectiveness and efficiency of labor". He looks at the mobility of migrants and finds that "highly educated immigrants account for about one-third of US innovations". He sustains this argument by providing some figures: "In 2006, immigrants founded 25% of new high-tech companies with more than $1 million in sales, generating income and employment for the whole country". Mark Wooden [9] argues that "in the longer term, immigration gives rise to government revenues, which more than pay for the expenditure that immigration also gives rise to" (p. 153). Apart from these few economic benefits, migration, moving between countries, has other advantages: It will broaden the outlook of the traveler, change their perspective of other people, of their cultures and countries, and it will provide a better understanding of humanity. Closing this chapter, here is a thought on what it means to be enlightened:

> What is enlightenment? To have the courage to make use of one's cosmopolitan vision and to acknowledge one's multiple identities—to combine forms of life founded on language, skin color, nationality, or religion with the awareness that, in a radically insecure world, all are equal and everyone is different. [7]

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Section 2

Colonial History in a Post-Colonial World

Chapter 2

The Immigrant Experience in V.S. Naipaul's *The Enigma of Arrival and Z. Smith's White Teeth*: An Exploration of Homi Bhabha's Postcolonial Theory

Berna Köseoğlu

Additional information is available at the end of the chapter

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Abstract

V.S. Naipaul and Z. Smith, prominent postcolonial authors, reflect the condition of the immigrants suffering from cultural shock, hybridity, fragmentation and mimicry in the postcolonial Western societies in their novels, *The Enigma of Arrival* and *White Teeth*. The former portrays the desperate condition of an author doing his best to create his work in the post-war West, in London and New York, trying to overcome his hybridity and adaptation problems due to his cultural background, and the latter sheds light on the cultural distress of two families from Bangladesh, immigrating to London, by stressing the conflicts between the Westerners and the Easterners and between the first and the second generations of immigrants. Thus, these two novels highlight the immigrant experience illustrating the impact of power relations between the former colonized and the former colonizer upon their relationship in the postcolonial era. In this study, the problems of immigrants in the post-war West in these novels will be analysed in the light of Homi Bhabha's postcolonial theory, which puts forward such concepts as hybridity, mimicry, ambivalence, cultural differentiation and otherness. In this regard, Bhabha's theory will be adapted into these novels to identify cultural problems of immigrants in these works.

Keywords: V.S. Naipaul, Z. Smith, Homi Bhabha, postcolonialism, immigration, orientalism, other, otherness, hybridity, mimicry, adaptation, multiculturalism

1. Introduction

Colonialism, determining the political, economic and social structure of countries from the beginning of the sixteenth century, had a great influence upon the social position and the

cultural values of the colonized. It is undeniable that England played a very significant role as the colonizer by controlling many Asian, African and American nations during the colonial age; so England, socially, economically and politically, dominated different countries whose social and cultural notions were replaced with the English norms. The personal identity of the colonized experienced a radical transformation, which resulted in otherness, fragmentation, hybridity and mimicry as a consequence of multiculturalism as put forward by the postcolonial theorist Homi Bhabha. In this respect, the power of the English nation as the colonizer was dominant not only in the colonial era but also in the postcolonial period. In this sense, even after the independence of the colonies ruled by England, the conflicts between the former colonized and the former colonizer could still be recognized, particularly when these two opposite groups came together in the postcolonial age as a result of the former colonized's immigration to England.

In order to identify these conflicts in the light of Homi Bhabha's postcolonial theory, two postcolonial novels will be analysed in this chapter. One of them is, Vidiadhar Surajprasad Naipaul's the autobiographical novel, *The Enigma of Arrival* (1987), which portrays the cultural trauma of an immigrant from Trinidad, especially in England but also in New York by referring to the enigma the novelist himself experienced when he immigrated from Trinidad to England. The character's dilemma due to his Trinidadian background in English culture clearly shows the author's inner conflict because of his hybridity. In this sense, the influence of Naipaul's own Trinidadian background and education in England upon the protagonist in his novel is obvious.

Zadie Smith's *White Teeth* (2000) also reflects the condition of the former colonized, the immigrants coming from Bangladesh to England by revealing the psychological trauma and the cultural conflicts these immigrants experienced in England in the post-war age. Especially Smith's coming from a multicultural family, her being torn between Jamaican and English heritage due to her mother's Jamaican nationality and her father's English origin, their years in the post-war England, contributed much to her effective portrayal of the immigrant trauma in her novel *White Teeth*. While dealing with the struggles of the in-between immigrants in these two works, Homi Bhabha's postcolonial philosophy will be explored and adapted into these novels.

Thus, one can clearly observe the same cultural torment, isolation and alienation the formerly colonized people suffered from during the colonial age and also in post-WWII England, the postcolonial West, in these two works. Therefore, the aim of this chapter is to question the metaphorical practices of colonialism in the postcolonial era and its impact upon the immigrants in the postcolonial age by analysing the condition of the immigrant characters in *The Enigma of Arrival* and in *White Teeth.*

2. Homi Bhabha's postcolonial theory

Analysing Homi Bhabha's postcolonial theory, it should be stated that his emphasis, in his work, *The Location of Culture*, on concepts such as hybridity, ambivalence, otherness, cultural difference and mimicry played a significant role in refiguring postcolonial theory.

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In Bhabha's postcolonial theory, the influence of Edward Said's postcolonial approach cannot be ignored. Said pays special attention to the discrepancies between the culture of the West and the East by introducing the term "Other" for the Easterners, which illustrates the gap between the "metropolitan culture" and the culture of the "Other." In other words, he asserts that the differences between the "centre" and the "peripheries" can effectively be explored by a "hybrid," who can combine his/her non-Western culture with the Western norms, so in his work *Orientalism*, Said defines "Orientalism" as a way of understanding the traditions and the habits practised in the Orient and accepting its distinctive position in the rise of Europe [1].

According to Said, the West should not ignore the special cultural position of the non-Westerners; the non-Westerners should not be defined as the "Other" and they should live in harmony together. The close interaction between the Orient and the Occident during the colonial period led to the diversity of cultures and brought different cultures together in an environment; however, it also caused the separation between these groups. Said's analysis of these cultural conflicts brought about his theory, "Orientalism," which is also explained by the author himself as the distinction between "the Orient" and "the Occident" [1].

The discrepancies between the Orient and the Occident, which have been discussed in literary, philosophical and political texts, were regarded as problematic issues causing the strict distinction between the East and the West. Analysing the living styles, social norms, daily habits and viewpoints of the Easterners, many writers questioned the gap between the two parts. Said's emphasis on these concepts influenced Bhabha and he elaborated his postcolonial theory owing to Said's philosophy, accordingly Bhabha also contributed so much to revising postcolonial philosophy. First of all, the term "hybridity" is put forward by Bhabha, in *The Location of Culture*. According to his remarks, "split-space" emerging in the postcolonial era led to an "international culture" [2]. When one considers the term "international culture," it can be asserted that it does not signify the official concept of multiculturalism, but diversity, plurality of cultures and cultural hybridity. Hybridity here refers to the "in-between space," in which contradictory cultures come together and clash. Thus, this concept may suggest a new position for the postcolonial subjects. Instead of just celebrating the mysterious sense of cultural plurality, Bhabha tries to understand the feelings of people, who are in-between hybrids, and identify their relationship with society in the postcolonial period.

Another term he suggests is ambivalence to emphasize the status of the postcolonial people in multicultural societies. The contradictory status of the immigrants in the postcolonial West and their conflicts due to their hybridity caused them to suffer from ambivalence. According to Bhabha, owing to ambivalence, colonial stereotype appears and the colonized's duality of identity comes to the fore [2]. The "colonial stereotype," the powerful position of the colonizer and the powerless status of the colonized, comes to the fore as a result of ambivalence, which determines the position of identities, their relationships with each other and their attitudes towards one another. Therefore, the contradictory approach portrayed towards the former colonized in the postcolonial era can also be defined as one of the reasons leading the immigrants, the ex-colonized, to cultural trauma. In this manner, the former colonized were also exposed to otherness

as Bhabha points out: "[…] colonial discourse produces the colonized as a social reality which is at once an "other" and yet entirely knowable and visible" [1]. In other words, the colonized, during the colonial and even in the postcolonial period, were considered to be the "other," the stranger, the alien and the isolated, who suffered from their secondary position because of their cultural differences. These cultural differences brought about stereotyped roles, which intensified the trauma of the ex-colonized. In order to be accepted by the former colonizer in the postcolonial epoch, they had no choice but to mimic, imitate the manners of Westerners. Bhabha suggests that mimicry refers to the other's inappropriate and complex situation when he/she tries to be appropriate among the colonizer and it leads to the conflicts between the colonized and the colonizer due to the differences emerging between the two sides [2].

In this regard, the colonized people's mimicking the colonizer was a sign of rejecting their own identities and cultural values for the sake of acceptance in the postcolonial West, and consequently, they felt inappropriate due to their otherness and hybridity. Ironically enough, the more they tried to get rid of their personal identities, the more they suffered because of this rejection. Their being torn between their origins and the norms of the ex-colonizer turned out to be contradictory in this sense, as consequence Bhabha, in the "Introduction" part of *Nation and Narration,* asks: When did we become "a people"? When did we stop being one? [3], which proves that he supports cultural unity and rejects othering individuals due to their cultural differences.

3. V.S. Naipaul's *The Enigma of Arrival*

V.S. Naipaul, as a hybrid novelist, portrays the influence of colonialism on the ex-colonized even in the postcolonial epoch in his novel, *The Enigma of Arrival*. In the novel, the impact of Naipaul's own background upon the reflection of the protagonist's sufferings because of his hybridity can be realized. Considering the biography of the author, it is clear that his own experiences dominate his novel. Trinidadian author, having an Indian immigrant family, receiving his university education at University College, Oxford, suffered from hybridity. On the one side, as he was familiar with his environment and people in his homeland, it was easier for him to lead his life there. On the other side, since there was no opportunity for him to broaden his mind and enlarge his vision in his homeland, he wanted to move to England [4]. But, in the West, he was exposed to cultural trauma and adaptation problems because of his in-between status.

In this sense, one of the most significant novels of Naipaul, *The Enigma of Arrival*, is a striking reflection of his own hybridity and his experience of otherness and multiculturalism, the aspects that can be observed in Bhabha's postcolonial theory. In the autobiographical novel of the author, the protagonist trying to discover his personal identity through writing makes him recognize his own hybridity, otherness and dilemma due to his immigration from Trinidad to London and New York. Thus, in the novel, it is apparent that Naipaul reflects his own experiences as Barnouw highlights:

> *Quintessentially a traveler, Naipaul has inhabited a large part of the world, looking at its amazing variety and trying to imagine the strangeness of people in different places and times. The experience*

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> *of cultural plurality moved him to seek out other's stories, and the symbiosis of recording and writing found already in his early texts reflects the responsibilities of writing out of others' articulated experiences, of transforming something already formed [5].*

Naipaul's recognizing "variety" of people and "strangeness" of each individual in a plural and multicultural world shows that he achieved identifying the stories of different people in different cultures during his life and bringing them together with his own story. In the same manner, the protagonist in *The Enigma of Arrival*, like Naipaul himself, and those he observed throughout his life, can also be regarded as appropriate examples reflecting the sufferings of the postcolonial subjects. In the novel, the way how the protagonist describes his feelings when he first arrives in England shows that he does not belong to the land as a stranger and his "strangeness" makes him uncomfortable [6]. In this respect, in the very beginning, he is aware of his "strangeness" and the difficulty to adapt into the new environment as observed through his own words: "The idea of ruin and dereliction, of out-of-placeness, was something I felt about myself, attached to myself: a man from another hemisphere, another background. […]. I felt unanchored and strange" [6]. The character referring to "out-of-placeness" and his emphasis on his "unanchored and strange" position prove that he is in a cultural shock and thinks that his position in England is improper and absurd due to his Trinidadian background. The reason why problems between the immigrants and the natives occurred in the postcolonial age was that the native people in the West regarded the position of immigrants as a threat to cultural unity. In this respect, Bhabha's concept of hybridity can be defined as a challenge to authority, to the Westerners [7]. Because of their cultural differences, the hybrids would bring their own cultural values to the West and undergo cultural clash with the Westerners, so it might be regarded as a risk by the Western society; although the protagonist in the novel has not experienced a negative reaction from the English in this part of the novel, he assumes that his cultural norms and the living style he has adopted in Trinidad cannot be reconciled with those in England. As a result, when the character experiences the oddity of his own cultural values, together with his environment and its norms, he realizes that the process of adaptation will be hard to overcome. The more he feels inappropriate in the West, the more he begins to feel inferior, so even the house he begins to lead his life, in his own eyes, comes into view as the symbol of perfection, which is not suitable for an immigrant like him, as he emphasizes: "It could have been said that the perfection of the house in whose grounds I lived had been arrived at forty of fifty years before […]. Fifty years ago there would have been no room for me on the estate; even now my presence was a little likely" [6].

The house the protagonist begins to lead his life is perceived very magnificent by him, so he believes that the builder and the designer of the house could not have imagined that an immigrant from Trinidad with Indian heritage would stay in such a kind of splendid house. Fifty years ago, before the independence of the colonies, it could not have been possible for the former colonized to move to the West and live in houses in good conditions. Thus, it is not wrong to assert that the condition of the former colonies in the postcolonial period cannot be defined as totally good and this situation "would allow us to include people geographically displaced by colonialism such as African Americans or people of Asian or Caribbean origin in Britain as 'postcolonial' subjects although they live within metropolitan cultures" [8]. Here Bhabha's emphasis on the contradictory impact of cultural differences and otherness

upon the colonized can be recognized. The protagonist's feeling as the "other" in the postcolonial West because of his cultural difference is obvious in the novel. In this regard, Bhabha "argues that colonial discourse is agonistic, split and contradictory, so that it never fully manages to assert a fixed and stereotypical knowledge of the colonial Other as it sets out to do" [9]. This uncertainty leads the protagonist in the novel to feel uncomfortable. As a result, he feels like a "stranger" [6] despite the opportunities he has after his immigration to England. In this sense, it is hardly possible for an immigrant to forget his colonial past and the difficulties he/she was subjected to because of his position as the colonized during the colonial era. As the protagonist is aware of the impossibility to get rid of his former position, as the colonized, he indicates that his Trinidadian colonial past prevents him from achieving his ambition in writing and from being appreciated by the English [6].

His referring to his "peasant India, colonial Trinidad" shows that he is still under the influence of his Indian and Trinidadian background, which follows him even in the postcolonial period; even if he tries to begin a new life in England after the colonial age, it is hard for him to adapt into the new environment, which is defined "unaccommodating." However, in spite of his discomfort in England after immigration, he reveals his ambition to immigrate to England before his immigration and the dilemma he suffers from after his arrival: "I had dreamed of coming to England. But my life in England had been savorless, and much of it mean. I had taken to England all the rawness of my colonial's nerves […]" [6]. What he underlines is that the problem here is not with the English people but with his crisis of personal identity due to his cultural problems. Bhabha's focus on the identity crisis and otherness of the hybrid colonized in Western societies among the Westerners, the colonizer, comes into view in this part. In this respect, "[…] cultural hybridity has become instead a reflexive moral battleground between cultural purists and cultural innovators, a cultural 'thing' in itself, defined in a field of contestation" [10]; therefore, in this battleground, the protagonist is in a cultural conflict and tries to adapt into the culture of the host country.

The disillusionment of the protagonist after feeling lonely, isolated and alienated in England can also be linked with his cultural and racial difference and it can be observed in the novel; what he expects about England before his arrival turns out to be disappointment after his arrival, because he does not feel that he belongs to the country; the social life and traditions in the country are not compatible with his own, and therefore, he assumes that he is a stranger in a foreign land in which he is frustrated when reality and fantasy contradict with one another: "I had come too late to find the England, the heart of empire, which (like a provincial, from a far corner of the empire) I had created in my fantasy" [6].

His searching for size in England proves that he wants to discover a more magnificent and powerful country than his own. Since he is isolated in a small island like Trinidad, he wants to explore a glorious country in which he aims at discovering splendid places he has never seen. Nevertheless, when he observes the power of the Westerners, he feels inferior, so it would be worth mentioning that with the onset of migration, power relations between the ex-colonized and ex-colonizer dominated the Western societies [11]; consequently, after his visit, the protagonist becomes disappointed when he realizes that even if London is better than Trinidad, it is not as splendid as he imagined before his visit, and particularly, his cultural trauma and

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loneliness cause him to define the city and his condition with negative phrases; therefore, he expresses his disillusionment by stating that he is "ignorant, joyless […], lonely" in London because of the cultural gap between himself and the English [6].

The reason why he feels so lonely is that he does not have anyone with whom he can share his feelings in London; in other words, he cannot find the society he can familiarize with due to his cultural background. This proves that problems occur when the cultural values of the immigrants are "transferred from small, closed societies, to large and complex ones" [12]. In this respect, Bhabha's referring to ambivalence in the colonial and postcolonial texts comes to the fore as Malpas and Wake also state: "Even in the most confident colonial text, Bhabha suggests that there are moments of ambivalence: moments when it is possible to discern that the argument is contradictory" [9]. Even if the ex-colonies achieved their independence, when they came together with the ex-colonizer, the identities of the former colonized could not exactly be defined.

Although the protagonist longs for being a part of the Western society, what he experiences is just frustration as he cannot get on well with the English as a consequence of cultural differences. One of the reasons why he cannot adapt into the culture of the English and feels inferior is his educational level, so he says: "But in spite of my education, I was under-read. What did I know of London?" [6]. No matter how much he has received education in Trinidad, he feels that it is not enough for him to prove himself among the qualified English. The more he has an interaction with them, the more he assumes that it is hardly possible for him to become familiar with the English, who are more qualified, talented and educated than himself, so he indicates: "I found a city that was strange and unknown" [6]. In this respect, he is torn between his illusionary world and real world that he really encounters; even if it is a fantasy for him to move to England, to improve himself and to make use of the opportunities in the West, after his immigration he is really disappointed because of his fragmentation, hybridity and cultural background as observed: "I lost a faculty that had been part of me and precious to me for years. I lost the gift of fantasy, the dream of the future, the far-off place where I was going" [6]. Ironically enough, though the world of fantasy that the protagonist expects to find in London is the greatest ambition for him, after leading his life there for a period of time he gets bored and feels exhausted due to his cultural shock and hybridity, and therefore, he stresses that he is under the "weariness" of his "social, racial, financial […] insecurity" in England [6]. Throughout the process of writing his work, the protagonist is bored not only because of his efforts to create his book, but also as a consequence of his adaptation problems in a multicultural society, London. In this perspective, Bhabha's portrayal of the conflicts experienced by the colonized because of their cultural differences can be described as one of the reasons bringing about adaptation problems of the immigrants in the postcolonial West. Therefore, it is obvious that "[d]escriptions of multiplicity of the self usually stress its variations over time and the discontinuities among the identifications forced upon us by rapid change" [13]. In such a kind of changing world, the differences regarding the identifications of the ex-colonizer and the ex-colonized dominated the multicultural societies in the postcolonial era as seen in Naipaul's work as well.

Together with his identity crisis in England, the protagonist also refers to his identity problem in New York when he first arrives in the city. While he is writing his work in England, he

re-examines his immigration to New York and emphasizes how he feels as a stranger not only in London but also in New York, as a consequence he stresses: "Was there some fear of travel, in spite of my longing for the day, and in spite of my genuine excitement? Was this reaching out to people a response to solitude–since for the first time in my life I was solitary? Was it the fear of New York? Certainly" [6]. The fear of adaptation and the anxiety of being rejected by the American come to the fore, and therefore, he indicates that although it is the first time he is solitary in New York, the reason for his discomfort is not his state of solitariness but his fear of the foreign city, which proves that leaving one's homeland and immigrating to a new environment result in cultural shock. Moreover, his plane's late arrival at the airport in New York and the British Consulate officer's leaving the airport before meeting him cause him to feel distressed. In this regard, Bhabha's theory asserting the otherness of the colonized is also dominant in the novel. The otherness of the protagonist makes him more vulnerable. Since he is so sensitive because of his loneliness and isolation in the big city, he begins to blame the man from the consulate as he leaves him alone in the big city, so he is deceived by the taxi driver [6].

His being subjected to alienation on the first day of his arrival and the taxi driver cheating him make him feel despised, oppressed and othered. In this regard, he begins to blame the Westerners who do not help him or protect him, and consequently, he cannot get rid of this feeling of humiliation for many years. Under the negative impact of his being an immigrant and a foreigner in a foreign country, he cannot escape from the "panic" dominating himself and he indicates that he is "lost" in New York [6].

Feeling lost in his hotel room in New York, he regards himself as "suppressed, half true," which justifies that he is culturally depressed. Even if there were multiculturalist policies in Britain for the immigrants from the ex-colonial countries, it did not mean that the sufferings of immigrants because of their hybridity came to an end [14]. Since Bhabha's concept of ambivalence is also prevailing in the novel, due to this contradiction the protagonist cannot overcome his cultural trauma and feel comfortable.

Furthermore, as an immigrant from Trinidad, he has also suffered from lack of social and educational opportunities. So in New York, when he sees the newspaper, *The New York Times*, for the first time in his life, he feels that he does not belong to the city and he thinks that it is too late for him to improve himself completely due to the chances he has missed till that moment:

> *But to read a newspaper for the first time is like coming into a film that has been on for an hour. To understand them [newspapers] you have to take knowledge to them; the knowledge that serves best is the knowledge provided by the newspaper itself. It made me feel a stranger, that paper [6].*

The extract above shows that the former colonized did not have the opportunity even to read a newspaper in his homeland due to insufficiencies. Moreover, he thinks that even if he has the chance to read the newspaper after the colonial period, he does not have the knowledge to grasp the issues indicated in the newspaper, so he feels like a stranger once more when he realizes his inability to respond to them, as a result as Bauman suggests, "[a]ll societies produce strangers, but each kind of society produces its own kind of strangers, and produces them in its own inimitable way" [15]. The state of being strange can also be associated with Bhabha's concepts of hybridity and otherness, which caused the colonized to feel incomplete. In particular, when they encountered, after immigrating to the postcolonial Western societies,

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the opportunities the colonizer benefited from, they felt more and more othered. Thus, in the novel, considering lack of opportunities for the colonized people during the colonial era, one can refer to the protagonist not having seen a French film before despite his readings about French films [6]; therefore, what makes him desperate is the insufficiency of social and educational facilities as he says along these lines:

> *So much of my education had been like that, abstract, a test of memory: like a man, denied the chance of visiting famous cities, learning their street maps instead. So much of my education had been like that: monkish, medieval, learning quite separate from everyday things [6].*

Although he received education before, it does not mean that he feels qualified enough to stand on his own feet; as an ex-colonized, he feels that he could not make the maximum use of educational chances due to his status. On the other hand, despite the fact that he has all the chances in the post-war West, it does not enable him to feel fortunate due to his fragmented identity. How he describes his position in a bookshop in New York shows that he is unfamiliar with the names and titles belonging to the West and he wants to see the familiar so as to escape his cultural trauma [6]. Even being surrounded by innumerable books in the New York bookshop does not make him feel joyful and satisfied as he is not familiar with all of the authors, as a result he feels humiliated, incomplete and hybrid due to his background. Therefore, he points out: "Yet, with the humiliations of my first twenty-four hours of travel, my first twenty-four hours in the great world, with my increasing sense of my solitude in this world, I was aware [...] that I felt no joy" [6]. Feeling despised and inferior, it is impossible for him to overcome his anxiety and cultural shock, so he cannot escape from feelings of loneliness, isolation and inferiority complex. Therefore, "[w]henever the process of identity formation is premised on an exclusive boundary between 'us' and 'them', the hybrid, born out of the transgression of this boundary, figures as a form of danger, loss and degeneration" [16], so the protagonist regards himself as the other, as "them" due to his hybridity, as a consequence he believes he will be considered to be a "danger, loss and degeneration." Bhabha's emphasis on the cultural otherness is obvious through the expressions of the character, who regards himself as the outsider because of his hybrid state.

In the light of the issues discussed, it is obvious that the protagonist struggles not only with his writing process, but also adaptation problems in London and in New York. Trying to cope with his hybridity and cultural difference, the protagonist reveals his colonial background and his dilemma due to his Indian, Trinidadian background and Western experience. In this respect, Bhabha's postcolonial concepts can also be recognized in *The Enigma of Arrival*, which demonstrates the inner conflict of an author because of his former colonial and postcolonial identities.

4. Zadie Smith's *White Teeth*

Britain is a multicultural country, which consists of various nations within itself. In particular, the immigrants, who came to Britain from different countries after World War II, constituted a significant part of Britain. Most of the immigrants migrated to Britain with great expectations in order to improve their living conditions with better job opportunities; however, they were faced with insufficient conditions, humiliation, poverty and misery, so

particularly after World War II, they suffered too much as a consequence of cultural trauma, racism and problems of otherness in Britain.

In this sense, Z. Smith's novel entitled *White Teeth* reflects the situation of the immigrants in Britain by portraying the oppression imposed on them due to their race. When Smith's cultural origin is taken into account, it can be deduced that her biography is compatible with the background of her characters in her novel. She was born in the north London suburb of Willesden to a Jamaican mother and an English father [17]. Therefore, coming from a multi-cultural family, Smith experienced the cultural values of these two countries and found the opportunity to observe the differences between the Jamaican and the English cultures. As a result in her novel, *White Teeth*, she effectively highlighted the conflicts between the cultural notions of immigrants and those of belonging to the English.

After World War II, Britain suffered from a severe labour shortage, especially in unskilled jobs and in service industries; therefore, the more there appeared people who decided to move from the rural areas of England to the growing urban areas of the country to work in the industrial centres, the more the ethnic profile of Britain changed [18]. As a result, cultural contradictions and inequalities became obvious because of different cultural norms, religious doctrines and traditions in British society.

In *White Teeth*, Smith sheds light on the isolation and alienation of the immigrants in England by showing the psychological trauma and cultural conflict these immigrants experience in the foreign country. In the novel, the difficult conditions people from different countries in England had to cope with in the postcolonial English society can be observed. In the work, the couple, Samad Iqbal and Alsana, who came to England from Bangladesh, represent those who are faced with suffering, degradation and racism due to their cultural, social and religious differences. In the novel, Samad is humiliated in English society because of his origin and culture. While he is looking for a more appropriate job, he starts to work as a waiter; however, he experiences nothing, but humiliation [19].

In this sense, it is obvious that the *other* is doomed to be isolated and humiliated at work in England. As a consequence, cultural distinction appears between the British citizens and the *others*, which places a significant priority on differences of skin colour. So although the post-war immigrants came to Britain from the Commonwealth to fill vacancies and labour shortage, they suffered from unemployment or from the harsh manners of the British employers [18]. Here Bhabha's concept suggesting the "in-between" position of the colonized can easily be realized as seen along these lines:

> *[…] the borders that are conventionally assumed to exist between colonizer and colonized, East and West, self and Other, are refigured in Bhabha's theory of hybridity. Bhabha argues that borders presuppose a no-man's land, an in-between space that simultaneously divides and connects two areas. This space, he suggests, is productive and enabling. Using the biological terms 'hybrid' to denote the liminal position of the migrant, Bhabha celebrates the intermingling of cultures and contests the idea of cultural purity [9].*

What is ironic here is that, according to Bhabha, this re-figuration and theory of hybridity would propose cultural unity and harmony among different cultures, but in the novel, *White Teeth*, the result is not so promising. Therefore, Samad is suffocated owing to the class

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distinction in the areas of employment, so he wants to challenge cultural discrimination and racism by revealing his identity and social position with a "placard" in society among the Westerners [19]; however, as indicated in the novel, "[b]ut, no such placard existing, he had instead the urge, the need, to speak to every man, and, like the ancient Mariner, explain constantly, constantly wanting to reassert something, anything," this shows that he suffers from cultural and racial discrimination and he wants to prove his identity among the English.

Furthermore, as an immigrant in the West, Samad and his family undergo economic depression and find it hard to survive as narrated along these lines: "The matter was … what was the matter? The house was the matter" [19]. Apart from experiencing the cultural trauma, immigrants were also subjected to accommodation problems in that period. Smith also portrays insufficient living conditions of the immigrants, struggling with poverty and inadequacy of their needs being met. In the novel, Alsana quarrels with Samad because of their poverty and their struggle to make a living as immigrants in English society. Her worries about their situation in the foreign land can be recognized in her dialogue with Samad:

> *What is the point of moving here - nice house, yes, very nice, very nice-but where is the food? You fight in an old, forgotten war with some Englishmen…married to a black! Whose friends are they? These are the people my child will grow up around? Their children-half blacky-white? But tell me, where is our food? […]* [19].

The immigrants clearly hoped to lead a comfortable life in England, but what they experienced was incompatible with their expectations, because they were exposed to insufficient living conditions and experienced financial problems, class distinction and poverty in England. In this sense, when the rate of income in England is taken into consideration according to the figures released by the Department of Social Security in July 1990, it is clear that "income inequality widened between 1979 and 1988, becoming greater than at any time since the Second World War" [20]. Income inequality and inadequacy of living and working conditions caused the immigrants to suffer, and similarly, Samad Iqbal undergoes the hardship of being a stranger in England, so he is degraded in the restaurant he works.

The reason why Smith creates immigrant characters suffering from cultural differences in the postcolonial West is that she wants to portray the difficulty for the immigrants to adapt into a new environment and to express themselves. Similarly, Bhabha also reflects the problematic and contradictory status of the hybrids in his work *The Location of Culture*, which "[…] is concerned with these dynamics of cultural difference and with finding ways that the subaltern can have voice, can have representation" [21].

Together with the problems related to the inequality between the English and the minority groups in the post-WWII Britain, the cultural conflicts also come to the fore in England as a result of migrants coming from different cultures. In *White Teeth*, the conflicts in terms of religion draw attention because of some problems between the two different cultures. For instance, when one of Samad's sons, Magid, wants to participate in the Harvest Festival at school, Samad objects, because as a Muslim he does not approve of Christian festivals, so he does not let Magid participate in the festival and says, *"I told you already. I do not want you participating in that nonsense. It has nothing to do with us, Magid. Why are you always trying to be somebody you are not?"* [19]. Furthermore, Samad decides to send back Magid to their native

land, Bangladesh, in order to isolate him from the cultural norms and social habits of the English and to make him stick to his own culture and religion [19]. This proves that Samad fears the fact that if Magid accepts his hybridity, he will be subjected to the risk of losing his original background; so he tries to lead his son to be non-hybridic. In this way, [f]or Bhabha the non-hybridic […] is a commitment to "unitary" or "originary" identity, identity as "presence […]" [22]. Therefore, Samad aims at protecting the "originary," and "presence" of his son. In this sense, his ideas related to his desire to protect his own culture and religion by sending his son to their homeland [19] can be interpreted as his panic about his son being an atheist in the West.

In the light of Samad's hesitation, it is obvious that he is worried not only about losing his own religion and culture as a consequence of being culturally influenced by the English traditions, but he also fears the fact that his children may negatively be influenced by the English culture. In this respect, it should be noted that the second generation, who has a tendency to adopt the English culture, experiences intergenerational difficulties and cultural conflict in the post-WWII England. As they have been brought up in England, they are more flexible in terms of adopting the English culture, but they are torn between their own roots and the English life style, as a result their hybridity leads them to mimicry. In this regard, "[t]hrough the concepts of hybridity and mimicry, Bhabha suggests an effectiveness of cultural difference that both resists enclosures of culture and displaces the exclusive power of colonialist discourse" [23]. Such a kind of "colonialist discourse" is also dominant in Smith's work. When the worries of Samad about his children are taken into account, he is aware of the fact that "it is not easy to escape mentally from a concrete situation, to refuse its ideology while continuing to live with its actual relationships" [24]. Being exposed to these "actual relationships," the second generation is more adaptable to the English life style. In *White Teeth*, striking examples related to the situation of the second generation draw attention; for instance, the son of Samad Iqbal and Alsana, Magid, does his best in order to be accepted by his English friends; therefore, on his ninth birthday, when his friends ask for "Mark Smith" instead of Magid, Alsana says: "Mark? No Mark here. You have the wrong house" [19]. This situation shows the desire of the second generation to be regarded as a part of the English society by eliminating their original characteristics. On the other side, the first generation does not want to lose their cultural heritage; therefore, Samad says: *"I give you a glorious name like Magid Mahfooz Murshed Mubtasim Iqbal! […] and you want to be called Mark Smith"* [19]. As the representative of the first generation, Samad rejects the Western norms and shows his anger towards his son when he wants to get rid of his cultural origin. It is known that Britain had an enormous power and authority over the other nations even in the postcolonial era, "the British Empire was thus viewed as the highest stage of the social organization" [25]. So Magid changes his name in order to find a position among the English. In addition, his desire to reject his origin and to adopt the Western traditions can also be observed in the novel. He is ashamed of belonging to an Eastern family, and the narrator reflects his desire to be from a Western family so that he would have the chance to join in the Harvest Festival [19].

As portrayed in the novel, Magid wants to escape his origins, his family and their traditions in order to be regarded superior and respectable by the Westerners, so he wishes that he had a chance to have a Western family, who practised Western habits and who allowed him to be

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involved in Western practices like the Harvest Festival. On the other hand, his father Samad is strictly against his children participating in Western social life and their insisting on mimicking the Western habits; consequently, his discomfort with Magid's insistence on being a part of the Harvest Festival and his asking Magid to come with him to haj can be related to his worries about loss of personal identity. No matter how much Samad tries to change the mind of Magid, he fails and Magid rejects the pilgrimage to Mecca [19].

Magid rejecting his father's proposal about going to Mecca and his challenge against his father's hatred to Western values show that the first and the second generations from the East struggle with each other in the West because of the former's fear of losing their cultural principles and the latter's desire to devote themselves to the Western values. There is no doubt that immigrants whether belonging to the first or second generations experience cultural trauma when exposed to the postcolonial West. While the former tries to resist the Western way of life due to fear of losing their own values, the latter tries to mimic the Western habits in order not to be rejected and be despised by the Westerners. In this manner, the vulnerable position of the immigrants in the post-war West is also explained in the novel. It is stated that immigrants in the West have a tendency to repeat the manners of the Westerners, as a result they cannot escape the cultural trauma [19].

Like Iqbals in the novel, many immigrants from the East experienced similar problems leading them to a cultural trauma. It is inevitable for these immigrants to suffer from the term "original trauma," which is defined in the extract above. As they cannot escape from this trauma, they are familiar with it, but find it hard to overcome it. Highlighting the cultural trauma undergone by the immigrants in the postcolonial West, Smith portrays not only the problems of the Iqbal family, but also the desperate condition of the Jones family with whom the Iqbal family has a close relationship. In this respect, when Samad Iqbal's friend, Archie's daughter Irie is taken into consideration, she can also be regarded as the representative of the suffering second generation. Irie's father, Archie Jones, is a working class English man, whereas her mother, Clara, is a black Jamaican immigrant. Consequently, as the daughter of a multicultural family, she has been brought up in England in accordance with her origins; nevertheless, she is surrounded by the English environment in which she desires to be involved. As a result, like Magid, she also tries to resemble the English by trying to change her original characteristics. In particular, one of the experiences she is exposed to in class leads her to be ashamed of her race and culture. After the sonnet entitled *The Dark Lady* is read in a course at school, Irie asks whether she is really black or not. Her teacher, Mrs Roddy, indicates that The Dark Lady cannot be defined as black, because there was no possibility to see slaves in England in that period and only slaves can be titled as black [19].

The reply of the teacher makes Irie uncomfortable and she feels inferior due to the colour of her skin. Considering the position of the black immigrants in England, it is doubtless that "[t]he history of Blacks in Britain and in the entire Black Atlantic expresses the kinds of themes indicative of the general fragmentation process of the world system as well as the intellectual cosmopolitan reaction to that process […]" [26]. Because of her fragmented identity, Irie finds it hard to overcome her cultural adaptation problems. Dwelling on the reference to slavery in the extract, it can also be defined as disturbing for Irie as the teacher implies that only the

black can be slaves. Furthermore, she also feels uneasy when she has the idea that the preference for women was to be excessively pale in 1660s, and she believes that the situation has not changed since those days. This shows the isolation and alienation of the black immigrants in postcolonial English society. Although Irie is born in England, she is treated as if she were a foreigner due to the colour of her skin; in this sense, racism appeared in English society in the post-war era. As racism is a reactionary conception and suggests that there are physical and psychological inequalities between human races, this reduces black and Asian people's chances of success in postcolonial Britain and forces them to survive with low incomes [27]. When the racial issue in Britain is taken into consideration, the 1976 Race Relations Act draws attention. Even though it was put into practice in order to create a more peaceful environment in which all the races were equal and independent, discrimination and inequality in the post-war British society still continued to some extent [28]. In this respect, it is not surprising to see that Irie wants to change her curly, black hair into straight, reddish black hair for the sake of acquiring the appearance of the English women [19]. Nevertheless, the result is a disaster and Neena makes fun of Irie, so "Irie couldn't say anything for a moment. She had not considered the possibility that she looked anything less than terrific" [19].

It is obvious that even if Irie aims at resembling the English, the Western women, the result is nothing but a disaster for her as another character in the novel, Neena indicates. Since Irie does her best to look like an English by changing the originality of her hair, she hopes that she will be respected and admired by the others; however, she merely becomes an interesting topic for the people around herself who would like to make fun of her. The situation shows that Irie feels uncomfortable due to her hybridity and wants to be recognized and accepted by English society, which is the source of superiority and power as stressed in the novel: "There was England, a gigantic mirror, and there was Irie, without reflection. A stranger in a stranger land" [19]. Her feeling like a "stranger in a stranger land" proves that she is under the pressure of cultural trauma, which causes her to regard herself inferior and powerless in the "gigantic mirror." The situation of the second generation can be related to Homi Bhabha's ideas about the efforts of the "hybrid others" to mimic the "Westerners." In this sense, "[h]ybridity is a term that Bhabha uses to describe the notion of mixed or hybrid identities which encompass the contradictory history of colonization, in contradistinction to the concept of a pure identity" [29]. Therefore, the attempts of the second generation to mimic the English in *White Teeth* show that the young generation lose their "pure identities" and are involved with the English identities. For example, Magid wants to study English law, which makes his father Samad worried about the loss of their own origins and religious views, so he emphasizes as follows:

> *"Allah knows how I pinned all my hopes on Magid. And now he says he is coming back to study the English law. […]. He wants to enforce the laws of man rather than the laws of God. He has learnt none of the lessons of Muhammad […]"* [19].

Samad's fear for the future of his sons proves that he does not want to be lost in English society, which has altered the attitudes of his sons, their tendencies and habits. However, the more his sons interact with the English, the more they are accustomed to the living style and customs of the English, which makes not only Samad but also Alsana uncomfortable as she indicates: *"The English are the only people … who want to teach you and steal from you at the same*

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time" [19]. In this manner, the second generations being under the undeniable influence of the Western culture and turning into Western traditions can be explained by the perspectives of Richard Hoggart and Raymond Williams, who define culture as a transformation, an active construction and experience [30]. In this sense, it can be deduced that one gains the cultural knowledge through a conscious learning process, so there is much to be gained by observation or participation. As a consequence, observing the customs of the English and participating in English social life, according to their parents, Magid and Irie turn out to be more English than the English. In fact, why they tend to adopt the English values and try to escape their own values is that they do not want to be excluded from the English society, even if in Bhabha's theory the issue emphasized is that "[…] members of postcolonial societies and minorities should not regard their ethnic or cultural traits as a limitation but as a potential wealth" [31].

Thus, immigrants undergo a process of cultural conflict and psychological trauma in the foreign country. In the novel, one of the events regarding the cultural clash between the immigrants and the English can be recognized, for instance, while Alsana, Clara and Neena, before Irie's birth, are talking about the name of the baby. Alsana advises Clara to give the name, Sarah, which her husband Archie likes. So she recommends her to please her husband and to be an obedient woman. In this sense, Alsana's niece Neena protests against the submissive and passive role attributed to women as follows: "There's got to be communication between men and women in the West […]" [19]. In this respect, the difference between Eastern and Western women is stressed in *White Teeth*; as an Eastern woman, Alsana has difficulty to express her ideas and to stand on her own feet, so she submits to the wishes of men, in this case to the wishes of her husband. As a consequence, Neena reminds her of the environment where she is leading her life and underlines the incompatibility of her obedient nature with the independent nature of the Western women in England. Although Alsana begins to become a part of the English way of life, she cannot break her ties with her own culture. When the gender issue in the nineteenth and twentieth century Eastern societies is taken into account, it is clear that women suffered from lack of independence. In this sense, Alsana's obedient aspect reflects her own cultural origin. The English culture and the culture of the East are contradictory. Although "[…] for Bhabha hybridity is a site of subaltern cultural and epistemological resistance to colonialism" [32], as observed in the novel, in some respects hybridity brings about serious clashes between the Easterners and the Westerners.

Considering the reaction of Samad, one of the immigrants belonging to the first generation, being against the Western norms, it is clear that he does not want to lose his personal identity, so he is against adopting all of the western notions for the sake of overcoming the adaptation problems, as a consequence when Archie calls him Sam instead of Samad, he turns out to be angry and says: "'*Don't call me Sam,' […], 'I'm not one of your English matey-boys. My name is Samad Miah Iqbal. Not Sam. Not Sammy. And not – God forbid – Samuel. It is Samad'*" [19]. Samad's anger after hearing that Archie calls him Sam is a signal of his fear of losing his identity, which is one of the most significant characteristics of the immigrants in the post-war West.

Coping with all these conflicts in England, the representatives of the second generation were oppressed due to the pressure imposed on them by their families and by the norms of English society. As a result, while one of the twin sons of Samad and Alsana, Magid turns out

to be an atheist, Millat becomes a militant [19]. So the pressure of being a part of two different cultures makes them suffer as the character, Joyce indicates in the novel: *"The fact is both these boys have serious emotional problems. They've been split up by their religions, by their cultures. Can you imagine the trauma?"* [19]. The cultural conflict leads Magid and Millat to emotional suffering, which brings about the feeling of uncertainty about their origins. The increasing number of British-born children of immigrant families suffered from cultural alienation and isolation in the post-WWII Britain [27]. In order not to be alienated and isolated, they mimic the English, and thus, "[b]y differently repeating the 'original culture', the 'self' of colonial culture splits, revealing its requirement for difference and otherness in order to be established as superior" [33].

In this manner, Samad Iqbal believes that it is the corruption in England which has destroyed his family and their cultural roots. He says: *"I have been corrupted by England, I see that now-my children, my wife, they too have been corrupted"* [19]. Since the customs and lifestyle in England are not in accordance with his Eastern culture, he regards the English culture as corrupted. In this sense, multiculturalism in England resulted in some cultural problems among those who made an effort to survive there despite all cultural, traditional and religious discrepancies. As mentioned in *Resistance Through Rituals*, culture is made up of many competing and conflicting groups and each of them defines itself through its distinctive way of life [34]. Therefore, in *White Teeth*, as a Muslim immigrant from Bangladesh, Samad Iqbal cannot reconcile with the English owing to his Eastern perspective and traditions, so he says: "I am corrupt, my sons are becoming corrupt, we are all soon to burn in the fires of hell" [19]. Similarly, Alsana objects the pressure of English culture upon her family: *"I am saying these people are taking my son away from me! They're Englishifying him completely! They're deliberately leading him away from his culture and his family and his religion"* [19]. Considering Bhabha's views about the conflicting relationship between the colonized and the colonizer, it is undeniable that the colonized people leaving their cultural values behind in the postcolonial Western societies and their adopting the culture of the West, the practice of mimicry, disturb the colonizer in a sense, because "[i]n mimicry the colonizer sees himself in a mirror that slightly but effectively distorts his image – that subtly and unsettingly 'others' his own identity" [35]. The cultural contradictions in the postcolonial period between the two parts resulted in the "in-between" position of the ex-colonized in the dominance of the Western norms. In this respect, the dominance of English culture, customs and lifestyle oppressed the immigrants who came to Britain in the post-war epoch; therefore, Smith aims at bringing various people together in order to display their efforts to live together despite their sufferings. In an interview by O'Grady, Smith highlights her interest in combining various cultures with one another and analysing the position of the hybrid [36].

Consequently, since Smith comes from a culturally mixed family as well, she is interested in people's origins and ethnic identities and focuses on this in *White Teeth* by shedding light on different understandings of different nations, which turned out to be a problematic issue in England after WWII. Applying Bhabha's concepts to the novel, the characters immigrating to London from the East reflect his ideas. Thus, the reflection of the multicultural English society in the novel shows that "[…] the postcolonial subject comes to proclaim the death of national

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literature" [37]; consequently, with the rise of postcolonialism, the condition of the "postcolonial subject" in cultural plurality was the issue analysed by many novelists, including Smith.

As observed throughout the analysis, in *White Teeth*, Smith portrays the interaction between the English and the immigrants in England in order to emphasize the cultural, religious and social differences between these people. Furthermore, she concentrates on the inner conflicts and sufferings of the immigrants due to their adaptation problems and reflects on the contradiction between the English and the Eastern cultures by creating characters with different social and cultural backgrounds. Thus, Smith deals with the immigrants' problems of acculturation and integration in England by dwelling on the emotional and psychological problems of both the first and the second generations. In this sense, while the first generation fears that they will lose their cultural roots as a result of their interaction with the English, the second generation is obsessed with adopting the English culture in order to be accepted by the English. As a consequence, the struggle between the first and the second generation of immigrants can be observed. In other words, not only the conflict between the English and the immigrants but also the difficulties between two generations of immigrant families draw attention in the novel. In this regard, Bhabha's postcolonial terms and concepts can be applied to the work. Smith demonstrates the conditions of a culturally mixed society in post-WWII England by stressing the cultural conflict between the English and the immigrants in the postcolonial English society.

5. Conclusion

In the light of the issues discussed in this chapter, it is clear that in postcolonial Western societies, in this case in England, one could recognize the cultural and social contradictions between the ex-colonized and the ex-colonizer. The conflict between the two parts caused divisions and disorder in these societies, as a result of which, particularly, the former colonized suffered due to their "in-between" status. In this regard, the novels analysed in this chapter, *The Enigma of Arrival* and *White Teeth,* can be regarded as prominent examples portraying the cultural trauma undergone by the ex-colonized in the postcolonial Western areas. The analysis shows that under the influence of E. Said's concepts of "Orientalism" and "otherness," H. Bhabha put forward his postcolonial theory with new terms and his postcolonial concepts can also be recognized in these novels.

The Enigma of Arrival, shedding light on the hybridity of an author trying to adapt into the Western culture in London and New York, illustrates the cultural contradictions of this isolated and alienated Trinidadian man with Indian heritage, like V.S. Naipaul himself. The story proves that it was cruel and challenging to be a hybrid in the postcolonial era. In *White Teeth*, the cultural distress of immigrants from Bangladesh in postcolonial London reflects the hardships experienced by the Easterners in the West and demonstrates the difficulty for immigrants to overcome their adaptation problems and the intergenerational difficulties. Similarly, Z. Smith's hybrid position can also be identified in the novel through the sufferings of the culturally excluded characters, who feel that they are the "other."

To conclude, both of the novels effectively highlight Bhabha's postcolonial concepts such as hybridity, otherness, cultural differentiation and ambivalence by putting emphasis on the cultural problems of immigrants torn between their own cultural values and the Western norms. "The cultural hybrid is therefore a complex building that both resembles and differs from the colonising agent" [38]. In *The Enigma of Arrival*, the hybrid character's feelings of isolation and otherness in the West come to the fore as a result of his inability to reconcile his own culture with the cultural norms of the West. In *White Teeth*, on the one side, the first-generation immigrants want to maintain their traditions but experience cultural adaptation problems, feel lost, isolated and alienated due to their desire not to leave their own culture behind in the West. On the other side, the second-generation immigrants suffer because of their conflicts with their parents—the first-generation immigrants—who complain about their children's devotion to the cultural notions of the West. Since the second-generation immigrants do not try to maintain their cultural heritage, they do their best to resemble the ex-colonizer, but because of their different backgrounds when they imitate the Westerners, they experience many difficulties and also suffer. It is obvious that the two novels describe similar difficulties experienced by immigrants and the authors of these works voice the identity problems of culturally split people in the postcolonial era.

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Settlement of Immigrants – Health Care Challenges

Chapter 3

Immigration and Food Insecurity: The Canadian Experience—A Literature Review

Diana Tarraf, Dia Sanou and Isabelle Giroux

Additional information is available at the end of the chapter

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Abstract

Canada is a popular destination for immigrants and integration of newcomers is an important strategy for its demographic growth and economic development. Food insecurity disproportionately affects newcomers in Canada; unfortunately, they occupy the lower end of the socio-economic spectrum and thus adding to the burden of socio-cultural challenges they are already facing. The high level of food insecurity contributes to poor diet quality and the rise in overweight and other chronic health conditions and therefore to the loss of healthy immigrant status. Indeed, statistical evidence, mainly of the overall Canadian population, demonstrates that individuals living in food-insecure households have higher rates of self-reported poor health and chronic health conditions. Therefore, understanding and properly addressing the factors associated with food insecurity among Canadian immigrants is crucial for an adequate integration of immigrants. This chapter suggests that an adequate and appropriate understanding of food security for Canadian immigrant populations requires consideration of a cultural perspective in addition to the traditional individual, household and community levels and the development of measurement tools to capture this cultural dimension. It is proposed the concept of cultural food insecurity encompasses the four usual dimensions (availability, accessibility, utilization, and stability) and a newly proposed fifth cultural dimension. Future research should aim at validating the relevance of this cultural perspective as a fifth pillar for food security and developing measurement tools to assess it.

Keywords: Canada, Acculturation, food insecurity, availability, accessibility, utilization, stability, cultural appropriateness, immigration, nutritional health

1. Introduction

Upon arrival to Canada, immigrants present fewer health risk, lower levels of disability as well as fewer chronic conditions compared to Canadian-born individuals [1, 2]. However,

their health status deteriorates with the number of years spent in Canada and converges to that on the native-born populations. For instance, it was noted that recent immigrants had fewer chronic conditions than Canadian-born individuals, but that there is a gradual decline in health status over time in Canada [2]. Also, the rate of obesity among immigrants was found to be substantially lower than their Canadian-born counterparts but increase with their duration of stay in Canada [3]. This trend among immigrants has been noted in several other western countries and has been called the "*healthy immigrant effect*" [4].

An extensive body of research has focused on exploring the "*healthy immigrant effect"* in Canada as well as in other western countries. A number of mechanisms contribute to this decline in health status, including diet and lifestyle changes, reduction of socioeconomic status, social exclusion, and a medical system that is suboptimal in culturally competent care. In terms of the impact of immigrants' diet on their health, food insecurity, if overlooked or not addressed enough, can compromise the nutritional and mental health of immigrants. Furthermore, food insecurity can have an effect on immigrants' diet and lifestyle changes, as they tend to converge to that of Canadian-born individuals.

The purpose of this chapter is to shed light on a number of issues that affect the food security situation of Canadian immigrants. As part of our research investigating the health of Canadian immigrants, we gathered data from peer-reviewed research and other reliable government publications in order to provide easy access to current evidence on these issues and to inform the development of policies and programs that address food insecurity issues experienced by Canadian immigrants.

2. Immigration to Canada in perspective

Canada is a popular destination for immigrants and their integration is a central strategy for the country's demographic growth and economic development. Since 1988, Canada has welcomed an average of 230,000 immigrants per year. In 2011, the immigrant population in Canada was approximately 20.6% of the total population, or roughly 6.8 million people. By 2031, it is expected that the foreign-born population in Canada will be over 25% of the population [5]. Immigrants to Canada come from over 200 countries, and are thus a tremendously culturally diverse group. This presents a number of challenges for culturally sensitive integration strategies, such as in the workplace, in the community, or in the healthcare context.

The majority of newcomers to Canada settle in urban areas. Predominantly, Canada's three largest metropolitan areas (Toronto, Vancouver, and Montreal) accounted for about two thirds (62.5%) of new arrivals. Combined, the three largest visible minority groups (South Asians, Chinese, and Blacks) accounted for 61.3% of the visible minority population in 2011 [6]. In Vancouver, Chinese were by far the largest visible minority group. On the other hand, Ontario was the province that received the highest number of immigrants each year and the majority of francophone immigrants settling outside Quebec (69%) [7].

Newcomers choose to immigrate to Canada for a variety of reasons, including world-class education, clean environment, safety and security, and better financial prospects. In fact,

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Canada performs very well in various measures of well-being compared to most other countries as given in the Organization for Economic Cooperation and Development's (OECD) *Better Life Index*, which allows the comparison of well-being across countries based on various essential topics [8]. Canada ranks above the average in housing, subjective well-being, personal security, health status, income and wealth, social connections, environmental quality, jobs and earnings, education and skills, work-life balance, and civic engagement.

With about 6.8 million immigrants living in Canada, there is no doubt that immigrants have an important economic effect and create cultural changes. A large and growing body of evidence into the economic impact of immigrants on their host countries has been conducted in developed countries. The evidence largely points to positive effects, including the growth and expansion of the skilled labor pool, significant contributions to research and innovation, as well as entrepreneurial activity and trade [9]. In fact, Canada's work force is aging and this demographic change points to impending labor shortages in the near future. Undeniably, labor shortages could become severe in every part of the country regardless of economic situations. Policy-makers across Canada have called for growing levels of immigration to help counteract the aging baby boomer generation.

Research on the economic impact of immigration supports the idea that immigration has reinforced the Canadian economy and local communities in numerous ways, especially by diversifying and enriching the labor pool. As of 2011, immigrant workers constituted 22% of the Canadian labor force and had accounted for 41% of growth in the Canadian labor force since 2006 [10]. Additionally, immigrants contribute to the tax base, invest in local business, create new businesses and jobs, innovate, and offer valuable trade and cultural ties with their home countries [11]. Furthermore, newcomers' cultures, including what they eat and the social activities in which they take part, tend to change over time to and gets closer to the Canadian culture.

3. Current situation of food insecurity among Canadian immigrants

3.1. Concept of food insecurity

The concept of food security was introduced in global debates in the mid-1970s, with a primary focus on food supply problems, more specifically, on the availability of enough foods to cover global and national needs [12, 13]. Since then, the definition of food security has considerably evolved from the global and national hunger and food crisis perspective to encompass food availability, access, and consumption at household level and its consequences on individual well-being over time.

The initial definition of food security was provided by the 1974 World Food Summit as:

> *"availability at all times of adequate world food supplies of basic foodstuffs to sustain a steady expansion of food consumption and to offset fluctuations in production and prices" [14].*

After a series of international consultations, the 1996 World Food Summit adopted a more careful redefinition that goes beyond the global supply and price perspectives to include economic accessibility and health dimensions at household and individual levels:

> *"Food security, at the individual, household, national, regional and global levels [is achieved] when all people, at all times, have physical and economic access to sufficient, safe and nutritious food to meet their dietary needs and food preferences for an active and healthy life" [15].*

The most commonly used definition is a slightly modified version proposed by the FAO in the State of Food Insecurity (SOFI) 2001:

> *"Food security [is] a situation that exists when all people, at all times, have physical, social and economic access to sufficient, safe and nutritious food that meets their dietary needs and food preferences for an active and healthy life" [16].*

Based on this SOFI 2001 definition, food insecurity therefore exists when people do not have adequate physical, social, or economic access to food as defined above. Household *food insecurity* is the application of this *concept* to the family level, with individuals within households as the focus of concern [12]. Households that are food insecure have trouble, or concern about, consistently accessing adequate and nutritionally adequate foods.

The definition of food security encompasses four dimensions: availability, access, utilization, and stability [17]. The availability dimension refers to the production and supply (including food aid) of sufficient quantities of food of appropriate quality to nourish the entire populations and is concerned with global, national, household, and individual levels. The access dimension includes both physical access and economic affordability of appropriate foods for a nutritious diet. While in many developing countries, food access mainly lies on productive capacities, accessibility in Canada is concerned with the economic ability of individuals and households to purchase food in the market system and is therefore dependent to the purchasing power. It is for this reason that, using a standard multiple-indicator measure of food security, Health Canada linked the issue to income-related food insecurity in Canada [18]. Utilization refers to the ability of individuals and households to make healthy food choices in their local environments and use the food procured in such a way that it meets their dietary needs. The utilization pillar requires nonfood-related inputs such as clean water, sanitation, and health care to reach a state of nutritional well-being where all physiological needs are met [17]. It also takes into account postharvesting management and processing, food safety, consumption patterns, dietary diversification, and intra-household distribution. The stability dimension refers the ability to ensure the above three dimensions at all times. The stability principle suggests that households and individual access to nutritious foods should not be compromised by any shock (economic crisis, natural and human-made disasters).

Most food security-related policies and program research have emphasized the first three dimensions namely access, availability, and utilization. Stability is often considered cross-cutting and therefore not well addressed as a stand-alone issue. Further, despite sociocultural perspective is well considered in the definition of food insecurity through food preferences, none of the four dimensions captures properly the cultural perspective. This cultural aspect is particularly important for some population groups in Canada such as Aboriginal people and immigrants who have some cultural relationship with foods [19]. In such situation, the issue of food insecurity is not only unavailability of or inaccessibility to foods due to lack of financial resources to procure them, but also culturally inappropriateness of available foods. Indeed, even if immigrants are not economically vulnerable, accessing home-country

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foods of their choice is challenging, creating individual worries or concerns about feeding their family. This specific feeling of food insecurity uniquely experienced by immigrants and Aboriginal people might account for the comparative high level of food insecurity in these subgroups of Canadian populations. Unfortunately, it is not captured by existing measurement tools. Therefore, the concept of cultural food security that was proposed for Aboriginal people should be expanded to Canadian immigrants and other population worldwide who are experiencing significant challenges to access food of their cultural preference. For the conceptualization of an adequate and appropriate understanding of this cultural perspective of food insecurity, a fifth dimension namely cultural appropriateness should be considered in addition to availability, accessibility, utilization, and stability. The dimension of cultural appropriateness will focus on the ability of newcomers to reliably access to their preferred home-country foods in the host country. Appropriate tools and indicators should be developed to measure this newly proposed dimension of food security. Examples of indicators could include concern or worries about not having these foods, traditional knowledge of these foods, access to home-country foods, safety and nutritional values of these foods, and perceived cultural values of these foods.

Plenty has been written about the significance of ensuring food security for everyone, since food is deemed a basic human right and a crucial condition for a population to be well-nourished and in good physical and mental health. Yet, this objective has not been entirely achieved for all members of society. In Canada and other developed countries, it is understood that food insecurity is strongly linked with household income and is a reality for many socio-economically vulnerable Canadian households. Food insecurity is understood to be a dynamic process, which can range in severity from uncertainty concerning food supplies, to reductions in the quantity and quality of food intake.

3.2. The situation among Canadian immigrants

In many developed countries, there are very high rates of stress, financial hardship, and food insecurity among refugees and other forced migrants. Unemployment, low income, and recent arrival are often associated with food insecurity among newcomers [20, 21]. Lack of savings or income places recent immigrant families at a higher risk of food insecurity in the first year following immigration, as many struggle to find a job and may face discrimination due to their race or/and their lack of permanent status [22]. In fact, more than half of all refugee families with children under 5 years reported food insecurity in some UK and US studies. In Toronto, Latin American immigrants were found to have a similar prevalence of food insecurity [23].

In 2011–2012, almost 1.1 million Canadian households experienced food insecurity and the prevalence of food insecurity was higher among recent immigrants (19.6%), compared with nonrecent immigrants (11.8%) and the Canadian-born population (12.4%). Many factors have been found to be linked to food insecurity among immigrants in Canadian cities. For instance, in Latin American immigrants in Toronto, three main correlates of food insecurity were found: social assistance as a main income, use of food banks, and limited literacy in English. More specifically, the prevalence of food insecurity increased as household income

decreased [24]. Households receiving provincial or municipal assistance as their main source of income are more vulnerable to food insecurity [23]. Furthermore, more recent immigrants (less than 1 year in Canada) experience higher levels of food insecurity compared with less recent immigrants (1–5 years in Canada; 84% vs. 33%). In addition, immigrants who are not fluent in English are more likely to experience food security [23].

All of these data suggests that if Canada wants a healthy and productive population, the issue of food insecurity needs to be addressed.

4. Food insecurity and health

Food is a fundamental determinant of health. The quantity and quality of the food we eat affects our health status, and our health is critical to productivity and prosperity.

Food insecurity in Canada is linked with higher rates of self-reported poor health and chronic health conditions, including depression, type 2 diabetes, heart disease, and greater stress [25]. Several studies have reported that food-insecure households are at risk of having monotonous and low-quality diets, reduced micronutrient intake, iron-deficiency anemia, and low intake of fruits, vegetables, and dairy products, particularly among women and youth [26]. A restricted budget, leading to the procurement of cheaper and more energy-dense foods is also a contributing factor to excessive energy intake and excessive weight gain [26]. Likewise, food insecurity is linked with poor diet and health among Canadian immigrants [27].

The following sections examine the relationships between food insecurity and nutritional intakes, health and well-being in Canada.

4.1. Food insecurity and nutritional intake

The first Canadian national study to assess the association between food insecurity and nutritional intakes was the 2004 Canadian Community Health Survey (CCHS) [28]. In this study, food-insecure women in the 19–30 and 31–50 age groups had lower intakes of dietary fiber. Moreover, food insecurity was linked with lower protein intakes across adult age and sex groups. Also, among males and females in the 19–30 age groups and among women in the 31–50 age groups, food insecurity was associated with lower consumption of fruit and vegetables. It was also found that food-insecure males and females over the age of 50 had lower intakes of milk than those who were food secure in the same age group. In all age groups, food insecurity was associated with inadequate intakes of magnesium and protein, and with folate, vitamin A, zinc, and vitamin C for certain groups [28]. Some groups of food-insecure children and teenagers in the 9–13 and 14–18 age groups had a high prevalence of inadequate intakes of protein, vitamin A, vitamin C, magnesium, and zinc, although results were not consistent across groups. Adolescents who were food insecure also had significantly lower intakes of fruit and vegetables than those who were food secure [28].

Furthermore, an analysis of the diets of 8938 youth aged 9–18 years from the 2004 CCHS suggested that low-income food-insecure girls had both lower milk consumption and vitamin

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D intake and a higher intake of sweetened beverages (such as pop and juice drinks) than low-income food secure girls [26]. Additionally, a recent study assessed the relationship of food insecurity to iron deficiency and stature in a sample of 292 school-aged Inuit children from Nunavik (Northern Quebec), who were followed for 10 years [29]. Food-insecure children were slightly more likely to have iron-deficiency anemia (a condition in which blood lacks adequate healthy red blood cells due to insufficient iron) and had significantly lower mean hemoglobin levels (a blood indicator of anemia) than those who were food secure [29], again pointing to the negative impact of food insecurity on the quality of diet and health of individuals.

4.2. Food insecurity and chronic health conditions

Food insecurity has been linked with higher rates of self-reported poor health and chronic health conditions, including depression, hypertension, type 2 diabetes, and heart disease [25, 30–34]. For instance, findings from a recent study which explored the associations between food security status (high food security; marginal, moderate, or severe food insecurity), dietary behaviors and intake, and health-related outcomes (body weight, quality of life, mood, peer relationships, and externalizing problems) in 5853 Nova Scotian grade 5 students [25] suggested that students living in households experiencing moderate or severe food insecurity had poorer diet quality, higher body mass index, and poorer psychosocial outcomes than students living in households classified as high food secure or marginal food insecure [25].

Another study that assesses the association between household food insecurity and overweight among 10- to 11-year-old children living in Quebec [35] found that girls who lived in food-insecure households were almost five times more likely to be overweight in comparison to girls who lived in food secure households. This may seem surprising, as one would think that individuals who are experiencing food insecurity would have less to eat and would consequently have less chance of being overweight. However, the quality of food is affected before the quantity, meaning those affected by food insecurity tend to consume more high-energy foods containing less nutrients [28]. It is well known that obesity increases the risk of serious health conditions such as type 2 diabetes [36], hypertension and cardiovascular disease [37], fatty liver disease [38], and some types of cancers [39]. Among the many factors that contribute to the increase in rate of obesity among Canadian immigrants is lifestyle nutrition transition, which is thought to be mediated by *acculturation* [40–42]. Since some immigrant groups who are already struggling with high unemployment, poverty, and mental distress are more likely to develop onset of these conditions at a younger age and has a lower BMI [43–46], it is important to understand the dynamics between immigration, food insecurity, and the food/diet changes upon settlement in Canada in order to develop tailored actions that will limit the onset of these poor health conditions in food-insecure immigrant households.

5. Immigration, acculturation, and food insecurity

Changes in dietary habits related to immigration are often referred as *dietary acculturation,* which is the process by which immigrants adopt the dietary practices of the host country.

There are various scales to measure acculturation, but the most commonly used by researchers in Canadian context is duration of stay in the host country [47]. Other measures, such as place of birth, country of origin, age at arrival in Canada, and language use or language proficiency are also commonly used [47]. These proxy measures consider acculturation as linear and unidirectional process, which excludes the possibility of multiculturalism and interaction between the host country and native country cultures. However, acculturation is a multidimensional and multidirectional phenomenon that takes different paths [48, 49]. Investigating francophone immigrants' experiences with food insecurity in Montreal [48], identified four models in the dietary acculturation process: assimilation followed by an adaptation phase, ethnocentrism, and integration.

The accommodation phase is a temporary situation experienced by an immigrant in the first 1–3 months upon arrival and is characterized by a full adoption of the host-country dietary habits and a temporary abandonment of home-country dietary habits [48]. Since s/he has limited knowledge of the host country context, lacks cooking skills, and does not have access to the native country foods and cooking equipment, the newcomer contents her/himself with whatever foods s/he finds. Therefore, the situation is more or less a temporary reasonable accommodation to a survival situation rather than a voluntary adoption (assimilation) of new habits. As the newcomer identifies the market places and groceries and starts interacting with other immigrants, s/he gradually accesses home-country foods which give him or her some time to adjust to the new context (adaptation). The dual access to both local and home-country foods offers an opportunity to create unique dietary patterns and to transition to the final dietary patterns of the newcomer.

When given the opportunity, immigrants attempt at first to reproduce home-country diet which is believed to be healthier [48]. In the long term, the home-country foods are gradually mainstreamed in the host-country diet, resulting in dietary patterns that balance foods from both home- and host-country culture. At this stage called integration, while enjoying the taste and social meanings of their home-country foods, immigrants become more familiar with and adopt host-country foods, creating a dietary mix which increases the diversity of the household diet. The attempt to maintain home-country diet is challenged by many factors including unavailability and affordability of home-country foods; lack of home-country ingredients and cooking equipment; time constraints for home-country food preparation; unavailability of nutrition value of traditional foods; the influence of neighborhood; etc. [47]. In some situations, where the newcomer has plenty of access to home-country foods, he can overvalue these foods while rejecting and/or despising the host-country foods, resulting in an ethnocentrism which can be temporary or permanent. This situation, also referred to as dietary enculturation, is more common in immigrants who arrive in Canada at older age and is less frequent in children who do not have enough dietary ties with home country and have little decision power on household diet.

Finally, there are situations where for different reasons, the immigrant decides to abandon home-country diet and fully adopts Canadian dietary patterns. This process is referred as dietary acculturation [47, 48] as the newcomer renounces his cultural dietary identity. Drivers of dietary acculturation include factors impeding home food consumption as discussed

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above, pre-immigration history, unfamiliarity with Canadian foods, grocery procurement patterns and cooking techniques, unawareness of Canadian nutrition discourse, communication barriers, social isolation, and financial insecurity. **Figure 1** summarizes the modified dietary trajectories of Canadian immigrants.

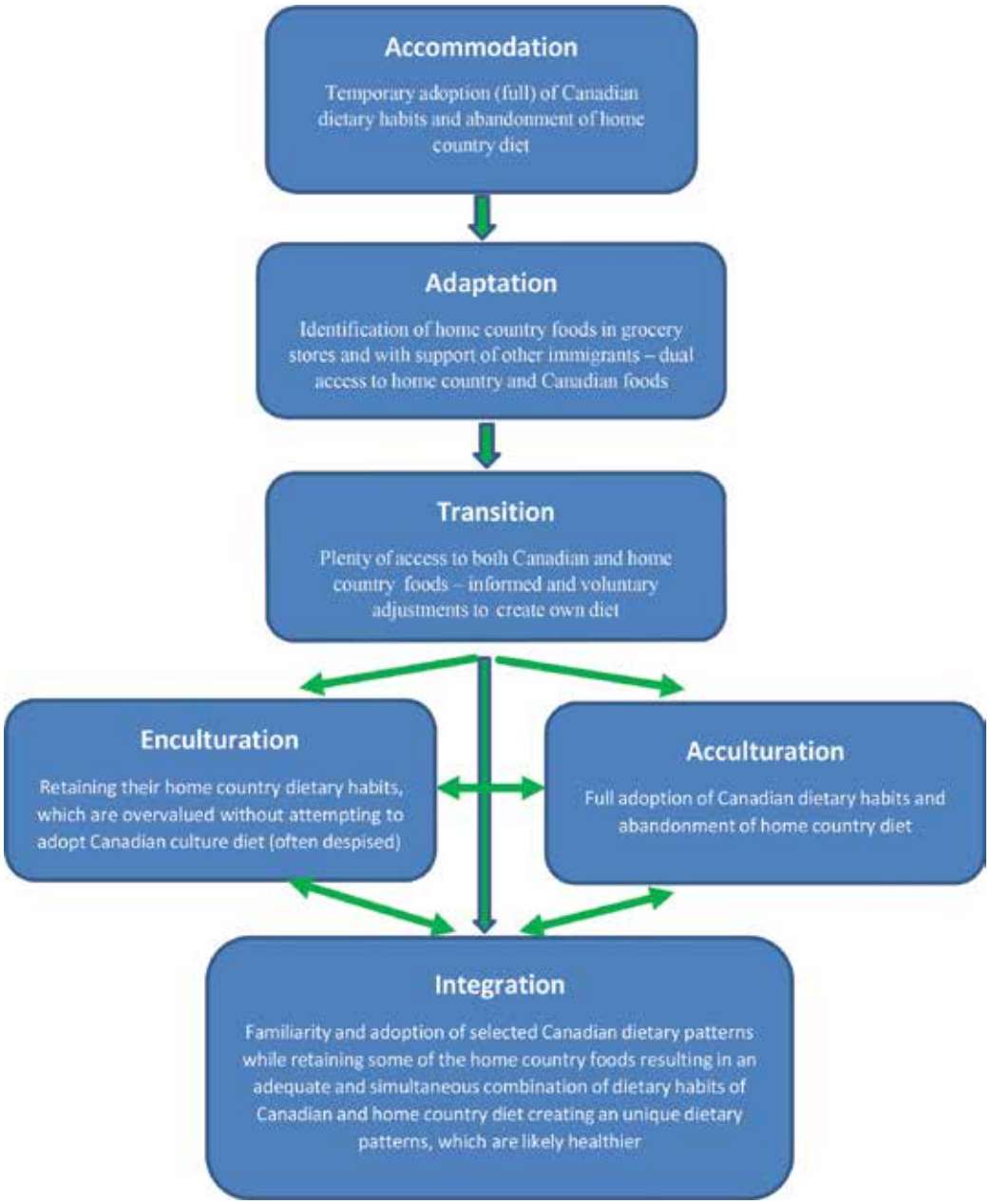

Figure 1. Dietary transition trajectories of Canadian immigrants.

Pillarela [48] reported that the dynamics leading to changes in dietary habits after migrating to another country are inevitable. However, the impact of these changes depends on the path and the degree to which immigrants maintain their former cultural identity as well as the extent to which they adopt the cultural practices of their new homeland. The potential conflict for immigrants to maintain their cultural diet while simultaneously adapting the dietary norms of their new country creates some stress and pressure to obtain home-country foods of their choice and thus increases the level of worries about not having enough foods of their cultural preferences [47, 50]. This type of food insecurity uniquely experienced by immigrants that is not caused by unavailability or inaccessibility of foods due to lack of resources to procure foods is often not captured by existing measurement tools. A similar observation was made for Canadian Aboriginal people by Power [19], who argued that there is a cultural consideration for Aboriginal people way of relating to their traditional foods, which impacts the four pillars of food security: access, availability, supply, and utilization. She therefore proposed the concept of cultural food insecurity to emphasize the importance of cultural inappropriateness for Aboriginal people of foods available in the Canadian market system [19].

6. Immigration and nutrient intake in Canada

A few studies have looked at immigrants' intake of nutrients compared to that of the nonimmigrant Canadian population. Overall, immigrants were at higher risk of insufficient calcium, iron, and protein intake [51]. This is especially true for those of Asian descent. Also, a long exposure to the Canadian culture was linked with an increased intake of fat and sodium by newcomers [50, 52]. However, some studies suggest the opposite. For example, one study involving older adult immigrants in London, Ontario found that keeping a traditional diet and consuming ethnic foods may be associated with an increased intake of salt, which was found to be two to four times the daily adequate intake for some individuals [53].

Nevertheless, most studies tend to show that immigrants' traditional diet, which is usually low in processed foods, is healthier than that of the typical Canadian diet [47]. This is especially true for immigrants of African and Haitian origins [54]. For example, a Canadian study found that French-speaking Africans living in Montreal had a tendency to maintain their home country's traditional diet, which had a significantly higher nutritional quality than the modern Canadian diet [54]. To determine the nutritional quality of the different dietary patterns, researchers used a variety of diet quality indexes (such as the "micronutrient adequacy" score [55], the "healthfulness" score [56], and the Healthy Eating Index [57]). A diet quality index is basically a measure, on a numeric scale, of the overall acceptability of food intake of an individual or population compared to dietary guidelines [58]. In the group of Africans in Montreal, participants who consumed a modern (or Western) diet had more than twice the risk of being resistant to insulin, which is a risk factor of type 2 diabetes, than those who consumed a traditional diet. Also, in another study, Punjabi women living in Toronto, Canada who kept consuming a traditional diet were described as having a healthier diet compared to a typical Western diet [59].

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It is important to note that healthy dietary patterns can only be followed if food is available, accessible, and desirable [54]. They are peripheral if people are in a state of chronic food insecurity.

7. Implications for policies and programs

Immigrants are vulnerable to food insecurity and the latter negatively impacts their health, therefore it is important to consider implications for community policies and programs. Data suggest the need to design community programs to raise awareness of the issue of food insecurity among this population. The alarming situation also calls for mainstreaming food security initiatives in development policies as well as strategy and programs aimed at a better integration of newcomers to Canada.

There are numerous policies that influence the financial resources of households, which in turn influence their food security status. In Canada, certain examples of relevant policies include those impacting social assistance rates, minimum wage, employment standards, affordable housing, child benefits, and affordable childcare. Policies and programs that specifically target community-level food insecurity include community kitchens, food skill development workshops, self-provisioning activities such as community gardens, and alternative food-distribution systems, as well as farmers' market options. Combating food insecurity through charitable food banks is another popular strategy in Canada. Food banks have seen a 23% rise in use between 2008 and 2013 across the country and a 19.6% rise in the number of people assisted in Ontario during the same period [60]. School- and community-based programs such as school breakfast and lunches have also been implemented in many areas. Unfortunately, school setting strategies are often short lived, as students will not have access to the programs in the summer and during holidays. Finally, federal policy responses such as increasing income from National Child Benefit payments and social assistance and indexing them to inflation can be greatly beneficial for low-income families, including many immigrant families [60].

On another note, we also suggest providing access to jobs that do not require speaking the English language but to employment opportunities where French is spoken. This would improve the financial situation of French-speaking immigrants to Canada and reduce their risk of food insecurity. Further, providing affordable and subsidized childcare, flexible working hours, and an adequate number of sick days will likely contribute to reduce employment barriers among low-income families, especially those receiving social assistance. To illustrate, if parents or caregivers cannot take the day off work to take care of their sick children, these children will have to be placed in daycare, which is often expensive for families on social assistance. Moreover, we highlight the need for food insecurity to be addressed in immigrant integration strategies (including evaluation and recognition of education in other countries) in order to improve the financial power of recent immigrants to acquire adequate, nutritious, and culturally acceptable foods.

Food insecurity is persistent in many Canadian households and disproportionately affects newcomers. Food insecurity poses a serious risk to the nutritional health and well-being of both adults and children. Without government policy involvements, it is likely that food-based responses

such as food banks will continue to try to fill the policy gap, even though evidence shows communities are unable to successfully respond to problems of household food insecurity.

8. Conclusion

This chapter looked at the food-security of immigrants from a Canadian perspective. National statistics and additional literature demonstrate that Canadian immigrants are experiencing high levels of food insecurity as compared to Canadian-born populations. There was evidence of a link between socio-economic status, food insecurity, diet quality, and health and this relationship mediates the vulnerability level of newcomers to the negative impact of food insecurity.

As Canada is a popular destination for immigrants and integration of newcomers is an important strategy for the country's demographic growth and economic development, understanding and properly addressing the factors associated with food insecurity among Canadian immigrants is crucial, but requires an adequate understanding of the immediate and root causes of the problem. This chapter outlined some evidence that suggest that for Canadian immigrant populations there is a need to consider a cultural perspective in food insecurity in addition to the traditional individual, household, and community levels and the development of measurement tools to capture this cultural dimension. From a programmatic perspective, the concept of cultural food insecurity is proposed, which encompasses a fifth pillar related to cultural appropriateness in addition to the four usual dimensions of availability, accessibility, utilization, and stability. Future research should aim at confirming the relevance of this cultural perspective as a fifth dimension of food insecurity, its potential contribution to the high rate of food insecurity in Canadian immigrants and developing measurement tools for its assessment.

Since strategies to improve food security of these populations are essential to improving their overall health and long-term wellbeing, future government and community-driven programs and policies targeting immigrants should take into account this cultural perspective of food access and preference. In the meantime, given the high level of food insecurity, food security interventions should be considered as upstream interventions alongside other measures for welcoming and integrating immigrants in order for them to successfully contribute to the Canadian social and economic development.

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Chapter 4

Health-Related Quality of Life (HRQoL) among Elderly Turkish and Polish Migrants and German Natives: The Role of Age, Gender, Income, Discrimination and Social Support

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Additional information is available at the end of the chapter

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Abstract

Background: Migration can negatively and positively influence health-related quality of life (HRQoL). Yet, little is known about the HRQoL of Turkish and Polish migrants and German natives.

In this study, the following hypotheses were formulated: (1) Elderly Turkish as well as Polish migrants show lower HRQoL than elderly German natives. (2) Age and gender significantly influence HRQoL; low income level and perceived discrimination decrease HRQoL; social support increases HRQoL.

Methods: A questionnaire (Short form-36 (Sf-36) and other questions) was distributed among 203 migrants and 101 natives. Univariate analysis was performed for the group analysis of the Sf-36 sum scores. Multiple linear regression was used to analyse the influence of the selected predictors on Sf-36 scores.

Results: (1) Scores of the Turkish migrants were significantly lower for Role Emotional (RE) and Mental Health (MH) compared to the natives. Scores of the Polish migrants were significantly higher for Physical Functioning (PF) and Vitality (VT) compared to the natives. (2) Age had an effect in both migrant and native groups, but only on PF and RE. Gender was a predictor of HRQoL among the migrants in PF, VT and MH. Migrants with a low income level reported their General Health (GH) and MH as poor. Discrimination had an influence on MH in the migrant groups. Social support was found to predict MH and GH in the German group.

Conclusion: Conclusion: Being a migrant does not necessarily entail poor HRQoL. Future research should investigate the health of migrants as well as focus on their health resources.

Keywords: , Turkish migrants, Polish migrants, German natives, health-related quality of life, quality of life, Sf-36

1. Introduction

According to figures of the German Federal Statistical Office [1], almost one of every five people in Germany has a migration background. Moreover, 15 million people out of 80.3 million people living in Germany have been granted migrant status. About 3.7 million (25.1%) are aged 50 years or older. In the same age bracket (28.9 million), elderly people of a migration background represent 13.0% of the total elderly population [1]. According to this source, it is expected that the number of elderly migrants will grow as young migrants also grow older.

Turkish migrants make up the largest share of the migrant population in Germany. The second largest group of migrants in Germany is Polish [2]. Hence, both Turkish and Polish migrants, aged 60 and above, form an important research group. Consequently, German social and health services are confronted by challenges in satisfying the needs of these people.

HRQoL is the perceived quality of an individual's health and daily life and therefore an important target of health promotion and disease prevention in older life. As a consequence, information regarding health and HRQoL of elderly migrants can serve to meet their needs in a socially and politically expedient way, develop strategies on health care issues and adapt or change policies.

Recent research regarding health of migrants often uses a problem-oriented perspective. The most important determinants which negatively influence the health of elderly migrants can be summarised as low socio-economic status (SES) due to bad working and living conditions [3] and situations which cause suffering post-migration—e.g. discrimination experiences [4].

Apart from this pathogenic approach, some researchers do not just focus on the disadvantages of migration, but also consider the benefits and opportunities it affords. In this regard, families and ethnic communities (seen as a support system) are often mentioned as being important for success in life [5].

Surprisingly, however, research on health and in more detail on HRQoL of elderly migrants, such as the elderly Turkish and Polish population in Germany, is still scarce and insufficient data have been generated, with only a few studies being published [6–8]. Moreover, findings often do not compare the results of different, especially elderly, migrant groups with each other. In view of the paucity of studies, the aim of this study was to obtain information on the HRQoL of elderly Turkish and Polish migrants as well as on elderly native Germans.

2. Migrants in Germany

The German Federal Statistical Office reported that almost every fifth person in Germany has a migration background, i.e. 18.9% of the total population in Germany of 80.3 million [1]. People with a migration background in Germany come predominantly from Turkey (17.9%), followed by Poland (13.1%). First generation migrants are an ageing population in Germany. In fact, according to the Statistical Office [9], about 1.4 million migrants are aged 65 and above.

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In addition, there are about 2.4 million migrants aged between 50 and 64. Compared with native people in the same age group (15.1 million aged 65 and above; 13.9 million aged 50–64), this number of people represents a substantial part of the total population. As a whole, the numbers of elderly migrants in both categories will increase further in future since the influx of Turkish and Polish migrants is decreasing.

Most Turkish migrants came to Germany between 1955 and 1973 [10]. In order to regulate this migration, the Federal Republic of Germany and Turkey signed the 'agreement for the recruitment of Turkish workers for the German labour market' in 1961. Most Turkish workers were actively hired by the German Federal Labour Office to work in German factories and in the service sector [11]. These the so-called guest workers served as means to relieve the German economy from the labour shortage during the 'economic miracle' [12]. Contrary to initial plans, most of these guest workers and families decided not to return to their home countries but took advantage of better living conditions in the host country, e.g. advantages of the health or educational system [13].

The second major group of migrants came from Poland and other Eastern European Countries as well as from the former Soviet Union. A major part of them—more than 3.9 million people—came to Germany after 1945 as 'resettlers', or after 1992 as 'late repatriates'. Most of these migrated after the fall of the 'Iron Curtain' [14], during a time when these regions were governed by Germany. After the Second World War, many of these ethnic Germans and their children endured forced resettlement and suffered ethnic discrimination in Eastern Europe or in the former Soviet Union [14]. Others faced economic hardship. Having a German background, they were allowed to remigrate to Germany and to receive German citizenship [15]. In consequence, many moved to Germany in order to improve their overall prospects and intended to stay in Germany on a long-term basis. Most of them have since been naturalised or hold 'dual citizenship' [16].

3. The health situation of migrants

Since migrants' health is often seen from a problem-oriented perspective [5, 17], various determinants are considered, which might have a negative impact on health. It seems inappropriate to see migrants' health only in relation to problems and conflicts. In this regard, Eichler [5] recommends combining a pathogenic approach with a salutogenic approach [18], that is, to relate 'trouble-spot' components with social determinants, which might positively affect the health of migrant populations. Consequently, the benefits of migration should be considered when investigating the health and quality of life of elderly migrants. There are determinants that have a positive influence on migrants' health such as strong family and ethnic networking [19].

The most reported determinants of the health of elderly migrants can be categorised as socioeconomic status (SES; e.g. income), psychological aspects (e.g. discrimination) and social networking (e.g. social support). These are described for Turkish and Polish migrants in the following.

3.1. Socio-economic status as a determinant of health and HRQoL

A key socio-economic factor influencing elderly migrants' health negatively is that of low income and the concomitant risk of poverty [20]. The link between a low SES and illness and HRQoL has been found in numerous studies [21].

Compared with native Germans, Turkish migrants rarely have adequate education or access to further education and therefore often work in places that are physically and psychologically detrimental to health. They often experience unemployment [22]. Data from the Statistical Office [20] confirm these findings. It shows that elderly Turkish people generally have a much lower monthly net-income and fewer assets than comparable elderly people without a migrant background. Studies have found that older people with a Turkish background do not have generally poorer health than native Germans, but they often suffer from ill health if they have experienced low SES and poor working conditions during their working life [23].

Wiking et al. [24] showed in a cross-sectional study of migrants from Poland ($n = 840$) that the risk of poor self-reported health could be explained by educational status and economic resources. Compared with Turkish migrants, who were mostly expected to stay in the host country only temporarily but decided to remain, most Polish migrants who come to Germany are regarded as ethnic Germans and are allowed to stay permanently [25]. Often they have received German citizenship and have a higher educational level relative to the low educational level of most Turkish migrants—which incurs a positive effect on their health. Polish migrants can face limited job opportunities because their educational qualifications are often not accepted.

3.2. Discrimination as a determinant of health and HRQoL

Studies exploring the relationship between discrimination and the health of migrants are rare or they are focused on migrants aged below 60 [26]. Psychological stress and mental health problems were reported for migrants relating to the process of acculturation and experiences of discrimination [23].

Turkish migrants in Germany may be more vulnerable to depression. Mohammadzadeh and Tempel [27] reported stressful situations, like trouble with agencies, intercultural conflicts and generational conflicts of older (aged 60 and above) Turkish migrants in their everyday life. The feeling of emptiness and its relation to poor psychological health was shown among first-generation (born in Turkey and migrated to Germany) and second-generation (born in Germany to migrant parents) Turkish migrants [28].

Psychological problems have been reported to play a major role in the health of Polish migrants. It has been shown, for example, that migrants (Polish as well as Turkish) experience stress as a consequence of the migration process and circumstances faced as part of their residence in Germany. These include deprivations and discrimination [29] during the adaptation process. This can have negative physical and psychological effects [30] and consequently decreases HRQoL. A study by Merbach et al. [31] shows that Polish migrants experience more depression and anxiety symptoms than the German host population. In this regard, the intention to assimilate socially and the perception of discrimination along with

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this intention have a significant influence on health, while adequate German language skills and success of assimilation in Germany contrast this negative picture. In particular, Polish migrants suffer from discrimination in their workplace and in the media, which report judgemental stereotypes [29].

3.3. Social networking as a determinant of health and HRQoL

Social networks act in health-promoting ways [19, 30], and social participation has a positive effect on the health behaviour of older people as it can improve compensating and coping strategies, help to establish self-esteem and decrease social isolation and depression [30].

The Federal Ministry for Family, Seniors, Women and Youth (Bundesministerium für Familie, Senioren, Frauen und Jugend, 2006) [32] particularly mentioned the potential of social networks of elderly Turkish migrants as a model for the elder generation. Social networking might not only be limited to social areas in the host country but also be extended to social spheres in the home country. Elderly Turkish and Polish migrants live 'transnational' [33, 34], which provides for them social contacts with different people, communities and organisations across national boundaries. In this respect, Krumme [34] differentiated between different categories of resources. These include resources like (grand-) children and friends as well as experiences of familiarity in both countries.

4. HRQoL of Turkish and Polish migrants and German natives – the study

Health is an important domain of quality of life (QoL). QoL consists of health domains such as the social, psychological and physical, in addition to the individual's objective health status [35].

The aim of this study was to examine and analyse comparatively the multidimensional and subjective health-related quality of life (HRQoL) of elderly Turkish and Polish migrants and German natives. This raised the question of whether differences between these groups are observable when it comes to HRQoL, and whether the determinants of age, gender, income, discrimination and social support do influence HRQoL.

The HRQoL model proposed by the Sf-36 [36] was of primary interest in this study. This model includes eight dimensions, i.e. physical functioning (PF), role physical (RP), bodily pain (BP), general health (GH), vitality (VT), social functioning (SF), role emotional (RE) and mental health (MH)) which are related to a physical (PC) and a mental (MC) health component (see **Figure 1**).

Two research questions and hypotheses were formulated for this study:

1. The first research question considered whether there are **differences in the HRQoL** of elderly Turkish migrants, Polish migrants and German natives. This was tested by checking for significant differences between the eight Sf-36 sum scores (calculation of sum scores for each of the eight dimensions, followed by statistical analyses (ANOVA and Bonferroni post hoc test). The hypothesis assumed that elderly Turkish as well as elderly Polish migrants show poorer HRQoL than elderly German natives.

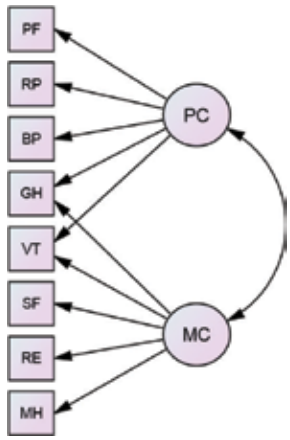

Figure 1. The Sf-36 model of health-related quality of life (HRQoL). Source: Ware et al. [36].

2. The second question and hypothesis focused on possible **predictors influencing the HRQoL** dimensions. The second research question was whether age, gender, income, discrimination and social support significantly influence the HRQoL (with respect to the Sf-36 dimensions) of elderly Turkish and Polish migrants and German natives and if so, what kind of impact they have (positive or negative). This was tested using multiple regression analysis, where the Sf-36 dimensions were the dependent and the five predictors were the independent variables. The hypotheses were as follows: (1) age and gender significantly influence HRQoL; (2) a low income level decreases HRQoL (the lower the income level, the poorer the HRQoL); (3) perceived discrimination decreases HRQoL (the greater the perceived discrimination, the poorer the HRQoL); and (4) social support increases HRQoL (the more social support received, the better the HRQoL).

5. Materials and methods

Approval for the study was granted by the University of Applied Sciences Hamburg (HAW) and by the ethics committee of the University of the West of Scotland (UWS).

5.1. Study participants

A cross-sectional study design, which included interviews with 304 persons (100 with Turkish, 103 with Polish and 101 with German participants) was used to answer the research questions. The interviews were conducted in the appropriate native languages (interviewers with German and Polish or Turkish language skills) in the period from February 2011 to August 2011 (Turkish participants) and in the period from October 2011 to June 2012 (Polish and German participants).

The participants in this study had to meet certain criteria for inclusion: two of the three groups (Turkish and Polish) had to have first-hand migration experience. The participants had to be

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at least 60-year old. The participants had to live in selected districts of Hamburg (named Wilhelmsburg, Billstedt, Altona-Nord, Altona-Altstadt and Harburg), because the proportion of migrants is particularly high in these districts. In the case of German participants, the surveys also took place in these districts to ensure greater comparability. The participants did not live in nursing or senior homes and did not require professional nursing care, because having professional support in daily life may result in a different health status and therefore a different HRQoL.

5.2. Recruitment of participants

The recruitment of participants included promotion in a brochure and on a website, but these proved ineffective. The most effective recruitment method was to request participation directly, face-to-face. Turkish participants were located in Turkish facilities, in mosques, in Turkish cafés and on the street, where they spend their leisure time. Polish migrants were recruited in two Catholic churches, in cultural facilities, in cafés, in Polish grocery stores and on the street. German participants were found in cafés, in grocery stores and on the street. In addition, participants were recruited using the snowball method (family members or friends of the interviewers and family members or friends of the participants). **Table 1** gives an overview of the recruitment process for Turkish migrants, Polish migrants and German natives.

	Group		
Recruitment place	**Turkish migrants** $n = 100$	**Polish migrants** $n = 103$	**German natives** $n = 101$
Relatives, acquaintances	49	21	5
On the street	24	0	63
Facilities:			
Intercultural institution, meeting place	7	10	10
Store, bakery, Café, market	2	4	17
Mosque	14	0	0
Religious community	4	0	0
Church	0	68	6

Absolute numbers of participants.

Table 1. Overview of recruitment process for each group.

5.3. Data collection

The Turkish study interviews were undertaken in different locations, at a friend's house or in the participants' homes. The Polish interviews mostly took place in the parish hall, in cultural facilities or at the participants' houses. The German participants were mostly interviewed on the street or in various public locations (e.g. bakery, café). To ensure that migrants with poor

	Group		
Interview venue	**Turkish migrants n = 100**	**Polish migrants n = 103**	**German natives n = 101**
Home	52	78	13
On the street	5	0	15
Facilities:	0	0	0
Intercultural institution, meeting place	5	9	11
Store, bakery, Café, market	26	5	62
Mosque	12	0	0
Religious community	0	0	0
Church	0	11	0

Absolute numbers of participants.

Table 2. Overview of interview venues for each group.

German language skills could adequately reply to the questions, all participants were given the opportunity to answer in their native language (Turkish, Polish or German). **Table 2** gives an overview of the locations where the interviews were carried out.

5.4. Study instruments

This study was carried out with a questionnaire composed of the Sf-36 [37], which measures the HRQoL, and questions concerning the interviewee's income, experience of discrimination and social support. In addition, sociodemographic and socio-economic data were reported.

The Sf-36 is a generic instrument with 36 items and eight dimensions, which are converted to values between 0 and 100 (sum scores), with 100 representing the highest and 0 the lowest level of HRQoL. The Sf-36 v.2 instrument, its components, dimensions and items are shown in **Table 3**.

Personal income was determined according to the self-reported income per capita. The following question was asked: 'What is your monthly net income (after taxes and health and social contributions)?' Income was reduced from an original eleven categories to five categories for better clarity (not specified/unknown, income <500, income 500–1500, income 1501–2500 and income 2501–4500).

Discrimination experiences were assessed by asking the question: 'Did you feel treated differently because of your origin in your neighbourhood or at work or when looking for employment?' and could answer with: <yes, several times>, <yes, once>, <never>, <not at all>.

The questionnaire on social support—short form (German: 'Fragebogen zur sozialen Unterstützung—Kurzform' (F-SozU K-14) is an instrument for measuring general, perceived

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Component	Dimension	No. of items	Items
Physical	Physical functioning (PF)	10	Vigorous and moderate activities, lift, carry groceries, climb several flights, climb one flight, Bend, kneel, walk mile, walk several blocks, walk one block, bath, dress
	Role physical (RP)	4	Cut down, accomplished less, limited in kind, had difficulty
	Bodily pain (BP)	2	Pain—magnitude, pain—interfere
	General health (GH)	5	Sick easier, as healthy, health to get worse, health excellent
Psychological	Vitality (VT)	4	Pep/life, energy, worn out, tired
	Social functioning (SF)	2	Social—extent, social—time
	Role emotional (RE)	3	Cut down time, accomplishes less, not careful
	Mental health (MH)	5	Nervous, down in dumps, peaceful, blue/sad, happy

Table 3. The Sf-36 instrument.

social support [38]. It includes 14 items asking about the social support experienced by the respondents. The content addresses emotional support (e.g. being liked by someone, to share feelings with others), practical support (e.g. having someone who takes care of the apartment, to borrow things from) and social integration (e.g. having friends, having similar interests to others). The results of the F-SozU K-14 are represented by scale values (total of items divided by the numbers of items). The higher these values are, the higher the interviewees perceive their level of social support.

5.5. Statistical analysis

All data were entered and analysed using SPSS version 21. Descriptive statistics were reported as means and standard deviations (means + SD), absolute frequencies and percentages. Statistical significance was set at an alpha level of $p < 0.05$.

The analysis of the Sf-36 data was based on sum scores for each of the eight dimensions. All dimensions were converted to values between 0 and 100 to permit easier comparisons. The scale scores can range from 0 to 100, with 100 representing the highest and 0 the lowest level of HRQoL. All eight dimensions were checked with quantile-quantile plots for normal distribution. As the assumption of normal distribution was confirmed, ANOVA was used to examine whether there were differences between the groups. The Bonferroni post hoc test was used to determine differences between Turkish migrants, Polish migrants and German natives.

The impact of age, gender, discrimination and social support on selected dimensions of the Sf-36 was calculated using multiple regression analysis.

6. Results

6.1. Participants' characteristics

The demographic characteristics of the sample are shown in **Table 4**. A total of 304 participants responded to the questionnaire (100 Turkish migrants, 103 Polish migrants, 101 German natives). The mean age of the study group was 68.3 + 6.9 (range 60–89). Thirteen Turkish participants did not provide their age. More than half (58.2%) of the sample was female and 41.8% was male. All Turkish participants stated Turkish as their native language. Polish participants named two options: first, language Polish and German, which means that they indicated Polish as their first native language and German as their second native language. Second, language German and Polish, which means that they indicated German as their first and Polish as their second native language.

	Turkish *n* **= 100**	**Polish** *n* **= 103**	**German** *n* **= 101**
Age (years)	*n* = 87		
M[1]	65.6	68.9	69.9
SD	4.7	7.3	7.4
Max	79	83	89
Citizenship (% (abs.))			
Yes	31.0% (31)	83.5% (86)	100% (101)
No	68.0% (68)	16.5% (17)	–
Not specified	1.0% (1)	–	–
Native language (% (abs.))			
1. Turkish	100 % (100)	–	–
2. Polish	–	67.0% (69)	–
3. Polish and German		13.6% (14)	–
4. German and Polish	–	2.9% (3)	–
5. German	–	16.5% (17)	100% (101)

Notes: M, mean; SD, standard deviation.

Table 4. Background demographics of study sample.

Table 5 shows socio-economic data of participants. 11.0% of the Turkish women and men stated that they never went to school. In contrast, all other participants had at least some school education. Polish participants attended school for more than 12 years (45.6%). More Turkish than Polish or German participants reported not having a formal professional education. Only Polish and German groups stated having a monthly personal income >2.501€, however, only 2 and 3 men reported this income.

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	Turkish $n = 100$	**Polish** $n = 103$	**German** $n = 101$
Education (% (abs.))			
Not at all/none	11.0% (11)	–	–
1–5 years	55.0% (55)	–	1.0% (1)
6–8 years	19.0% (19)	26.2% (27)	47.5% (48)
9–11 years	12.0% (12)	28.2% (29)	38.6% (39)
>12 years	3.0% (3)	45.6% (47)	10.9% (11)
Not specified	–	–	2.0% (2)
Professional education (% (abs.))			
Yes	19% (19)	–	78.2% (79)
No	64.0% (64)		21.8% (22)
Not specified	17% (17)		-
Personal income (% (abs.))			
<500€	13.0% (13)	21.4% (22)	21.8% (22)
500–1.500€	67.0% (67)	55.3% (57)	50.5% (51)
1.501—2.500€	6.0% (6)	14.6% (15)	17.8% (18)
>2.501€	–	1.9% (2)	3.0% (3)
Not specified/unknown	14.0% (14)	6.8% (7)	6.9% (7)

Table 5. Socio-economic data of study sample.

6.2. Assessment of the Sf-36 sum scores

The values were calculated for each national group and each health dimension [physical functioning (PF), role physical (RP), bodily pain (BP), general health (GH), vitality (VT), social functioning (SF), role emotional (RE) and mental health (MH)]. ANOVA results indicate significant differences in five of the eight dimensions. The mean scores of the Sf-36 dimensions for participants are presented in **Table 6**.

For PF Polish migrants scored significantly higher than German natives, for GH Polish migrants had higher scores than Turkish migrants, and vitality of the Polish group was higher than that of both other groups. In addition, RE as well as MH were higher in the German group than in the Turkish group but did not differ significantly from the Polish group.

6.3. Predictors of the Sf-36 dimensions

When the above-mentioned five predictors were included in the regression analysis for the migrant and native groups, the results for the dimensions were as follows:

Values	National group	Physical functioning (PF)	Role physical (RP)	Bodily pain (BP)	General health (GH)	Vitality (VT)	Social functioning (SF)	Role emotional (RE)	Mental health (MH)
Valid (*n*)/ missing (*n*)	Turkish	99/1	100/0	99/1	99/1	99/1	100/0	100/0	99/1
	Polish	103/0	103/0	103/0	103/0	103/0	103/0	103/0	103/0
	German	101/0	101/0	101/0	101/0	100/1	101/0	93/8	100/1
Mean (SD)	Turkish	66.44 (26.67)^{ab}	62.15 (31.52)	38.99 (27.99)	49.31 (20.14)^{a}	49.12 (20.26)^{b}	50.13 (9.65)	64.33 (32.91)^{a}	59.56 (19.97)^{a}
	Polish	73.64 (20.81)^{a}	67.66 (25.45)	35.63 (28.95)	56.06 (17.11)^{b}	60.19 (21.35)^{a}	48.91 (12.76)	72.65 (25.47)^{ab}	66.02 (19.06)^{ab}
	German	63.27 (23.41)^{b}	63.12 (26.32)	32.49 (27.40)	53.22 (20.24)^{ab}	44.06 (20.15)^{b}	47.40 (7.14)	78.49 (22.77)^{b}	67.40 (19.44)^{b}
ANOVA	F-value	5.131	1.137	1.337	3.135	16.324	1.823	6.503	4.595
	(Sign.[1])	*	n.s.	n.s.	*	***	n.s.	**	*

Summary of contents of SF-36 health scales.

Physical dimension: PF = ability to perform daily physical activities, e. g. walking, running, lifting, and other moderate physical efforts; RP = extent to which physical health limits work or daily activities. The higher the sum scores, the lower the extent to which physical health limits work/daily activities; BP = intensity of pain and its interference with normal activities. The higher the sum score, the lower the intensity of pain and its interference with activities (the absence of pain); GH = personal evaluation of general health status, presently and in the future.

Mental dimension: VT = personal evaluation of energy, etc.; SF = extent to which physical health or emotional problems interfere with normal social activities. The higher the sum score, the lower the extent to which physical health or emotional problems interfere with normal social activities; RE = extent to which emotional problems limit work or daily activities. The higher the sum score, the lower the extent to which emotional problems limit work or daily activities; MH = personal evaluation of mental health.

Significance; $p < 0.05$*, $p < 0.01$**, $p < 0.001$***, n.s. = not significant. ^{a,b} : same superscripts indicate that the means are not significantly different between the corresponding national groups; groups that do not share the same superscript are significantly different (Bonferroni, $p < 0.05$.

Table 6. Comparison of Sf-36 scores of (a) Turkish elderly, (b) Polish elderly, and (c) German elderly, including mean with SD and possible significant differences.

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Dimension	Group	Independent variable	Standard. coefficient (Beta)	T	Sig.
Physical functioning	Migrants (n = 166)	Age	-0.270	-3.517	0.001
		Gender	-0.169	-2.237	0.027
	Natives (n = 93)	Age	-0.279	-2.913	0.009
General health	Migrants (n = 166)	Income	-0.204	-2.552	0.012
	Natives (n = 93)	Social support	0.258	2.202	0.030
Vitality	Migrants (n = 166)	Gender	-0.180	-2.302	0.023
	Natives (n = 92)	Income	-0.358	-3.197	0.002
Role emotional	Migrants (n = 167)	Age	-0.160	--2.022	0.045
	Natives (n = 85)	Age	0.270	2.385	0.019
Mental health	Migrants (n = 166)	Gender	-0.159	-2.055	0.041
		Income	-0.164	-2.083	0.039
		Discrimination	0.165	2.055	0.041
	Natives (n = 92)	Income	-0.225	-2.195	0.031
		Discrimination	0.094	1.009	0.316
		Social support	0.383	3.664	0.000

Table 7. Multiple linear regression: significant variables predicting Sf-36 dimensions in migrants and German natives.

Age and gender were found to be significant predictors of physical functioning (PF) in elderly Turkish and Polish migrants: PF decreased with increasing age (the higher the age, the lower the PF scores). In addition, males showed better HRQoL compared to females. Income, perceived discrimination and social support did not significantly predict PF. In the German group, only age turned out to be a significant predictor of decreased HRQoL: PF decreased with an increase in age (the older the participants, the more their PF decreased).

Significant differences in general health (GH) were revealed between migrants and natives. This could be due to the fact that the significant (influencing) variables were different for the two groups. The analysis revealed a significant relationship between income and GH (the lower the income level, the poorer the GH status). In addition, the analysis only showed a significant relationship between social support and GH for the German natives only. In this case, GH increased in relation to an increase in social support in daily life.

With the elderly migrants gender played a role in vitality (VT): VT was found to be poorer in females than in males. Within the group of German natives, VT was found to be poorer in participants who reported having a low income level, which was in contrast to the migrant groups.

When the predictors were included in the regression analysis, a reduction in the emotional aspect (role emotional—RE) of HRQoL was associated with age (the higher the age, the lower the RE scores) in the migrant group. The responses related to age (age significantly influences

RE) was different in all groups, this is because age was positively associated with their RE (the older the person, the better the RE) in the German natives group.

Differences in mental health (MH) were found between German natives and migrants in terms of gender (**Table 7**). In this dimension, gender played a significant role in the migrant groups, with women showing poorer MH than men. Discrimination was found to predict MH in the group of migrants (the higher the perceived discrimination, the better their MH). Social support was found to improve the MH of German natives (the higher the level of social support, the better their MH). However, income was found to predict MH in both groups (the lower the level of income, the poorer the MH of the individuals).

7. Discussion

To the best of our knowledge, this was the first study assessing HRQoL among elderly Turkish and Polish migrants and German natives [39]. The hypothesis was that being a migrant is associated with disadvantages that lead to a poorer HRQoL, expressed by Sf-36 sum scores, compared to natives. However, the Sf-36 consists of eight dimensions and the hypothesis was confirmed in only two of the eight dimensions (elderly Turkish migrants show lower sum scores in RE and MH compared to German natives).

The findings that some dimensions of HRQoL of migrants are poorer than that of natives confirmed the findings from previous studies showing that the HRQoL of Turkish and Polish migrants was lower than that of native Germans in Physical Functioning [40]. The authors of this study suggested that this was related to limitations in daily activities that corresponded to increasing age. However, the authors also mentioned that elderly migrants face several health disadvantages related to working and housing situations and physical health problems due to their living situation relating to migration. Another study explained the moderate quality of life (QoL) of Turkish migrants compared to a Turkish population living in Turkey as the result of differences in age, marital status and education [6]. Berdes and Zych [8] showed better QoL of Polish American elderly compared with Polish elderly migrants. They explained this as being the result of 'vital aging' in an 'American social construct' (page 393), which implies better access to material goods and health care, and adherence to healthier life styles.

The current study showed lower average scores for the dimensions of role emotional and mental health within migrant groups. These dimensions cover mental health aspects. It was not possible to find the literature that discussed differences in these dimensions among migrants and native Germans and how to explain these. But it is assumed that differences are explained at least in part by culture. Differences can also be explained by the fact that different predictors are relevant for each of the national groups. Therefore, variables, such as the socio-economic status, may influence this multidimensional health construct.

The predictors age, gender, income, discrimination and social support were found to be significantly different between the different national groups.

Age was found to predict RE and PF in both the migrant and German group. Generally speaking, age had a negative impact on these two dimensions, with one exception: increasing age

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was associated with higher RE in the German group. Elderly populations were often found to show poorer health and HRQoL than younger age groups. Therefore, the results are partly consistent with other results showing that HRQoL decreases with age. These findings support those of Wiking et al. [24], which showed that the risk of poor self-reported health was primarily associated with age in the group of old migrants from Turkey and Poland. Lamkaddem et al. [41] found that the age of Turkish migrants was a significant predictor of physical health. Bayram et al. [6] compared the QoL of Turkish migrants living in Sweden and in their home country and attributed the moderate QoL of the Turkish migrants to age. Age differences in PF, BP and MH were also reported by Knurowski et al. [7]. This explains the differences in self-rated health with respect to bodily pain, vision abilities and depressive symptoms. The findings from this study also support the assumption of Morawa and Erim [42] as well as Wiking et al. [24] in that differences in QoL are not necessarily between migrants and non-migrants but rather between age and gender groups. One possible explanation for poorer HRQoL with increasing age could be that physical and mental health problems usually arise as part of the natural ageing process.

This study has shown that a significant negative association existed between gender and HRQoL. Women with a migration background were shown to be disadvantaged in relation to the dimensions of PF, VT and MH.

The finding that women's HRQoL is poorer than that of men has been confirmed in various studies. Bayram et al. [6] found the QoL of male migrants to be higher than that of female migrants, however, reasons for this were not given. Golicki et al. [43] showed that the percentage of Polish female respondents reporting problems such as pain, discomfort, anxiety and depression was considerably higher compared to Polish men. In another study, Turkish women living in Germany indicated poorer HRQoL than Turkish men living in Germany [42]. Wiking et al. [24] showed that the risk of poor self-reported health was five times higher for Turkish and Polish women living in Sweden.

One possible explanation for these gender differences could be that an understanding of the impact of migration on women's health has been neglected in the past. In addition, it was usually men who migrated for economic reasons. The migration of Turkish women to Germany was mainly the result of changes to German government policy allowing family reunification [44]. Therefore, these women did not have the same social status as men and for the most part arrived independently of their families. Another explanation could be that migrant women are particularly affected by health inequalities and inequities [45].

The link between a low SES and HRQoL has rarely been investigated in previous studies [46]. But, the current trends suggest that the poorer health and HRQoL of migrants compared to Germans is because they are disadvantaged in terms of their SES. In this study, income was the only significant negative predictor of GH and MH in Turkish and Polish migrants.

This presents a challenge in the context of migration studies because a low socio-economic profile per se does not result in poor HRQoL. Rather, a low SES correlates with other determinants of migration, e.g. poor working conditions, and low educational level, which can influence HRQoL. This present study supports the hypothesis that the HRQoL of migrants

is poorer due to low income in only two of the eight dimensions. This indicates that income alone cannot be taken as a sole predictor of HRQoL.

It was shown that discrimination only had an influence on the MH of the Turkish and Polish migrants. Discrimination is often experienced by minority groups [47] and several studies have shown that it has a negative impact on the HRQoL of migrants. Morawa and Erim [42] as well as Wiking et al. [24] found this for both Turkish and Polish migrants. In addition, self-rated discrimination was associated with an increased number of unhealthy days, disability days, poor self-reported health and poor HRQoL among diverse groups (Whites, Blacks, Latinos) [48]. Wang et al. [49] recommended reducing discrimination in order to improve QoL of migrants.

In contrast, social support was reported to have a positive effect on the mental health and HRQoL of migrants because of the determinants influencing their health in a positive way, such as having strong family and ethnic networks. Past studies of Turkish populations have shown that social support can have a protective effect when it comes to affective disorders and stress and consequently to HRQoL [50].

The current study supported the positive influence on HRQoL for only the dimension of GH in the German group. This is in contrast to results from another study, which showed that social support was a significant predictor of HRQoL [51].

In summary, the results of this study were somewhat different from those of other previous studies. The assumptions were that low income and discrimination reduce HRQoL and social support improves HRQoL. Since the hypotheses could not be fully supported and considering the lack of explanatory research on this topic, this cannot be clarified in the context of this study. Instead, it must be assumed that the predictors influencing the HRQoL of Polish migrants, Turkish migrants and German natives either negatively or positively are different from the ones identified in this study.

This is the first study that offers relevant insights into the HRQoL of elderly Turkish and Polish migrants and German natives. The results have theoretical and practical implications for the health and HRQoL of migrants: the results reported should be investigated in other studies with larger study samples and other (minority) groups. In particular, the migration-specific differences in HRQoL constructs should be considered by policy makers, researchers and health practitioners. The differences in this study show that it is necessary to consider group-specific factors when developing prevention and health promotion strategies. The results have some implications for policy makers as health promoting initiatives should not only address the disadvantages of migrant groups, but should consider their resources. This approach could lead to a strengthening of migrant's health and HRQoL.

8. Limitations of the study

There are some limitations to this study, which should be considered when interpreting the results. Firstly, this study used a cross-sectional study design and this restricts the inter-

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pretation of the impact of migration on the HRQoL. A longitudinal approach would have offered more data relating to changes over time, but it was not possible to employ this type of design within the economic constraints of this study. Secondly, it should be borne in mind that this sample of Turkish and Polish migrants consists of elderly migrants living in specific areas of Hamburg/Germany and therefore the sample cannot be representative of all migrants in the whole city or even country. Therefore, the generalisation of the results is limited to these specific groups. Thirdly, it cannot be excluded that some of the Polish and Turkish migrants were reluctant to participate: the interviews were limited to the individuals found in public places and by friends or family members. This may have led to a selection or sampling bias. Fourthly, despite care being taken with the translation of the Sf-36 questionnaire there is the possibility that some items were interpreted differently by the three groups because of cultural interpretation of items. This potential limitation may have restricted the meaning of comparisons between the different cultural groups. Finally, the research team cannot discount the fact that, in spite that all the interviewers were native speakers of the relevant language, some questions may have been difficult to understand and led to misinterpretation.

9. Conclusion

This study suggests that being a migrant does not necessarily entail poor HRQoL, individual differences within the whole concept of HRQoL were evident. Turkish migrants' perceptions of their own HRQoL were only worse than those of German natives in RE and MH, but the perceptions of Polish migrants were superior in PF and VT. Migrants' health is often seen from a deficit or problem-based perspective. However, the superior HRQoL of the Polish group, in two of the HRQoL dimensions, would imply the search for existing personal and social protective resources. We recommend, therefore, that future studies should adopt both, a deficit or problem-based approach as well as a strengths or resources-based approach when considering the perspective of migrants' health and HRQoL. Studies should aim to identify the range and role of possible mediators of HRQoL that arise from migration status and identify the underlying social determinants of the different HRQoL dimensions.

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Chapter 5

Suicidal Behaviors in Patients Admitted to Emergency Department for Psychiatric Consultation: A Comparison of the Migrant and Native Italian Populations Between 2008 and 2015

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Abstract

In recent decades, Italy has become a desirable destination for immigrants. In 2014, five million people (8.2% of the population) were migrants (regular/irregular, documented/undocumented). This study looks at psychiatric health, an important feature especially for first-generation migrants and compares the new settlers with the native Italians. It should be noted that the organization of mental health services in Italy strongly relies on outpatient services, while the psychiatric wards, within the general hospitals, usually accommodate patients in acute phases of their disorder. Nonetheless, migrants' first contact often happens in a psychiatry ward when they are in a severe and acute psychopathological condition. Research methods: Quantitative and qualitative; longitudinal research using official statistical and clinical data obtained from records of a public hospital as well as information obtained through professional interview. Results: In relation to mental health, we found that the migrant patients referred for psychiatric consultation to the emergency department (ED) setting were younger, less frequently treated by psychiatric outpatient services, more commonly going to the ED for self-injury and presenting with symptoms of substance abuse and alcohol-related disorders. The native Italian population was older, more frequently retired and/or invalid, more frequently already treated by psychiatric outpatient services for any kind of psychiatric symptoms. Conclusion: The comparison of the sociodemographic and clinical features of immigrants and Italians referred for psychiatric consultation in the ED highlighted some differences. Implications are discussed in the light of the existing literature.

Keywords: Italy, regular (documented) and irregular (undocumented) immigrants, native Italian population, suicidal behaviors, emergency department (ED), psychiatric consultation, Italian National Institute of Statistics, National Health Service, Community Mental Health Center

1. Introduction

1.1. Migration and mental health

Migration is the process by which an individual moves from one cultural context to another, in order to settle for a long period of time or lifelong [1]. Migration can occur en masse or individually; people who emigrate for economic or academic reasons usually move alone and then are followed by their families, while those who emigrate for political reasons typically move in mass, with or without their own families [2].

The process of migration entails three phases: premigration, which includes the decision to migrate and the preparation for it; the actual migration, that is, the physical transfer of the person from one place to another; and post-migration, defined as the process of migrants' integration in the new social and cultural context of the host country, where new rules and roles have to be learned [2]. Obviously, this is a simplification, and the migration process and the experiences might significantly vary from person to person [1].

Each phase of the migration process may represent a stressor eventually leading to an increased risk of developing psychiatric symptoms or disorders, including depression, anxiety, post-traumatic stress disorder, addiction to alcohol and drugs, loneliness, hopelessness and suicidal behaviors [2]. Overall, migrants might have higher rates of psychopathology than the host populations, due to the exposure to the stress of the migrating process, which may include one or more of the following: the end of the links with their country of origin, the loss of social status and network, a sense of inadequacy because of language barriers, unemployment, financial problems, a sense of not belonging, feelings of exclusion and loss of interest in entering into a relationship with others. Migrants might experience a condition similar to bereavement, caused by the loss of their previous social network, relationships and culture. Language (especially colloquial language and dialect), attitudes, values and social support networks are missed the most. While painful feelings for these losses are a natural consequence of migration, when these feelings turn into a clinically significant, long-lasting distress or impairment, professional support may be necessary [3].

1.2. Migration and suicidal behavior

Migrant status may represent a risk factor for suicidal behavior, which is an important challenge in migrants' mental health care [4, 5]. Many authors observed that suicide rates increased among migrants and ethnic minorities [4, 5], probably in relation with some risk factor for suicidal behaviors, which are intrinsic to the migrant condition, such as poverty, war, traumatic experiences, political repression, torture, experiences of discrimination and marginalization in the host country. These stressors might act as triggers for a condition of

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vulnerability [6, 7]. However, migrants are also likely to be exposed to protective factors, like strong family networks or protective cultural or religious traditions, beneficial to overall mental health [7].

Suicide rates vary from country to country, and there seems to exist no generalizable pattern of suicide in migrants [5]. Suicide rates among migrants tend to follow those of their country of origin, showing a significant and positive correlation between the two values; in other words, at least for the initial period they spend in the host country, migrants seem to "bring along" their suicide risk [8–12]. Most of the research was performed in the United States, but the same type of evidence has been obtained in other host countries, such as Austria, Australia, Canada, Sweden and the United Kingdom [12, 13]. The similarity of suicide rates with those of the country of origin was also found in second-generation migrants [12–14] and for suicide attempt rates [3]. The continuity highlighted by the correlation with suicidality in the migrants' countries of origin may be understood from either a cultural or a genetic perspective. However, the results in this field are mixed, and while a recent review concluded that, overall, most migrant groups do not have an increased suicide risk relative to the local-born population, with some even experiencing substantially lower risks [15], another one reported higher rates of suicidal behaviors among migrants compared to host populations, which is likely due to difficulties in the acculturation and integration process [3].

An Austrian study found the lowest rates for suicidal behaviors among Turkish migrants and the highest among the Japanese, consistent with the rates of both countries of origin and with those observed in other host countries, for instance, the United States [12]. A similar trend was found in one of the studies mentioned above, which involved 10 European countries: Turkey, Switzerland, Belgium, Finland, Israel, the Netherlands, Italy, Sweden, Estonia and Germany. In this survey, the highest rates of suicide attempts among migrants generally corresponded to higher rates of suicide in the country of origin, and there was an overlap between the rates of suicide attempts of the same ethnic group in different host countries [3]. Similarly, a meta-analysis of 33 studies about the suicide rates in migrants from almost 50 nationalities, in 7 host countries (Australia, Austria, Canada, England, the Netherlands, Sweden and the USA), supported the strong correlation between migrants' suicide rates and those of their countries of origin [12].

In most studies conducted in Europe, America and Australia, the highest risk of suicide was found in migrants from Northern and Eastern Europe, and the lowest in those from Southern Europe and the Middle East. A further complicating issue is the possibility that suicide rates may vary in relation to the country of origin on the one hand, but also according to gender, on the other. For instance, in migrants from Asian countries, the risk of suicide seems generally low for men but appreciably higher for women [2, 3, 8, 13, 16–18].

The high suicide rates among migrants from Northern and Eastern Europe might be related to the high alcohol consumption typical of these countries. For example, Finnish migrants who died of undetermined causes in Sweden tended to have high alcohol levels in their blood [29]. A similar trend was found in Russia, where suicide rates related to alcohol abuse are very high, and among Russian migrants who died by suicide in Estonia [8].

The low rates of suicide among migrants from Southern Europe, the Middle East and Asia may be due to some protective factors, such as the strong influence of traditional values,

family and religious beliefs. These countries are more collectivist and have strong family ties and group identity outside their country of origin. Both in Catholic and in Muslim countries, religion may be a strong deterrent to suicide, which is considered as a sin in the Catholic religion and as *haram*, or forbidden, by the Islamic law (*sharia*) [20]. The protective role of religion could also be enhanced by the ties with the religious community, which might represent a strong source of social support and sense of belonging [21, 22].

Migration exposes to mental health-related risks not only the actual migrants but also their families who remained in the country of origin. For example, it has been observed that the next of kin of Mexican migrants in the United States were at greater risk of suicidal ideation and suicide attempts than Mexicans without a family history of emigration. Emigration could weaken family ties, lead to feelings of loneliness and insecurity, and thus increase the risk of suicide also among family members who remained at home [23].

1.3. Italy and migration

In recent decades, Italy has undergone major socio-political changes that have deeply influenced the life of the country and its inhabitants. Like Ireland, Spain and Portugal, Italy in the last century was a country of emigrants. Anyway, Italy has currently become a desirable destination for migrants, who often come as refugees in poor health conditions, with the hope of finding "heaven" [24, 25]. Because of its position, Italy is now a disembarkation country for migrants sailing from North Africa across the Mediterranean Sea, as well as a destination for those coming from Eastern Europe. Please note that from now on, we will use the word "migrant" to mean both foreigners and naturalized people: the first are individuals without Italian nationality, while the second are those born abroad, who acquired Italian citizenship [26].

At the end of year 2014, 5 million out of the 60.8 million inhabitants in Italy (8.2%) had a foreign citizenship. Non- European Union (EU) foreigners holding a residence permit in Italy on 1 January 2015 were 3.929.916, with the following being the most represented countries of origin: Morocco, Albania, China, Ukraine and Philippines [27]. ISTAT (Istituto Nazionale di Statistica, National Institute of Statistics) data report an approximately 63% increase of the migrant population in Italy from 2008 to 2015 (from 3 to 4.9 million) [27]. This increase was from 284.191 migrants in 2008 to 425.523 in 2014 in Piedmont [23] and a similar trend was observed in the province of Novara (from 25.088 = 6.9% of the total population in 2008 to 37.453 = 10.1% in 2014). The largest migrant communities included the Moroccan, Albanian, Romanian and Ukrainian people [28].

1.3.1. The Italian legislation about the healthcare needs of migrants

Current Italian legislation about the healthcare of foreign citizens [19] requires that migrants legally residing in Italy or having ongoing regular working activities register for the National Health Service. These migrants share the same treatment options, the same rights and duties as Italian citizens, but it should be emphasized that also irregular (undocumented) migrants (without a residence permit) are offered and granted urgent or essential healthcare in outpatient and inpatient facilities, as well as preventative health programs. When irregular (undocumented)

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migrants ask for medical assistance, no authority will be notified. An exception is made relating to clinicians' obligations concerning crime notification. In 2010, the "Integration Agreement" and "Integration Plan" of the EU have been adopted to enhance migrants' integration, including measures to promote access to social and health services through advertisement, cultural mediators, as well as training for health and social workers. [30].

1.3.2. Migrants and mental health services

Overall, migrants tend to access mental health services less than the native population [31, 32]. Economic factors, a state of irregularity, poor understanding of local language, differences in cultural background and in the expression of mental distress may hinder migrants' access to mental health facilities [2, 33, 34].

The organization of mental health services varies in different countries. In Italy, psychiatric care strongly relies on outpatient services, while the psychiatric wards within the general hospitals accommodate patients during the acute phases of their disorder, usually for short periods of time. A recent study [35] found that migrants and natives sharing similar pathways to access a Community Mental Health Center (CMHC) in Northern Italy, although migrants showed a higher frequency of treatment dropout. Migrants are more likely to turn to the hospital in the first place to seek help; therefore, their first contact with mental health often happens in a psychiatry ward in the general hospital [36–38].

In a previous research [39], we found that, compared to native Italians, migrants referred for psychiatric consultation in the ED setting were younger, less frequently treated by psychiatric outpatient services, more commonly attending emergency services for self-injury, and presenting with symptoms of substance abuse and alcohol-related disorders. Regarding intervention received in the ED (including medications) and outcome of the psychiatric consultation, we found several differences between Italian natives and migrants [39, 40].

The aim of the current study is to expand our previous research, gathering a larger sample for the migrant and native population. Furthermore, we aimed to compare the sociodemographic, clinical and treatment features during and after a psychiatric consultation in the ED, with a specific focus on suicidal behaviors.

2. Methods

2.1. Study setting

This research was performed between 2006 and 2015 in the emergency department (ED) of the Maggiore della Carità Hospital, Novara, Italy, which has a high specialization ED, treating about 60,000 adult people per year. The Maggiore della Carità Hospital is the second largest general hospital in Piedmont and the main hospital for all North-Eastern Piedmont; its catchment area is representative for the whole region. In the ED of our hospital, all acute patients are assessed by the emergency medicine physician according to a priority code applied by the nurse through a triage evaluation. The emergency physician can request

a consultation with other specialists, such as psychiatrists, after the patients' preliminary assessment, according to the patients' clinical features and according to the hospital guidelines for the ED [40].

2.2. Sample

We collected data about consecutive patients assessed in the ED of the Maggiore della Carità Hospital, who were referred for psychiatric assessment after ED triage. The study period was from 1st January 2006 to 31st December 2015. From 1st January 2006 to 31st December 2007, only data for migrant patients (regular/irregular, documented/undocumented; $N = 113$) were available. From 1st January 2008 to 31st December 2015, data were available for all consecutive patients assessed in the ED (total $N = 3780$; immigrants $N = 420$). No exclusion criteria were applied except for age being <16 years, because in our country, these patients are treated by a separate pediatrics ED.

An experienced psychiatrist assessed patients by performing a clinical interview, including the assessment of suicidal intent, suicidal behaviors and attempts. The psychiatrist filled in a data sheet for each patient, reporting demographic data and clinical features. Moreover, variables relating to the ED access were recorded. This research project was approved by the Institutional Review Board of the Università del Piemonte Orientale as part of the research duties of the Psychiatry Institute.

2.3. Statistical analysis

Migrant patients recruited from 2006 to 2015 were analyzed using descriptive statistics. During this period of time, 3780 people receiving a psychiatric consultation in the ED setting from 2008 to 2015 were subdivided into two groups: migrants and Italian natives. Descriptive statistics were performed using frequencies, percentages, frequency tables for qualitative variables, mean using standard deviation (SD) and min-max values for quantitative variables. The Chi-squared test was used to evaluate the differences in proportions between groups (Italian natives/migrants). The covariates included in the final model were selected through the Hosmer and Lemeshow procedure, by inserting variables with a univariate p value <0.25 as the main criterion [41]. Results are expressed as odds ratio (OR) with 95% confidence intervals (95% CI). Statistical significance level was set at p value <0.05. Statistical analyses were performed with STATA 11 [42].

3. Results

During the 10-years period from 1st January 2006 and 31st December 2015, 533 migrants were assessed in the ED. In **Table 1**, we summarized details and statistically significant differences in the variables assessed between regular/documented and irregular/undocumented migrants recruited from 2006 to 2015. The distribution of the migrants' area of origin was the following: Europe 39.2%, Africa 28.8 %, Asia 14.7 %, and Central-South America 17.3%.

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		Residence permit No % (*N*)	Yes % (*N*)	*p*[§]
Health insurance card (*N* = 502)	No	100.00 (26)	21.59 (103)	**<0.001**
	Yes	0.00 (0)	78.41 (374)	
STP code (*N* = 129)	No	8.33 (2)	100.00 (106)	**<0.001**
	Yes	91.67 (22)	0.00 (0)	
Educational level	Primary or middle school	4.17 (1)	30.00 (120)	**0.006**
	High school or degree	95.83 (23)	70.00 (280)	
Occupational status	Employed	4.17 (1)	34.10 (148)	**0.010**
	Unemployed	91.67 (22)	62.67 (272)	

[§]Statistically significant difference.

Table 1. Comparison between migrants with and without residence permit (2006–2015): statistically significant results.

From 1st January 2008 to 31st December 2015, 3781 patients underwent psychiatric assessment in the ED. Our sample thus constituted 1640 men (43.38%) and 2141 women (56.62%). A total of 3247 patients were Italian natives and 421 were migrants, matching the inclusion criteria described above.

The sociodemographic features of ED referrals undergoing psychiatric consultation, comparing results of Italian natives and migrants in the period between 2008 and 2015 are summarized in **Table 2**.

		Natives % (*N*)	Migrants % (*N*)	*p*
Gender	Male	43.46 (1411)	42.76 (180)	0.785
	Female	56.54 (1836)	57.24 (241)	
Age class (years)	≤18[§]	3.51 (114)	7.14 (30)	**<0.001**
	19–44[§]	45.22 (1468)	73.81 (310)	
	45–64[§]	35.34 (1147)	16.43 (69)	
	≥65[§]	15.93 (517)	2.62 (11)	
Living accommodation	Alone	27.06 (803)	22.77 (87)	0.073
	With parents or own family	66.36 (1969)	68.32 (261)	
	Community or social services	6.57 (195)	8.90 (34)	
Marital status	Not married	61.18 (1800)	58.29 (218)	0.280
	Married	38.82 (1142)	41.71 (156)	

		Natives % (*N*)	Migrants % (*N*)	*p*
Educational level	Primary or middle school	28.23 (810)	25.28 (89)	0.244
	High school or degree	71.77 (2059)	74.72 (263)	
Occupational status	Employed	28.67 (900)	28.57 (112)	**<0.001**
	Unemployed§	51.64 (1621)	67.09 (263)	
	Retired/invalid§	19.69 (618)	4.34 (17)	
Residence	Novara	65.12 (2106)	67.78 (284)	**<0.001**
	Extra Novara§	33.06 (1069)	25.54 (107)	
	Homeless§	1.82 (59)	6.68 (28)	
Residency permit (*N* = 503)	No	–	4.86 (19)	–
	Yes	–	95.14 (372)	
Health insurance card (*N* = 502)	No	–	22.51 (88)	–
	Yes	–	77.49 (303)	
STP code (*N* = 129)	No	–	11.76 (2)	–
	Yes	–	88.24 (15)	

§Statistically significant difference.

Table 2. Comparison of the sociodemographic between Italian natives and migrants (2008–2015).

Table 3 shows the clinical features of referrals undergoing psychiatric consultation in the ED, comparing Italian natives and migrants (2008–2015).

	Natives % (*N*)	Migrants % (*N*)	*p*
History of psychiatric disorders	67.29 (2181)	43.20 (181)	**<0.001**
Previous contacts with addiction services	12.12 (392)	12.92 (54)	0.641
Previous psychiatric admissions	42.16 (1361)	22.43 (94)	**<0.001**
Psychiatric admissions in the last 6 months	19.05 (615)	11.22 (47)	**0.001**
Under the care of a psychiatrist	55.15 (1763)	28.61 (119)	**<0.001**
Under the care of addiction services	8.98 (281)	9.43 (38)	0.769
Comorbidity with somatic disorders	28.27 (911)	15.20 (64)	**<0.001**
Admission to other wards (last 6 months)	6.24 (201)	5.00 (21)	0.317
Relationship problems	36.24 (1175)	47.27 (199)	**<0.001**
Treated with psychiatric medications	60.35 (1954)	33.97 (143)	**<0.001**

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		Natives % (*N*)	Migrants % (*N*)	*p*
Symptoms	Anxiety§	32.46 (1053)	23.99 (101)	**<0.001**
	Psychomotor agitation, excluding forms of intoxication, abstinence or dementia	9.74 (316)	9.74 (41)	
	Mood disorders and bipolar disorders	15.35 (498)	11.88 (50)	
	Schizophrenia and other psychotic disorders	9.09 (295)	7.84 (33)	
	Cognitive impairment (confusion, memory deficits, delirium)	6.50 (211)	1.66 (7)	
	Alcohol/substance intoxications or withdrawal symptoms§	10.17 (330)	19.00 (80)	
	Negative psychiatric examination§	14.24 (462)	24.70 (104)	
	Other (e.g. EPS, neurological symptoms)§	2.44 (79)	1.19 (5)	

§Statistically significant difference.

Table 3. Clinical features in Italian natives and migrants (2008–2015).

Table 4 shows patterns of access and main psychiatric symptoms of referrals undergoing psychiatric consultation in the ED setting, comparing results of Italian natives and migrants (2008–2015).

		Natives % (*N*)	Migrants % (*N*)	*p*
Reason for referral	Any psychiatric symptom§	52.54 (1706)	44.66 (188)	**<0.001**
	Patients' request	8.96 (291)	7.36 (31)	
	Somatic symptoms in psychiatric patient§	3.05 (99)	1.19 (5)	
	Self-injury§	17.22 (559)	23.52 (99)	
	Alcohol/substance Intoxications or withdrawal symptoms§	5.20 (169)	10.21 (43)	
	Somatic symptoms	4.50 (146)	4.99 (21)	
	Other (e.g. neurological symptoms)*	2.86 (93)	2.61 (11)	
	Management difficulties	5.67 (184)	5.46 (23)	

		Natives % (*N*)	Migrants % (*N*)	*p*
Accompanying person	Nobody§	42.18 (1249)	37.06 (146)	**<0.001**
	Relatives, friends, educators	48.70 (1442)	48.98 (193)	
	Police	5.78 (171)	11.17 (44)	
	Doctor	3.34 (99)	2.79 (11)	
Referred by	Patient himself/herself§	50.53 (1623)	45.82 (192)	**<0.001**
	Relatives, friends, educators	23.60 (758)	26.97 (113)	
	Psychiatrist, addiction service	4.14 (133)	2.63 (11)	
	General practitioner, emergency medical service, other specialist§	15.94 (512)	11.46 (48)	
	Another specialist	0.72 (23)	0.48 (2)	
	Police§	5.07 (163)	12.65 (53)	
Access time	Night	42.25 (1371)	43.47 (183)	0.634
	Day	57.75 (1874)	56.53 (238)	
Seasonality	0 (April–September)	49.89 (1620)	51.78 (218)	0.466
	1 (October–March)	50.11 (1627)	48.22 (203)	
Year	2008§	17.03 (553)	20.67 (87)	**0.022**
	2009§	13.98 (454)	10.45 (44)	
	2010	13.27 (431)	15.44 (65)	
	2011§	9.27 (301)	12.35 (52)	
	2012	17.80 (578)	16.15 (68)	
	2013	11.89 (386)	8.79 (37)	
	2014	7.45 (242)	5.94 (25)	
	2015	9.30 (302)	10.21 (43)	
Congruity referral	No	19.02 (558)	6.26 (46)	**<0.001**
	Yes	80.98 (2375)	93.74 (689)	
Priority code	White§	15.27 (448)	2.72 (20)	**<0.001**
	Green§	64.95 (1905)	45.99 (338)	
	Yellow§	18.99 (557)	49.12 (361)	
	Red§	0.78 (23)	2.18 (16)	

Note: *Excluding substance-related and organic causes; other includes cognitive impairment, delirium, memory deficits, extra-pyramidal and neurological symptoms, etc.
§Statistically significant difference.

Table 4. Pattern of ER access and main presenting psychiatric symptoms of Emergency Room referrals undergoing psychiatric consultation: results of the comparison between Italian natives and migrants (2008–2015).

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Table 5 describes Axis I and Axis II diagnoses according to DSM-IV-TR criteria [43] in migrants and Italian natives (2008–2015).

		Natives % (*N*)	Migrants % (*N*)	*p*
Previous known diagnoses		51.09 (1658)	73.16 (308)	**<0.001**
Axis I DSM IV-TR diagnoses	Neurocognitive disorders	7.01 (91)	7.22 (7)	**0.031**
	Substance use disorders§	18.86 (245)	30.93 (30)	
	Schizophrenia and other psychotic disorders§	30.25 (393)	17.53 (17)	
	Mood disorders and bipolar disorders	17.94 (233)	21.65 (21)	
	Anxiety disorders	14.63 (190)	11.34 (11)	
	Somatoform disorders	5.77 (75)	6.19 (6)	
	Factitious disorders	0.38 (5)	0.00 (0)	
	Dissociative disorders	2.00 (26)	1.03 (1)	
	Eating disorders	2.23 (29)	1.03 (1)	
	Adjustment disorders§	0.92 (12)	3.09 (3)	
Axis II DSM IV-TR diagnoses	No	73.42 (2099)	81.77 (296)	**0.023**
	Yes	26.58 (760)	18.23 (66)	

§Statistically significant difference.

Table 5. Axis I DSM IV-TR diagnoses and Axis II DSM IV-TR diagnoses in migrants and Italian natives groups (2008–2015).

Table 6 describes the results of the comparison between Italian natives and migrants (2008–2015) and the interventions and outcomes of the psychiatric consultations in the ED.

		Natives % (*N*)	Migrants % (*N*)	*p*
Type of medication	Benzodiazepines	78.18 (2372)	78.44 (302)	0.909
	Typical antipsychotics	21.19 (643)	21.30 (82)	
	Atypical antipsychotics	0.13 (4)	0.00 (0)	
	Benzodiazepines + antipsychotics	0.43 (4)	0.26 (1)	
	Other (e.g. anticholinergics)	0.07 (2)	0.00 (0)	
Type of intervention	PI + acute therapy	26.33 (855)	22.80 (96)	0.470
	PI + adjustment of ongoing treatment + acute therapy	5.79 (188)	7.36 (31)	
	PI + adjustment of the ongoing treatment	48.91 (1588)	50.36 (212)	
	Only psychiatric interview	8.90 (289)	9.03 (38)	
	PI and treatment start-up	10.07 (327)	10.45 (44)	

		Natives % (*N*)	Migrants % (*N*)	*p*
Consultation's outcome	Admission to psychiatric ward	3.30 (107)	4.99 (21)	0.449
	Brief stay/observation	0.28 (9)	0.00 (0)	
	Discharge	95.38 (3097)	94.30 (397)	
	Admission to other wards/assessment by other specialist§	0.28 (9)	0.24 (1)	
	Outpatient care	0.40 (13)	0.24 (1)	
	Voluntary discharge	0.37 (12)	0.24 (1)	
Acute treatment	Yes	89.10 (2887)	88.57 (372)	0.742
Way of treatment	Intravenous or intramuscular	5.86 (178)	3.10 (12)	**0.026**
	Orally	94.14 (2862)	96.90 (375)	

Note: BDZ: benzodiazepines; APS: antipsychotics; other includes for instance anticholinergics, flumazenil, etc.; PI: psychiatric interview; *either voluntary or not.
§Statistically significant difference.

Table 6. Intervention delivered in the ER and outcome of the consultation of emergency room referrals undergoing psychiatric consultation: results of the comparison between Italian natives and migrants (2008–2015).

Table 7 summarizes self-injury behaviors in migrants and Italian natives (2008–2015).

		Natives % (*N*)	Migrants % (*N*)	*p*
Suicidal ideation	Yes	21.80 (138)	21.57 (22)	0.958
Self-injury behaviour	Yes	19.49 (633)	24.23 (102)	**0.022**
Short-circuit reaction	Yes	79.62 (504)	78.43 (80)	0.783
Type of self-inflicted injury	Drugs ingestion	37.44 (237)	34.31 (35)	0.310
	Cutting injuries	60.82 (385)	65.69 (67)	
	Other (e.g. CO, caustic agents)	1.74 (11)	0.00 (0)	
Type of drugs ingestion	Benzodiazepines or barbiturates	36.69(62)	30.77 (8)	0.659
	Antidepressants or SSRI	6.51 (11)	11.54 (3)	
	Non psychiatric drugs	7.10 (12)	3.85 (1)	
	Polydrugs	48.52 (82)	50.00 (13)	
	APS	1.18 (2)	3.85 (1)	

Table 7. Self-injury behaviors in n migrants and Italian natives groups (2008–2015).

The results of the multivariate analysis performed to identify potential predictors of self-injury behaviors in the whole sample of patients admitted to the ED of the Maggiore della Carità Hospital in the period between 2008 and 2015 are presented in **Table 8**.

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		Adjusted OR	95% CI	p
Gender: female	Female	1.60	(1.09–2.35)	**0.017**
Age class	≤18	1	-	-
	19–44	1.40	(0.44–4.51)	0.572
	45–64	1.30	(0.39–4.33)	0.672
	≥65	0.61	(0.15–2.57)	0.503
Year	2008	1	-	**-**
	2009	1.35	(0.49–3.72)	0.561
	2010	1.61	(0.61–4.24)	0.336
	2011	2.43	(0.88–6.73)	0.086
	2012	1.43	(0.53–3.90)	0.482
	2013	5.51	(2.28–13.29)	**<0.001**
	2014	14.03	(5.66–34.75)	**<0.001**
	2015	3.27	(0.96–11.13)	0.057
Seasonality	April–September	1	-	-
	October–March	0.56	(0.39–0.80)	**0.001**
Nationality	Italians	1	-	-
	Migrants	0.95	(0.50–1.82)	0.879
Living Accommodation	Alone	1	-	-
	With parents or own family	1.53	(1.00–2.35)	**0.048**
	Community or social services	1.63	(0.83–3.19)	0.155
Marital status	Not married	1	-	-
	Married	0.72	(0.48–1.07)	0.106
Educational level	Primary or middle school	1	–	**–**
	High school or degree	1.24	(0.84–1.84)	0.281
Occupational status	Employed	1	–	–
	Unemployed	0.82	(0.53–1.28)	0.386
	Retired/invalid	1.30	(0.67–2.56)	0.438
History of psychiatric disorders	Yes	0.61	(0.31–1.18)	0.141
Previous contact with Addiction Services	Yes	0.92	(0.45–1.87)	0.816
Previous psychiatric admissions	Yes	0.99	(0.60–1.65)	0.978
Psychiatric admissions in the last 6 months	Yes	1.04	(0.69–1.56)	0.844
Under the care of a psychiatrist	Yes	0.70	(0.41–1.19)	0.187

		Adjusted OR	95% CI	p
Under the care of addiction Services	Yes	0.94	(0.42–2.08)	0.877
Co-morbidity with somatic disorders	Yes	1.37	(0.92–2.05)	0.125
Treated with psychiatric medications	Yes	1.27	(0.80–2.04)	0.314
Symptoms	Anxiety	1	–	–
	Psychomotor agitation, excluding forms of intoxication, abstinence or dementia	1.11	(0.59–2.10)	0.747
	Mood disorders and bipolar disorders	1.48	(0.82–2.66)	0.188
	Schizophrenia and other psychotic disorders	1.62	(0.80–3.32)	0.183
	Cognitive impairment (confusion, memory deficits, delirium)	0.87	(0.35–2.14)	0.763
	Alcohol/substance intoxications or withdrawal symptoms	1.01	(0.49–2.07)	0.980
	Negative psychiatric examination	1.76	(0.95–3.24)	0.071
	Other (e.g. EPS, neurological symptoms)	0.40	(0.07–2.15)	0.286
Psychiatric history	Yes	1.41	(0.60–3.32)	0.433
Axis I DSM IV-TR diagnoses	Neurocognitive disorders	1	–	–
	Substance use Disorders	0.68	(0.27–1.68)	0.400
	Schizophrenia and other psychotic disorders	0.28	(0.11–0.70)	**0.006**
	Mood disorders and bipolar disorders	0.99	(0.43–2.30)	0.985
	Anxiety disorders	0.82	(0.35–1.93)	0.648
	Somatoform disorders	0.89	(0.34–2.34)	0.814
	Factitious disorders	0.57	(0.45–7.29)	0.667
	Dissociative disorders	1.74	(0.51–6.07)	0.368
	Eating disorders	0.27	(0.05–1.48)	0.130
	Adjustment disorders	0.17	(0.19–1.61)	0.123
Axis II DSM IV-TR diagnoses	Yes	1.82	(1.20–2.76)	**0.005**

Table 8. Potential predictors of self-injury behaviors in patients admitted to the ER of the Maggiore della Carità Hospital (2008–2015).

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4. Discussion

4.1. Migrants' features according to regularity state

As shown in **Table 1**, we observed that only 78.41% of regular/documented migrants had a health insurance card, while, as expected, no one of the irregular/undocumented migrants was in possession of it ($p < 0.001$). As expected according to current laws, 91.67% of irregular/undocumented migrants had an STP code (Stranieri Temporaneamente Presenti). This is an anonymous and free Italian code that irregular/undocumented migrants can obtain in order to access health services. It is valid for 6 months and renewable and ensures equal access to all "urgent and essential" care for irregular/undocumented migrants [44].

Compared to irregular/undocumented migrants, regular/documented migrants were more frequently employed, but self-report more relationship problems. The educational level was high in both groups. Employment and educational status are likely to have an impact on migrants' health outcomes [45] in the long term [44]. Significant differences were found between regular/documented and irregular/undocumented migrants as far as the following variables are concerned: Being under the care of a psychiatrist and treated with psychiatric medications, which were both more common in the former than in the latter. Irregular/undocumented migrants were more likely to self-report a previous psychiatric diagnosis received in their country of origin. Some estimations about the 2002–2008 period show that 1.9–3.8 million irregular/undocumented migrants lived in the EU, with possible difficulty to access basic healthcare and social services [45]. Furthermore, there are concerns about irregular/undocumented migrants' vulnerability to physical and mental health risks, which may be worsened by difficult socioeconomic conditions and limited access to health services [46].

4.2. Sociodemographic features

In our study, the most represented migrants' area of origin was Europe, followed by Africa, consistently with the data reported by the ISTAT [26]. Consistent with our previous study [35], migrants assessed in the ED with a psychiatric consultation were younger than natives, with most of them belonging to the age classes <18 and 19–44 years, while most natives belonged to the age classes 45–64 years and >65 years. This finding is consistent with the demographic profile of the migrant population in Piedmont [47] and with another Italian study about emergency contacts of subjects who received a psychiatric diagnosis [48]. The educational status has been mentioned in the previous section and, as far as occupational status is concerned, migrants were more frequently unemployed than natives, and natives were more frequently retired and/or invalid. This result could be partly expected considering the differences of patients' ages. It also supports previous research performed in our country [49]. No significant differences were found between migrants and native Italians in relation to living accommodation, marital status and educational level.

4.3. Clinical features (case history)

We found several differences between migrants and native Italians. As expected, migrants were less frequently treated by a psychiatrist (including treatment with medication). Their history of psychiatric disorders and of previous admissions to a psychiatric ward during the

6 months prior to current consultation was also less frequent. Moreover, migrants were less likely than Italian natives to have a comorbid somatic disorder. This last finding probably depends on the differences we found in the patients' ages, with migrants being significantly younger than natives. As far as the other data are concerned, they may relate to possible barriers of migrants accessing Community Mental Health Centers, which is consistent with reporting their greater use of ED healthcare services. Interestingly, we found no difference between migrants and Italian natives regarding contacts with addiction services. As already pointed out, barriers may include service user views, difficulties in help-seeking, accessing services and using primary care, in trusting a clinician with a different cultural background, difficulties in acknowledging mental health problems and perceived causes of mental health problems [50]. The lack of differences in the use of addiction services may be the consequence either of migrants' specific problems in this field or of a perception of greater acceptability of this kind of mental health service.

4.4. Features of ED referral

Migrants were less likely than native Italians to access the ED by themselves, upon self-referral or indication of a clinician (for instance, a general practitioner [GP]). No difference between the two groups was found as far as being accompanied to the ED by family members or friends. On the other hand, compared to natives, migrants were more likely to be brought in and referred to the ED by the police. These findings are consistent with studies showing significantly lower proportions of self-referrals and a higher proportion of arrivals accompanied by the police in the Strong Migratory Pressure Countries (SMPC)-born group [37, 48].

The reason for psychiatric consultation included psychiatric symptoms (of any kind), more frequently experienced in Italian natives than in migrants, while migrants were more likely to receive a consultation because of self-injury and intoxication/withdrawal symptoms.

We can suggest some hypotheses for the reasons underlying the different pathways to psychiatric consultation in the ED. First, these may depend on the fact that migrants may access psychiatric services when their mental distress is severe, requiring urgent and coercive measures [36, 48]. Second, migrants' pattern of access to psychiatric consultation in the ED may also be explained by the fact that in Italy, urgent care in this setting is offered also to irregular/undocumented migrants, who are not allowed to attend the services of general practitioners (GPs) [49].

Symptoms assessment on behalf of the consultant psychiatrist yielded some significant differences between the two groups. Natives were more likely to show anxiety symptoms, cognitive impairment, delirium, memory deficits and neurological symptoms as main presenting symptoms. This greater frequency of cognitive impairment, memory deficits and neurological symptoms may depend on native's older age. Migrants were more likely to present with alcohol/substance related symptoms, or, interestingly, with a negative psychiatric examination (i.e. no psychiatric symptoms could be identified). The finding about negative psychiatric examination deserves a reflection and is discussed in the next paragraph.

As described in the previous section, no differences were found between migrants and natives in previous or current contact with addiction services, although we observed more frequently alcohol/substance-related symptoms among migrants. Maybe people with symptoms of alcohol

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and substance abuse using psychiatric consultations in ED instead of addiction services fosters the hypothesis of migrants' greater problems in this field.

Last, compared to natives, migrants were more likely to self-report relationship problems, which suggest the importance of possible difficulties in creating a relational net in the host country or in cohabitation.

4.5. DSM-IV-TR diagnoses

4.5.1. Axis I

In native Italians, we found higher proportions of schizophrenia and other psychotic disorders than in migrants. On the other hand, in migrants, we found higher proportions of substance abuse and adjustment disorders than in natives.

The literature reports a high incidence of schizophrenia and other delusional disorders in migrants than in host populations [51]. An explanation for the differences could be the possible role of setting differences, for instance, ED psychiatric consultation vs. Community Mental Health Center. Our results are consistent with similar research performed in ED settings [48, 36].

As far as substance use disorders are concerned, this result seems to support what was hypothesized in the previous paragraphs. It is likely that alcohol and substance-related disorders are important in the migrant population, deserving a more specific and targeted approach. It can be anticipated that the results would reduce pressure on the ED because treatment could be redirected.

The frequency of adjustment disorders was higher in migrants than in natives, but was lower than could be expected. Maybe, as already pointed out, the specific setting of this study plays a role in these results; we cannot exclude that migrant patients with adjustment disorder may lack the acute symptoms which usually lead to an ED consultation.

4.5.2. Axis II

Axis II diagnoses, including personality disorders and intellectual disabilities, were less frequent in migrants than in natives. Previous reports suggested that in the ED setting, where it is not possible to establish a post-acute therapeutic relationship with the migrant patient, it is likely that personality disorders are underestimated [52].

4.6. Intervention delivered in the ED and outcome of the psychiatric consultation

Interestingly, and partially in contrast with a previous study we performed on a smaller sample [35], we found only one difference in relation to drug administration, with the intravenous administration less frequent in migrants than in native Italians. This result is currently difficult to explain. Overall, there was no statistically significant difference between migrants and natives in type of intervention received in the ED and outcome of the consultation. The finding of similar consultation outcomes in migrants and natives is interesting, considering that previous studies found that migrants were more likely than natives to be admitted to a psychiatric ward or to be monitored in the ED with a short stay and observation after psychiatric consultation in the ED [48, 53, 35]. The literature reports mixed results concerning this issue: Some

studies found a tendency to the underutilization of inpatient facilities among migrants, particularly if they were coming from more distant countries to the host country [54].

As described in the previous paragraph, according to our data migrants and natives assessed by a psychiatrist in the ED show significant differences in symptoms and diagnoses. Therefore, the overlap of the intervention offered in the ED and of the psychiatric consultation raises some questions about cultural barriers, which may hinder an accurate understanding (and treatment) of the migrants' symptoms. Barriers to self-disclosure or of a defensive attitude towards the psychiatrist may prevent migrants from receiving the most appropriate treatment for their symptoms. The high proportion of negative psychiatric examination in migrants and of relational problems may suggest either the need of a more thorough understanding of the migrant patients' problems in order to properly classify and diagnose them or the need to target these problems (in case they are not the symptom of a disorder) in a different setting than the ED. While the first option points to the need for more trans-cultural training for psychiatrists, the second points to the need for better education of migrants as far as the use of the healthcare system is concerned. As already emphasized, migrants and natives show different patterns of attending psychiatric care, with the former being more likely to apply to acute mental health services (e.g. psychiatry wards in the general hospital) rather than to Community Mental Health Centers (CMHCs) [38].

4.7. Suicidal behaviors

The request for psychiatric consultation for self-injury behaviors was more frequent in migrants than in natives, and actually, suicide attempts were more common in the first than in the latter group [40]. Despite this finding, no statistically significant difference emerged between the two groups as far as the intent to die and the type of suicide attempt (for instance, drug overdose, cutting, carbon monoxide intoxication, jumping from high places). Moreover, in our sample of patients admitted to ED and undergoing psychiatric consultation, the multivariate analysis did not find that being a migrant is a potential predictor of suicide attempt. We believe that these findings should be understood in the light of cultural differences when expressing distress and suffering. Furthermore, as already pointed out, migrants may seek psychiatric help only when their distress has reached a severity that requires urgent interventions [55, 48]. Lastly, as described in the first sections of this chapter, the literature on suicidal behaviors in migrants varies, but certain reviews have not found a higher suicide risk in migrants compared to the local-born populations [5, 15].

4.8. Multivariate analysis

We will not describe here in detail the results of the multivariate analysis performed to identify the possible risk and protective factors for self-injury behaviors, because it would be beyond the focus of this chapter. As expected, according to the epidemiology of suicide attempts, female gender was a risk factor (reference category: male gender) for self-injury behaviors. Despite such behaviors being more common in migrants than in native Italians, the multivariate analysis did not find any significant result in relation to nationality. This result is consistent with the existing literature, as described in previous sections, and suggests that other factors might mediate suicidal behaviors in the migrant populations. While the fact of being a migrant can be considered

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a vulnerability factor for psychiatric symptoms and disorders, distress, and even suicidal behaviors, it is widely acknowledged that vulnerability should be considered in the context of a stress-vulnerability model, see for instance [56, 57]. Moreover, the mediating and protective role of coping skills, resilience, family and social support should not be overlooked [57].

During the 8-year period (2008–2015) of our study, we found that some years showed greater prevalence of suicidal risk than others. We found that the years 2013 and 2014 were positive predictors of suicidal behaviors, compared to 2008 (reference category), probably due to the global economic crisis and the concurrent political instability. The financial crisis, which began in 2007, 2008, had a negative impact on working conditions and people's health [58, 59]. Most studies in this field of interest supported an increased prevalence of mental health problems coinciding with the outbreak of the crisis [60]. Sometimes suicidal behaviors have been linked to economic reasons [61]. However, the literature also reports mixed results about the increase of suicide rates during economic crises. Some authors demonstrated an increase in the number of suicides during these times, especially in nations with lower levels of unemployment before the crisis itself [62]. Others found that the prevalence of suicide attempts and ideation had not increased significantly in 2011–2012 compared to other periods [63].

5. Limitations

We should highlight some limitations of the current research. Several differences among studies, starting with the definition of "migrants," hinder the possibility to compare results in the literature about migrants' mental health accurately [6]. The term "migrant" has many meanings, as discussed in our chapter and, unless more clearly defined, this makes comparisons difficult.

While the catchment area of our ED is representative of northern Italy, it is clear that a single-center design is also a limitation of our study, and that multicenter studies would increase the possibility to generalize results. Regarding suicide attempts, we should emphasize that, according to our ED guidelines, every suicide attempt is referred to the psychiatrist, but those patients who require life-saving treatments because they have committed a "violent" suicide attempt (as shooting or jumping from high places) are not visited by the psychiatrist in the ED setting. Moreover, we obviously did not include in our study those patients who did not seek help from the ED after a suicide attempt.

Last, since the information we gathered through the psychiatric interviews and the data sheets strongly relies on self-report, there is the possibility of a bias due to the fact that natives may feel more comfortable about self-disclosure than migrants.

6. Conclusions

In this chapter, we compared the sociodemographics, clinical and treatment features of Italian natives and migrants admitted to emergency department and receiving a psychiatric consultation in such setting. Our research started in 2006 and 2007 when we gathered data about regular/documented and irregular/undocumented migrants who attended psychiatric consultations. From

2008 to 2015, we gathered data for both migrants and native Italians. We found that migrants were less frequently treated by a psychiatrist (including treatment with medication), reported less frequently a history of psychiatric disorders and previous admissions to a psychiatric ward. Migrants were more likely than native Italians to be brought in and referred to the ED by the police and were less likely to present by themselves, but upon self-referral or indication of a clinician (for instance, a general practitioner) were accompanied by a member of the family and/or friend. Furthermore, migrants were more likely to receive a consultation because of self-injury and intoxication/withdrawal symptoms. Migrants were more likely than Italian natives to present with alcohol/substance related symptoms, or, interestingly, with a negative psychiatric examination (i.e. no psychiatric symptoms could be identified). As regards Axis I diagnoses, in migrants we found a lower proportion of schizophrenia and psychotic disorders, but higher incidence of substance abuse and adjustment disorders. Overall, there was no statistically significant difference between migrants and natives in the type of intervention received in the ED and outcome of the psychiatric consultations. The request for psychiatric consultation for self-injury behaviors was more frequent in migrants than in Italian natives, but no statistically significant difference emerged between the two groups as far as intent to commit suicide and the type of attempt. Moreover, the multivariate analysis did not find nationality as a risk factor for suicidal behaviors.

This research expanded our previous findings, which have been described elsewhere [35], and the larger sample size has allowed us to support some of the previous results, but opposes or refutes others. Overall, we believe that the current results add to the dearth of studies about migrants' use of mental health service in Italy, focusing on ED utilization.

Overall, the results of this study point to the need for a more thorough and trans-culturally informed approach to migrants' mental health [64]. While the treatment received by migrants and native Italians substantially overlaps, it might not target the actual needs and symptoms of the migrant population. Education on mental health for migrants (regular/documented and irregular/undocumented) to decrease actual or perceived barriers is needed.

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Chapter 6

Migration and Health from a Public Health Perspective

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Additional information is available at the end of the chapter

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Abstract

One of the main dimensions related to migration is that of health; this correlation is dynamic by nature and complex. Health is strongly related to the social determinants of health (job, income, education, and housing). When not properly supported by appropriate inter-sectoral policies, migration can expose the most vulnerable socioeconomic groups to significant problems. The protection of the health of migrants is an important investment of the public health because it promises benefits to both migrant population and natives. An essential aspect is to properly analyze the health needs of ethnic minorities. Both quantitative and qualitative research is necessary, and the involvement of the target communities is important. Another important aspect is the education and training of social and health workers involved in the care of migrants (with a multidisciplinary teamwork and "transcultural" approach), and the organization of services that can effectively be used. Finally, it is also essential to carry out an evaluation of health outcomes of the migrant population and the impact of adopted health policies. Protecting the health of ethnic minorities is both a challenge for governments and a test of the quality of their health systems.

Keywords: Italy, migration, immigration policies, legal/regular/documented migrants, illegal/irregular/undocumented migrants, health, right to health, health needs, health inequalities, public health policies, public health system

1. Introduction

Since ancient times, migration has been practiced by our species. Some modern scientific technologies (in particular paleogenomic analysis on the haplogroups of mitochondrial DNA and Y chromosome) have enabled us to reconstruct approximate times, directions, and sequences of the movements of Homo sapiens across the planet. This migration, known as "Out of Africa II," seems to have started some 70,000 years ago in North-Eastern Africa and is likely to have been caused by the search for better living conditions, for example, plentiful food, a better

climate, more comfortable and safe environments, an impulse which continues to drive migration today [1, 2].

In the modern era, human migration has been one of the primary forces shaping the nation as we know it today, for example, in the case of the USA or Australia. In other countries and within other times and modalities, human migration was among one of the main social changes of the last century. This is especially relevant to the European continent. Where in some countries (such as England, France, the Netherlands, and Portugal), immigration has essentially represented a "returning" movement induced by colonialism, especially since the end of the nineteenth century. In other countries in the contemporary era, this phenomenon arose mainly in response to the need for foreign labor—initially a semi-skilled and unskilled workforce—and was embedded within older (e.g., in the cases of South Africa, Argentina, Uruguay, Brazil, Belgium, and Germany), or younger (e.g., in the cases of Italy, Spain, Sweden, and Greece) migratory dynamics. Different countries, such as Italy and Spain, passed through distinct historical migratory phases: from being countries of emigration to countries of destination. In this case, these shifts took place after an economic boom and the resulting social growth after the second half of the twentieth century.

While the migratory phenomenon has been widely examined from historical, social, economic, and cultural perspectives, health and healthcare perspectives are understudied. This is a problematic oversight because health is one of the most important aspects of migration. This correlation between "health" and "migration" is in itself dynamic and complex. It is dynamic because it is extremely heterogeneous (there are many different migrant communities) and it is variable, in both the diachronic and synchronic sense: prospective and evolving immigrant generations will experience different socioeconomic conditions in their country of origin and in the destination countries, and they will ensue different possibilities of integration. It is complex—as discussed by an editorial of the medical journal "the Lancet" in 2006—because its primary dynamics influence different migrant communities in various ways. A possible interpretation of this variety and complexity is that of gender because of a multiplicity of health risks linked, for example, to potentially dangerous and violent conditions in the workplace, different discrimination and racism in the destination countries, and so on [3].

Since the 1970s, some epidemiological studies comparing mortality and chronic diseases, especially the cardiovascular ones, between immigrants and natives,[1] have revealed the effects of the environment (e.g., certain diets) and those of the socioeconomic conditions (e.g., income). These studies have contributed to the so-called social epidemiology, and continue today to fuel the scientific debate [4].

When contemplating how to ameliorate the health conditions of migrants, it is possible to adopt a logical framework which considers the various possible stages embedded within a migratory journey [5]. Schematically, the health of a migrant depends on his/her living conditions in the country of origin (pre-departure), on experiences during the travel and the even-

[1]Throughout the chapter, the term 'natives' is used in a general sense: i.e. "people who were already living in that place." Talking about Europe and the European Union, "native Europeans" are referred to; talking about Italy, "native Italians" are referred to.

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tual intermediary stages of this travel (interceptions) and, lastly, on the living conditions in the destination country, the primary stage of interest in this analysis [6].

In relation to the pre-departure phase, we have to consider the geopolitical and socioeconomic conditions in the country of origin, as well as the personal and familiar position of the migrant (with a specific focus on the level of education and income). This approach allows for an easy localization of the so-called push factors, those factors which trigger the decision to migrate. Talking for instance the tragic state of affairs in Syria at this time, we can say that the situation of the war has produced an exodus of millions of people, many of them having a medium to high level of education and good economic resources. In considering the possibility of existing diseases in the country of origin, although it is possible to find people already affected by diseases in populations forced to migrate due to wars or persecutions (which is generally the case where international protection is concerned), it is usually rare in those populations migrating for economic reasons. Indeed, a good state of health is usually a fundamental prerequisite for a migrant, especially in the case of first-generation economic migrant. This is due to the fact that being physically active and psychologically "strong" (especially when considering the capacity of adaptability to a new context) are the main sources of strength, which will determine the success of the migratory endeavor. This reasoning, which has been verified by epidemiological data (e.g., the minor mortality rate of migrants in relation to the local population [17]), is at the basis of the so-called healthy migrant (or immigrant) effect. This theory posits a kind of self-selection of the healthy individuals prior to the departure from the country of origin. This is of course not a universal and systematic mechanism. However, it is nevertheless evident that youth, a predominant feature of the larger majority of people migrating for economic reasons, provides a protective barrier for one's personal health. Moreover, within the logic of a larger non-nuclear family, it would make sense to allocate communal economic resources to those possessing good health and the capacities to face unexpected situations, generally the younger members of the family. Following this logic, these members would maximize the possibilities of migratory success, and, as a result, are most likely to return the support in the form of remittances from the destination to the origin country.

The phase of the travel can last from a few hours (e.g., a flight, or a ride on the bus or in a car) to many months. This diversity engenders a great variability in terms of health risks. Generally, a migrant who is in the condition to enter regularly and legally another country does not encounter any risks. Conversely, the travel of the so-called forced-migrant (seekers of international protection due to humanitarian and environmental threats) is full of latent dangers, which are usually unpredictable in their times and modalities. These dangers are usually minor if the person is able to pay the so-called human traffickers. In recent years, for example, the Mediterranean Sea has become a graveyard for thousands of people who tried to cross it through various makeshift means, or in overloaded and unsecure boats, leaving them at the mercy of the sea, storms, and ruthless "people smugglers." The blog "Fortress Europe," which compiled the accidents documented by the international press over the last 30 years, calculated that since 1988 to January 2016 27,000 people have died along European borders, with 4273 dying in the year 2015 alone. As news of shipwreck survivors has been extremely rare, it is possible that the real numbers of dead may be higher still [7]. According to the

International Organization for Migration, of the total number of 250,000 people who landed on the Mediterranean coasts in 2016 (data updated at the end of July), more than 3000 died (to be exact 3034) [8]. When people do not perish while travelling over land or at sea (e.g., dying of exposure in cold storages, or asphyxiating inside commercial trucks where people place plastic bags over their heads so that the border police would not find any CO_2 emissions), the extreme conditions of travel still place a person's health at high risk. For instance, extreme dehydration (when a migrant does not have sufficient liquid intake), or immersion in gasoline while travelling by boat (liquid usually mixed with urine which becomes a particularly aggressive irritant for the skin) often generates severe burns [9]. Other times, health risks are magnified by the intrinsic vulnerability of the migrant during travel, for example, in cases of pregnant women, infants, and disabled people.

Frequently, some "obligatory" interceptions occur when migratory routes are not agreed upon between countries of origin and destination, the circumvention of which then depends upon the contractual economic power and organizational skill of the migrant him/herself. These "obligatory" interceptions are generally dangerous for the life and the health of the migrant who risks exposure to various forms of exploitation and extreme violence. For example, a large majority of the migratory routes from Sub-Saharan Africa must pass through Libya, where many people are taken and imprisoned in inhumane conditions, held captive until a ransom is paid by the relatives of the migrant (who are contacted by phone with the desired demands). Many women face individual or collective rape, which may be repeated over time. Beyond the unintended pregnancies, the reason for which many female migrants start taking hormonal contraception before departure, there is also the serious risk of contracting sexually transmitted diseases. A less severe form of suspended migration, which is nevertheless a source of deterioration of the migrant's health, happens when, following the Regulation of Dublin III, the asylum seeker is kept in (or taken back to) the first country of entry in Europe [10]. The inability to arrive at the initially planned destination, a decision usually dictated by the intention to reunite with family members living in European countries, can have negative impacts on the health of a migrant. The same situation of the "undesired stop" can happen to economic migrants who are not allowed to cross a European border, especially when the politics and application of European norms are particularly rigid. Historically, different migratory "waves" organized their intermediary stops depending on various strategic or logistical opportunities. This is, for example, the case with a consistent portion of Polish emigrants in the 1980s and 1990s. Although they wanted to reach North America, they passed through Italy because there was a strong network of religious institutions sympathetic to the Polish people because at that historical moment the Pope was one of their fellow countrymen, Kairol Jozef Wojtyla.

The last migratory phase takes place in the country of destination. There, in most cases, new generations will be born, family reunions will happen, and newly arrived migrants will join preexisting communities. Here, the health of the migrant will be determined largely by the outcome of his/her social integration and by the success (or lack thereof) of his/her migratory project.

The most effective theory to analyze health dynamics of migrant communities in destination countries is using the "social determinants of health." This examines the impact that

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fundamental socioeconomic and cultural factors have on the health of a person, for example, education, income, type of work, housing conditions, diet, access to water and hygienic services, the possibility to access sanitary services, the presence and strength of a social network (social cohesion) [11]. When the exposure of the migrant to these determinants (in particular the income) is positive, a kind of virtuous circle is activated, supporting and protecting the health of the person. For example, when employment is found quite rapidly, so as to become a stable source of income, the migrant is able to sustain a dignified living. If he migrated by himself, there is the possibility to bring his family to join him, pay for living expenses (e.g., food, children's education, public or private transportations, etc.). *Vice versa*, when the socioeconomic integration is difficult, and it is usually worsened by an inadequate knowledge of the language of the host country, the migrant will be exposed to physical and psychological risks and experience health inequalities [12]. Inadequate nutrition, precarious housing with poor hygienic conditions, and the emerging feelings of failure, solitude and anxiety, concerns about the family living far away, are difficulties that need to be dealt with. In these cases, it is important to remember that many migrants have undertaken significant debts to pay for their travel, debts from which they must extricate themselves precisely when the state of their settling is at its most delicate and precarious. In the end, the accumulation of all these difficulties and obstacles (sometimes exacerbated by exposure to exploitation, discrimination, violence, and racism) produces what is known as the "exhausted migrant effect." Whether the migratory project is successful or not, the objective criteria of sanitary protection are extremely important, in terms of both prevention and assistance in the host country. This usually depends on the concrete juridical recognition of the right to health and of its eventual limitations.

In other words, health and its promotion depend upon the capacity to express inter-sectoral protective and convergent policies. Beyond this, the health sector alone could play an important role in favoring and guaranteeing access to usable services.

As we will attempt to demonstrate in this chapter, the protection of the health of migrants (independently of their juridical status!) is a form of investment typical of a National Public Health System. This investment generally produces positive spillovers on both the direct subjects (migrants) and the local communities (natives).

2. Migrants' right to health at the international level

The ethical-legal perspective is inevitable when addressing the issue of migrants' health [13]. It is clear that the recognition of the protection of health as a universal right, unconditionally held by every individual without the constraints of meeting specific requirements (such as citizenship or residence permit), is the basis of policies and of any possible forms of protection at both global and local level.

There is an identifiable thread, connecting the different statements from various important institutions regarding the issue of immigrants' health expressed at an international level [14]. Some deal with this issue indirectly, for example, the various conventions, recommendations, declarations, action plans, which, from the 1950s until the present, have included different

categories of subjects (e.g., workers) and "vulnerable" populations (e.g., women, children, the disabled, the elderly, refugees, and displaced persons), and stress the need to avoid discrimination of these groups [13, 15]. Other documents deal with this issue, again indirectly, by considering health as one of the various dimensions that characterize international immigration and development.

Others identify this theme as a central and specific issue. Among them, and of particular prominence, is the Resolution of the 61st World Assembly of Health, which invites the Member States to promote and support various lines of intervention. Among these lines is an invitation *"to promote equitable access to health promotion, disease prevention and care for migrants, subject to national laws and practice, without discrimination on the basis of gender, age, religion, nationality or race"* [16].

Focusing solely on the European context, it would be useful to recall, inter alia [17–19], three documents.

In September 2007, the Conference "Health and Migration in the EU: better health for all in an inclusive society" took place in Lisbon (during the period in which Portugal held the Presidency of the European Union (EU)). The Conference produced some very interesting Conclusions and Final Recommendations. It upheld the following assertions:

- immigrants represent a resource for the European Union; European migration policies have to be re-defined;
- universal access to healthcare assistance has to be seen as a prerequisite for European public health and is an essential element for its social, economic, and political development and for the promotion of human rights;
- immigrants' health protection must not be seen solely as a humanitarian cause, but principally in terms of the need to reach the highest level of health and well-being for all in Europe.

The final messages of the Conference can be summarized as follows:

global problems require global solutions, and health and migration are two global phenomena which require urgent global responses of which the EU should assume a leading role, and the reduction of poverty and the promotion of the integration of immigrants are key initiatives which must be undertaken.

Given that the lack of access to qualified health care is a central issue for immigrants, the Conference recommended the prioritization of equal and culturally sensitive access for all immigrants. Strengthening cooperation with the aim of fulfilling essential health needs is crucial for preventing disease and ensuring better health everywhere in today's globalized world context, and urgent political decisions should open the way to practical solutions [20].

Less than 2 months later, the Eighth Conference of the Ministers of Health of the 47 countries of the Council of Europe took place in Bratislava in November 2007, with the title "People on the Move: Human Rights and Challenges for Health Care Systems," at which the "Bratislava Declaration on health, human rights and migration" was approved [21]. The Declaration, recalling other statements such as the European Social Charter, and demonstrating a systematic

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interpretation of the binomial "health and migration," set out 20 areas of duties *"to address the challenges that human mobility generates for human rights within the health field and for health care systems…"*

With reference to the right to health, the Charter stresses that:

We, the Ministers of Health of the forty seven member states of the Council of Europe […],

ARE RESOLVED TO:

1. *Focus on ethical and human rights aspects when addressing health issues of people on the move through cooperation with other international organisations, including NGOs*; […]

AND TO THIS END RECOMMEND TO […]

2. *continue to promote policies incorporating the ethical, social and human rights dimension into health policies, taking account of specific needs of vulnerable groups, including migrants*;

3. *strengthen the Council of Europe's role as a guardian of human rights and social cohesion by including the components of solidarity and intercultural dialogue in European health policies, encompassing migrants, refugees and other "people on the move"*;

4. *invite the European Health Committee (CDSP) to take into account, in its future work, the ethical and human rights dimension of migration including an international code of ethics in health care for "people on the move"* […] [21].

Finally, in March 2011—due in part to the support of various NGOs [22–24]—the European Parliament approved a "Report on reducing health inequalities in the European Union," exhorting the Member States to confront the inequalities in access to health care, including those faced by illegal/irregular/undocumented immigrants, especially pregnant women and children [25]. It emphasized that

"… health inequalities are not only the result of a host of economic, environmental and lifestyle-related factors, but also of problems relating to access to healthcare" (point P)

and that

"… in many EU countries equitable access to healthcare is not guaranteed, either in practice or in law, for illegal / irregular / undocumented migrants" (point AD). Among other recommendations, the European Parliament called upon the Member States

"…to ensure that the most vulnerable groups, including undocumented migrants, are entitled to and are provided with equitable access to healthcare;

…to assess the feasibility of supporting healthcare for illegal / irregular / undocumented migrants by providing a definition based on common principles for basic elements of healthcare as defined in their national legislation" (point 5);

"…to promote access to high-quality legal advice and information in coordination with civil society organizations to help ordinary members of the public, including undocumented migrants, to learn more about their individual rights" (point 8);

and

"…to ensure that all pregnant women and children, irrespective of their status, are entitled to and actually receive social protection as defined in their national legislation" (point 22).

In summary, it would appear that, in light of the events of the last decade, a common understanding has developed at an international, and, more specifically, the European level, regarding the complex background and consequences of human mobility and health. This vision may be interpreted as being based upon the principle of the right to health, conscious of the significance of incorporating within government policies not only an ethical but also a social dimension, and paying special attention to the most vulnerable groups of immigrants. The perspective has to be culturally sensitive and inter-sectoral [14].

In spite of the clarity and completeness of this vision of the migratory phenomenon, when it comes to its implications it is necessary to emphasize the precariousness and the uncertainty of the processes of implementation at the local level, taking into account the non-binding nature of these pronouncements. More specifically, the European Union does not have any coercive influence upon the individual Member States in regard to the health protection of immigrants, due to the "principle of subsidiarity," which implies that intervention by the European Community is only mandated when the goals of the planned action cannot be sufficiently achieved by the single Member States acting alone [26].

Moreover, it has been noted that the current economic and financial crisis regrettably poses a significant risk to the application of these statements regarding the right to health. An example of this problem is the restriction of health care for immigrants and, even more notably, the stigmatizing approach of labeling immigrants as a source of infectious risk for the native population, including health as a pretext for deportation to the countries of origin, as occurred around 2012 in Greece, a country that is the "symbol" of the current European crisis [27]. More generally, it must be recognized that the right to health and to health protection of migrants are adversely affected by demagogic and populist, if not openly racist, ideological orientations [4].

In several countries, the purported non-sustainability of healthcare costs for migrants is used to justify closure policies, which are more concerned with electoral response than actual policy reform. In reality, it is more often the case that immigrants, through the payment of taxes, contribute more to the socioeconomic well-being of their host countries than what they receive in terms of services, including publically provided health care [28]. In other countries, racist announcements are circulated to attract large groups of people who are drawn in by sensational and dramatic media coverage, and consequently frightened in adopting an "us versus them" mentality.

In modern and contemporary history, the phenomenon of human mobility has met, and continues to meet, obstacles and resistance that have obvious repercussions on the health promotion and healthcare provision. These complications are particularly related to defining and protecting boundaries, which consequentially draws on the idea of the Nation-State, to the perception of a threat to cultural, ethical, and religious values of the host society and to its socioeconomic stability, to fear, or to open hostility toward those who are different. This, paradoxically, is often done without distinguishing the different types of migrants, even

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involving asylum seekers and refugees, which should be better protected by international conventions and laws.

2.1. General considerations regarding the approach to the health needs of migrant communities

Together with the importance to recognize the right of migrants to the protection of their health (the ethical-legal dimension) by various countries, the health of migrants' communities is linked to the level of efficiency regarding the interventions targeting them, the so-called techno-operational dimension. These interventions (which make up the "health service offer") should be consistent with the "health needs" and healthcare needs of the immigrants and with a verified clinical efficiency, which is valid from an appropriate scientific point of view.

The possibility of obtaining reliable data on migrants' health, based on health determinants and on the usage of sanitary services, and being able to correctly interpret these data, is an essential pre-condition to identify their health needs in order to offer appropriate and accessible sanitary services [19, 29].

Collecting the different levels of "demand for assistance" is not sufficient by itself, nor does it generally reflect the true health needs of foreigners. Aside from the fact that the demand for sanitary assistance can stem from people who usually have no medical or scientific knowledge, this demand can also be influenced by sociocultural and psychological variables. This implies that the demand itself is affected by the level of language competency, "health literacy," and the diversified knowledge of the sanitary system's organization (which determines the configuration of the "offer"). This is also evident for native groups, but in the case of immigrants, the influence can be even greater. For example, within immigrant populations, a higher level of inadequate usage of sanitary services has been recorded (both in the cases of over- or under-usage) [30]. When considering primary and secondary preventive care, the offer of sanitary services cannot be contingent upon the demand. In other words, when people are healthy (whether in appearance or in fact) they do not perceive any health needs, particularly if they lack available information and knowledge. But the preventive care culture varies from country to country, and normally it is weak or even absent in the countries of origin of most migrants. For example, it has been demonstrated that some groups of migrant women have minimal familiarity with oncological prevention, which is widely practiced in the receiving countries, such as screening for the presence of a carcinoma of the uterine cervix by performing the Pap test. It has been observed that, in the case of a positive test result, the carcinoma of a migrant woman is at a more advanced stage than that in a native woman, due to the delay of screening [31]. Therefore, it is important that sanitary systems implement "active offer" interventions, which is provided by the sanitary system and is free of charge for these so-called hard to reach groups in order to reduce or eliminate the greater risks they usually face. Another example, where better information and prevention would improve health outcome, relates to occupational health risks (especially occupational health hazards in the construction sector in the timber or leather industries). In this case as well, it

has been demonstrated by studies enquiries that migrant workers are more vulnerable than the local populations [19, 30].

In both examples and in the international context, the availability of data of a current health information system has made it possible to gather evidence that migrants encounter greater health risks than natives. In fact, using this system, it was possible to disaggregate reliable data relating to immigrants and compare them with the group of natives or with specific subgroups of immigrants. The publication of these data is the fundamental basis for expressing scientific evidence-based guidelines, diversifying them for different immigrant groups [32–34].

It is no coincidence that the Resolution of the 61st World Health Assembly cited above mentions in its invitations to the Member Countries the following aims: *"to establish health information systems in order to assess and analyse trends in migrants' health, disaggregating health information by relevant categories"* […] and *"to gather, document and share information and best practices for meeting migrants' health needs in countries of origin or return, transit and destination"* [16].

The possibility of conducting quantitative research, which could allow for an evaluation of the health needs of migrants, depends on the following:

- the local cultural sensitivity in relation to the importance of data/information; the availability of reliable databases (e.g., a national statistics institution);
- the activation and the maintenance of qualitatively good and reliable sources of sanitary information;
- the presence—in the abovementioned informative systems or in other "record-linkage" systems—of useful information to more appropriately interpret existing sanitary data (e.g., aside from the country of origin, citizenship, and nationality/ethnicity, also religion and language); and
- the identification and construction of valid and powerful indicators to be used internationally [35].

This need can clash with a scarce epidemiological culture or with techno-managerial difficulties (e.g., the unavailability of adequate computer systems), with institutional public concerns related to the right to privacy and the correct usage of sensitive data, or with resistance by health personnel to correctly and systematically register information. Although extreme caution on the part of competent authorities is understandable, it is necessary to convince the authorities that, in relation to the right to privacy and to the legal usage of sensible data, this information can allow for preventive care intervention, and thus protects the migrant communities. For example, the registration of a familial migratory history of third-generation subjects could pinpoint to psychological risk factors. Without collecting these data, these factors would not be highlighted. This transparency of data would permit certain targeted socio-sanitary interventions to be realized.

Another aspect of interest is the homogeneity of information registration to allow for a comparison of the data at the international level. Regarding this issue, there are some generally

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well-consolidated data gathering practices concerning certain health variables and areas, for example, general or case-specific mortality rates, data on the frequency of transmissible or non-transmissible diseases, data related to hospital admissions or vaccination practices, and so on. There are other areas that are less "explored" due to lack or limits of specific information sources, for example, that of primary care or rehabilitation.

Importantly, the possibility of connecting certain health variables, such as suicide or psychological problems with socioeconomic variables, for instance education, income, residence, length of permanence, level of language, social networks and degree of social connection would be extremely useful. Unfortunately, this is often impossible to implement because of a lack of attention to the importance of social determinants of health. It would have great potential allowing research in the field of so-called social epidemiology to be conducted. It would reveal the existence of inequalities in relation to health and sanitary assistance and interpret their dynamics when considering migrant communities.

Aside from the continuous availability of databases and related health information systems, it can be useful to conduct occasionally "ad hoc" enquiries in order to evaluate health needs. For example, some enquires can help to evaluate self-perceptions of health within some groups of migrants, identified by nationalities or variables such as employment categories (e.g., caregivers for the elderly), initiate epidemiological enquiries in order to identify the health status in a certain context (e.g., jail), conduct research in relation to specific lifestyles (e.g., eating habits of teenagers belonging to certain migrant communities), or examine some characteristics of the usage of certain sanitary services (e.g., maternal and child health care).

Acknowledgment of the effectiveness of using a mixed methods approach (quantitative and qualitative) is also growing. Qualitative methodology often offers valuable insight into how to interpret the results of the quantitative data and vice versa. In the case of abortion, Italian standardized data established that the rates were three times higher in migrant women than in Italian women [36]. Conducting interviews with women belonging to prevalent foreign communities has established certain variables and sociocultural conditions, which were identified as motivating factors for abortion services [36].

An intrinsic strategic value of qualitative research is to strongly favor the involvement of migrant communities within the research, for example, through focus groups, structured interviews, or questionnaires. Indeed, despite the impossibility to generalize from single experiences, the direct expression of the health needs of the immigrants themselves offers helpful suggestions for decision makers. This information does not necessarily translate directly into specific interventions, but rather suggest more appropriate modalities in which to implement them.

2.2. General considerations regarding the definition of health policies and the organization of health services

According to the aforementioned 2008 World Health Assembly Resolution on the Health of Migrants, Member States have an obligation to implement on migrant-sensitive health policies and practices (see Box 1) [16]. One of the most significant lines which calls for action claims

that members should: *"devise mechanisms for improving the health of all populations, including migrants, in particular through identifying and filling gaps in health service delivery."*

The 61st WHA Assembly calls upon Member States:

1. To promote migrant-sensitive health policies
2. To promote equitable access to health promotion, disease prevention and care for migrants, subject to national laws and practice, without discrimination on the basis of gender, age, religion, nationality, or race
3. To establish health information systems in order to assess and analyze trends in migrants' health, disaggregating health information by relevant categories
4. To devise mechanisms for improving the health of all populations, including migrants, in particular through identifying and filling gaps in health service delivery
5. To gather, document, and share information and best practices for meeting migrants' health needs in countries of origin or return, transit, and destination
6. To raise health service providers' and professionals' cultural and gender sensitivity to migrants' health issues
7. To train health professionals to deal with the health issues associated with population movements
8. To promote bilateral and multilateral cooperation on migrants' health among countries involved in the whole migratory process
9. To contribute to the reduction of the global deficit of health professionals and its consequences on the sustainability of health systems and the attainment of the Millennium Development Goals

Box 1. Recommendations of the resolution of the 61st World Health Assembly (2008).

The value of this call for action is not only to identify existing discrepancies in delivering welfare health services and making these known to decision makers, managers, and professionals, but also to remind them that migrants may be one of the various population groups left vulnerable by those inequities. It is implied that interventions on behalf of the immigrant population should not exclude other groups of the population that can be similarly disadvantaged.

Together with this directive line of action, there is another one outlined in the Bratislava Declaration of 2007. This latter invites members to: *"Work toward overcoming the barriers to the enjoyment of the access to protection of health for people on the move through capacity building and awareness raising for health providers, policy makers, health management planners and health educators as well as other professions allied to health services delivery"* (see Box 2) [21].

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Work toward overcoming the barriers to the enjoyment of the access to protection of health for people on the move through capacity building and awareness raising for health providers, policy makers, health management planners, and health educators as well as other professions allied to health services delivery

Support public health research to enhance and strengthen national and international surveillance and information systems and to strengthen and support evidence-based programs for the health of people on the move

Take steps to reinforce and incorporate the health dimension into development and cooperation policy following the principle of "health in all policies"

Promote migrants' participation in program planning, health services delivery, and evaluation

Take steps to train and educate healthcare providers, policy makers, health management planners, and health educators, as appropriate, on addressing healthcare issues associated with population mobility and disparities in health services between geographical locations

Encourage host countries to consider the invitation of the Parliamentary Assembly in the Resolution 1509 (2006) to eliminate any requirement on health service providers and school authorities to report the presence of irregular migrants to the authorities

Box 2. The "Bratislava Declaration on health, human rights and migration" (2007) Extracted from the duties.

This reference to potential barriers is particularly important: aside from those regulations (as linked above to the right to health protection), immigrants can encounter bureaucratic, economic, organizational, lingual, psychological, and cultural barriers. Confronting these barriers can become a turning point in achieving full health protection for migrants and the promotion of equity in relation to their health [6, 14].

This change would involve promoting the so-called availability (functioning public health and health facilities, goods, services, and programs in sufficient quantity), "accessibility" (non-discrimination, physical accessibility, economic accessibility or affordability, information accessibility), "acceptability" (respect for medical ethics and culturally appropriateness, sensitivity to age, and gender), and "quality" (scientific and medical suitability) of health services [6]. Of course, ensuring that migrants are aware of their rights and of the nature and operation of the health system of the host country is fundamental, although not always sufficient. Proper information of all public health services should go hand in hand with continuous care for all the processes of integration and make the most of all meetings during which contact is being made with migrants. Aside from the formal channels (TV, radio, newspapers, institutional websites, and advertisements on public transport), information regarding health services should be spread by key figures of these communities (leaders, speakers, religious representatives, teachers in the community), and by schools. Important figures in healthcare systems are general practitioners, community nurses, obstetricians, pediatricians, and cultural-linguistic mediators.

Another strategic element is the adequate training and regular updating of the health, social, and administrative personnel of the health system, which is (or can become) a point of access to the migrants' community, in order to promote the so-called cultural competency and challenge discriminatory behaviors and attitudes [16, 20]. This training should take place in groups of small numbers (30–40 people) with various professional figures present at the same time (interprofessional education). There needs to be a systemic, complex, and multidisciplinary approach "built" on the educational needs outlined ahead of time with the collaboration of those operators toward whom the services are also addressed. If possible, it is useful to adopt types of education and training more engaging, such as training on the work site, education based on experience, working groups, or "role playing." Having acknowledged the peculiarity of the theme and its important communicative and relational implications, it is advisable to limit distance training. Where distance training is necessary, it needs to be supported by meetings and discussions.

Cultural-linguistic mediation in health is also relevant. First of all, it must be said that, from the linguistic perspective and, following the empowerment of the migrant and his/her community, the principal instrument of autonomy possesses a sufficient knowledge and capacity to speak the language of the host country. In this sense, a special effort should be made to encourage learning of the language. We consider basic language examinations necessary to receive some rights, in particular that of citizenship. However, there remains the fact that especially in the first phase of immigration, many migrants would still need people to mediate between themselves and the health system, whether this is in an administrative-bureaucratic organization, a clinical service, or consulting a healthcare professional.

Aside from the possibility of finding individuals to fill the specific role of cultural-linguistic mediator, we think they should not necessarily belong to the specific community of the patient, a viable option would be to draw upon professional figures who already work within the health services and are of foreign origin and create a connection between the patient and his/her required services. The utility of the linguistic-cultural mediator is beyond question. However, this person should not be identified as a "*deus ex machina*." It would be wrong (and even dangerous) to assign all the functions of welcoming, listening, interpreting, informing/explaining, and supporting to the sole figure of the cultural-linguistic mediator. From the perspective of inclusivity, it is essential to create the mediating function of the system so that it encompasses all services' operators, from the administrative desk to surgery. In other words, the cultural competence should be stimulated in all operators.

The development of policies and resulting actions (and even earlier, the analysis of health needs) cannot leave aside the necessary involvement of the migrants' communities and of the civil society organizations working with these communities (NGOs included), and at the technical-scientific level, the scientific societies, all of whom are involved in different ways. Such involvement should be ongoing, not occasional; requested and supported from within the organizations and their teams, for example, inside the "local observatories" or within "working groups" on migrants' health; and for allowing discussions between the different actors on equal footing. This "bottom-up" approach and network logic have been proven to increase efficiency in practice. This is so because the interventions necessitate

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active collaboration between the recipients and the other stakeholders, making it more functional and consistent in terms of "accountability," as well as answering a call for democratically managing of public resources.

In order to promote migrants' health as part of the international agenda, the World Health Organization (WHO), in collaboration with the International Organization for Migration (IOM) and the Spanish Ministry of the Social and Health Policies, organized a global meeting on migrants' health in Madrid during March 2010. From this meeting, the report "WHO-IOM. The way forward" [35] was produced.

In particular, this report presents an outline for an operational framework to guide action by key stakeholders, which suggests key priorities and corresponding actions in each of the following thematic areas:

- Monitoring migrant health
- Policy and legal frameworks
- Migrant-sensitive health systems
- Partnerships, networks and multi-country frameworks.

We are convinced that the recommendations provided in this report present the right direction in which to move forward. The central point is the cultural dimension.

2.3. A case study: health protection's policies for immigrants in Italy

"The Republic safeguards health as a fundamental right of the individual and as a collective interest, and guarantees free medical care to the indigent…" .
(The Italian Constitution, 1948 - 32nd Article).

Situated in the South of Europe in the center of the Mediterranean Sea, Italy is a country of more than 60 million inhabitants. It is one of the founding and current members of the European Union. For more than 100 years, starting from the second half of the nineteenth century, Italians have settled around the world, particularly in North and South America and Central Northern Europe. Since 1861, when the Kingdom of Italy was proclaimed, more than 24 million Italians have emigrated, a population size almost equivalent to that of the nation itself following unification. From no other European country, and for over such a period of time, has a constant stream of emigration occurred. According to estimates by the Italian Minister of Foreign Affairs, there are currently between 60 and 70 million people of Italian descent living outside of Italy (the so-called oriundi). The countries where they are most dominant are Brazil (with more than 27 million), Argentina (with almost 20 million), the United States (with more than 17 million), France (with four million), Colombia (with two million), Canada (with nearly 1.5 million), Peru (with 1.4 million), Uruguay (with 1.2 million), Venezuela (with one million), and Australia (with more than 900,000). While in the United States and in France Italian descendants make up around 6% of the total population, in Colombia, Canada, and Australia they are almost 4%, in Argentina and Brazil the "Italians oriundi" are estimated to represent around 47% and 13% of the total population, respectively.

Furthermore, the number who reside abroad, but still hold Italian citizenship (and have the right to vote in Italy), are estimated to be five million, of whom almost 85% are equally distributed between North and South America and Europe [37].

For the first time in 1973, a "positive net migration" was registered, and the number of immigrants in Italy was found to be higher, by a small percentage, than the number of emigrants. Since then, immigration in Italy has grown constantly, and sometimes exponentially, going from hundreds of thousands of people in the 1980s to the current presence of five million foreigners, equaling 8.3% of the total resident population [38]. Their distribution across the nation is uneven and largely determined by opportunities for work: almost 60% of the immigrants live in the north, 25% in the center, and 15% in the south. Because of the recent global economic crisis there was a decline of immigrants to Italy and an increase of people leaving Italy, this added to the growing number of Italians who migrated mainly to other European countries. Although the social perception of immigration, as broadcasted by the media, is one of "invasion," according to accurate statistical predictions, new entries of foreigners into Italy (only a relatively small part remains permanently) cannot guarantee any demographic equilibrium of the Italian population (which decreased by 150,000 people in 2015) [39].

The geography of Italy (a peninsula with almost 7500 km of coasts, but less than 2000 km of inland borders, all in the North) has made it, together with Greece, a central position of the migratory fluxes passing across the Mediterranean Sea. The principal routes originates from Africa (Horn of Africa, North Africa, and a part of Sub-Saharan Africa) and from the Middle East and Asia (Afghanistan, Syria, Pakistan, and Bangladesh). In 2015, almost 154,000 people, a combination of asylum seekers and economic migrants landed in Italy [39]. As in 2014, the large majority of these migrants did not see Italy as their final destination, but countries in Central-Northern Europe such as Germany, France, the United Kingdom, and Sweden were their destinations. Due to the current European regulations, which draws upon the Schengen treaty (specifically with "Dublin III"), these people have the right to apply for asylum only within the country of entrance in Europe [10]. In the case that they reach a second country of the European Union and apply for asylum there, they are sent back to the first country were they arrived. The current situation is an acute crisis, mainly linked to the conflict in Syria. Italy's request to redistribute migrants across the different European countries has created strong tension within the EU. In fact, a bloc of countries from Central-Eastern Europe, where nationalist parties, sometimes of a xenophobic nature, have a stronghold, have refused to accept their share of the relocations as decided by the EU, and have physical barriers, such as barbed-wire fences and walls, as well as turning a blind eye to the high degree of violence by their armed forces, in order to reinforce their resistance [39].

A peculiar characteristic of the Italian situation is the diversity of the foreign communities; there are almost 200 of them, and the resulting variety of languages and sociocultural backgrounds. This distinctive feature has different spillover effects, for example, in creating the concrete possibility of using a cultural-linguistic mediator in providing public services.

The first systematic national law on immigration in Italy dates back to the early 1990s; previous laws only partially regulated immigration in some aspects, for example, in the work sector. This set of regulations was revised in 1998, and again in 2002. Without looking at any

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of the complex technical-juridical aspects, it is evident that the core of these regulations has been conditioned by both the prevailing social feeling of the population during those years and the government's position at the time of the juridical revision. In analyzing the various laws and regulations, it is possible to discern that the image of the typical immigrant in Italy varies greatly. The images include that of the worker (being useful in the production sector), to that of a person who, apart from participating in the socioeconomic growth of the country, also has the right to have a family (or start family reunions' practices), participate in public life, and integrate into society.

As in the rest of the world, the possibility of entrance and integration into the new society in Italy for a migrant is strongly linked to the juridical environment, and to aspects such as the educational level, income, knowledge of the language of the host country, and the presence of his/her community. However, it must be noted that, unlike other countries, the set of regulations adopted in Italy made many immigrants vulnerable to instability regarding their status as legal immigrants. This is due to the fact that there were, and still are at present, certain difficulties in both getting a regularized permit to remain in the country and renewing it periodically. Reasons are that it is often impossible to provide proof of income, or are cases where a family member needs to be taken care of. Overall immigrants are more likely forced to turn to the "black" market, the informal labor sector, than native Italians. Sometimes, because of language difficulty immigrants find it hard to compete in the open market.

The principal distinction used, aside from the general one of "asylum seeker" and "economic migrant," is that of the "legal," "regular," "documented" and "illegal," "irregular," "undocumented," or even "clandestine" immigrant. The latter, including the "clandestine" immigrant, never received a residence permit to stay. On the semantic level, it must also be noted that the usage of the term "clandestine" is heavily charged with moral judgment. This is unlike other countries, such as France or the United Kingdom, where the lack of permit is the only characteristic highlighted without distinguishing within that category: "Sans papier" or "undocumented," which does not carry the negative connotation.

The ordinary person, with limited information, has great difficulty recognizing the variety of types or descriptions of migrants. Recent explanations have cleared up the difference between "asylum seekers" and the "economic migrant." However, paradoxically, the result was the legitimation of the former and the delegitimization of the latter, strengthening an incomprehensible stigma where emigrating to escape economic misery is not a justified (and thus legitimized) reason in comparison with escaping violence and persecution.

In the past 30–40 years, the social dynamics of integration have developed in nonlinear ways and today we have large numbers of second-generation immigrants (third generation of those communities who had arrived in Italy previously). The lack of reform in citizenship law is evident: unlike most other countries in the world, Italy does not automatically recognize any person born on its soil (*ius soli*) as a citizen. This originates from the past when it was prudent to favor Italian descendants with the rights of citizenship (*ius sanguinis*). In terms of citizenship rights, immigrants who are regularized as residents (legal, regular, documented) but not citizens have no right to vote (active or passive) if they are not EU immigrants. In relation to social integration, it is useful to see how, unlike other countries accepting immigrants where

the official language is internationally widespread (notably English, Spanish, and French), Italian is a language scarcely used outside of its homeland and quite difficult to learn. Italian public schools have played a fundamental role in improving integration by upholding every individual's right to be educated, regardless of race, nationality, or culture, and by opening its doors (without economic barriers) to the children of irregular (illegal, undocumented) immigrants. We have today in Italy more than 800,000 "foreign" minors registered in the Italian schools; more than half of them were born in Italy.

Following this overview of the context, history, and principal characteristics of the migratory processes in Italy, we turn to the policies pertaining to the health of immigrants.

The current regulations on the available healthcare services for immigrants date back to a comprehensive law, entitled "Single Text on Immigration" (D.Lgs. 286, articles 34th, 35th and 36th) which was approved in 1998, and successive regulatory provisions (mainly the DPR 394/1999, articles 42nd, 43th and 44th and the Circular n. 5/2000 of the Health Department) [14]. First of all, it must be emphasized that the "philosophy" of these deliberately "inclusive" health policies can be summarized in two major statements:

1. Equality of rights and obligations, regarding both health and rights to health care, of Italian citizens and foreigners who are legally present (with stay/residence permit, documented, regular migrants), with complete healthcare coverage by the National Public Health System.

2. Broad possibility of health protection and health assistance also for the undocumented (irregular, illegal) immigrants, especially for women and children, and in relation to infectious diseases [14].

These laws pose in fact Italy in an "advanced" position in the international scene: in no other country in the world, we understand, immigrants without a stay/residence permit have the right to be assisted without being reported to the police.[2] Undocumented, illegal, irregular immigrants have the right to receive the necessary treatment, even for prolonged periods of time, free of charge if they do not have the economic resources to pay for the services.

However, this "inclusive" health policy is based on the willingness of part of the local authorities to collaborate. The local authorities, that is, the 21 Italian regions and autonomous provinces, have over time acquired a fundamental role in the provision of social and health services for foreigners, and in maintaining its effectiveness. Indeed, as a result of the changes introduced in 2001 in the Italian Constitution by a Constitutional Law (article 117 of the Constitutional Law n. 3), the Regions and Autonomous Provinces are empowered to define regulations on health issues for all residents, including immigrants, while migration remains one of the issues in which the state maintains complete legal authority. The theme "health and immigration" seems ambiguously suspended between the "exclusive" legislation

[2]In Italy, "stay permit" and "residence permit" are two distinct situations. The possession of "Stay permit" (in Italian "permesso di soggiorno") means the institutional recognition of the legitimacy of the presence of the person on the national territory (and it is a condition that is associated first of all to the migrant); the "Residence permit" (in Italian "permesso di residenza") is linked to the stability of the life of a person in the place where s/he dwells. From an administrative point of view, the two are treated separately, although to get the second permit it is necessary to have already been granted the first permit.

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of the state and the "competing" legislation of the autonomous regions and provinces. The complex process of decentralization named "health federalism," which implies interconnection between the various institutional levels involved in the health system, results in uncertain pathways of responsibility, which can jeopardize the successful application of healthcare policies, preventing them from achieving their institutional mission (as may indeed also occur in matters of health care for Italian citizens) [14].

As an example of the ambiguity that is created between the migration policies and the healthcare policies, we can provide the introduction, of the crime of irregular entrance and stay through the approval of the law n. 94/2009, which is the so-called Security Package. During the parliamentary discussion about the Security Package, there was an attempt, by a notoriously anti-immigration Italian party, to repeal the provision that prohibits health and administrative personnel from reporting illegal immigrants who use health services. This was mainly motivated by ideological reasons. It represented a serious interference in the health sector, and could have posed a serious threat to immigrants' right to health care. Although the proposal was abandoned, and therefore the prohibition of denouncement remains in effect, the introduction of illegal entrance and sojourn being a criminal act and pursuable by the authorities has placed the health professionals (doctors, nurses, administrative staff, etc.) in a difficult practical, ethical, and deontological situation. According to one legal interpretation, a public officer should be obliged to make a denouncement to the public authorities if, during the exercise of his or her profession, the irregular, illegal, undocumented status of an immigrant comes to light. But this is contradicted by another law of the state, the aforementioned "Single Text on Immigration" [14], which sets out the rules on health care for irregular, illegal, undocumented immigrants. These two contrasting laws, regarding the prohibition to and, conversely, the obligation to denounce, have given rise to confusion, ambiguity, and the use of discretion. The regions, which had in part also taken a stance against the proposal for the repeal of the prohibition of denouncement, therefore had to provide prompt clarification of its validity. The Ministry of the Interior subsequently issued a circular confirming that the law on public security had not repealed the previous rules and that, as a consequence, doctors and other workers within the healthcare sector remained obliged to observe the prohibition on reporting irregular, illegal, undocumented immigrants seeking healthcare services, with some limited general exceptions (e.g., firearm injuries) [14].

As a demonstration of the ambiguity that has arisen between state jurisdiction (center) and regional administration (peripheral), we can mention the appeals presented by the Government to the Supreme Court, between 2009 and 2010, on the presumed constitutional illegitimacy of the regional laws on migration in three Italian regions (Tuscany, Puglia, and Campania). These regional provisions were contested by the government on the grounds that they exceeded the competences of the regions. According to the Italian government then in office, local provisions for the protection of the right to health care, if extended to illegal, irregular, undocumented immigrants, would be considered to affect the regulation of the entry and sojourn of such immigrants. These were matters for the exclusive competence of the state. However, the Supreme Court rejected, with regard to health care for immigrants, the government's appeal in all three cases, reaffirming the *"irreducible nucleus"* of the right to health, even with reference to foreigners without a valid stay/residence permit. Indeed, this right to health

is *"protected by the [Italian] Constitution as an inviolable aspect of human dignity"* (Sentence No. 252 of 2001), in conformity with the view already expressed by the Court, according to which *"the foreigner is […] entitled to all the fundamental rights that the Constitution recognizes as owned by the person"* (Sentence No. 148 of 2008) [14].

In February 2007, by means of Legislative Decree No. 30 of 2007, Italy implemented the European Resolution 2004/38/CE in relation to the right of European citizens and their families to move and settle freely within the territory of the Member States. The untimeliness of the measure, nearly 3 years after the European Resolution, and the concomitant entrance (1st of January 2007) of Romania and Bulgaria into the EU, created considerable confusion and widespread use of discretion within the health services. Not only were tens of thousands of "neo-communitarian citizens" immediately excluded from health protection, as they were unable to meet the necessary conditions in order to obtain health assistance (possession of the European Health Insurance Card or legal work and/or registered residency), but the directions later on provided by the central government were unclear and in some cases contradictory (Circular issued by the Ministry of Health on 3 August 2007, 19 February 2008, 24 July 2009, and 11 more in less than a year). For these reasons, the different Italian regions had provided very different answers, not only in relation to procedure but also with regard to possible levels of health care, especially with reference to the socially and economically disadvantaged.

This "pendulum of competences" generates a high level of risk in terms of creating inequalities, not only in the terms of access to health services but also in terms of the health profile of the immigrant population. As a result of the above considerations, at the end of 2008 an Inter-Regional Committee was established by the Health Commission of the Conference of Regions, in order to create a stable form of collaboration among the regions, as well as a form of negotiation between the regions and the state, on the issues of immigrants' health and healthcare assistance, and to reduce the discretionary interpretation of national laws. After 2 years of work, the Committee produced the document "*Directions for the correct application of legislation for health care assistance to the foreign population by the Italian Regions and the Autonomous Provinces*," which was first approved by the Assembly of the Regional Health Authorities and then ratified at national level [14]. Despite all these efforts, differences in the interpretation and practical application of the rules remain between the different Italian regions, often bureaucratic attitudes threaten to override the right to health care for immigrants. A recent advocacy action successfully exercised, in particular by the Italian Society of Migration Medicine - S.I.M.M. (the only Scientific Society in the world with this mission), is the recognition of the right to have a permanent pediatrician, chosen by the parents, for the children of immigrants without stay/residence permits.

3. Conclusion

Migration is a complex phenomenon and the determinants of health can help us to analyze the issue. The success of the migration project usually translates into better health and access to healthcare opportunities, which show the positive impact of the social determinants of health such as education, employment, income, and housing. These are not mechanical and

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linear processes, nor immediate developments. The migration process may in fact represent a phase of stress and risks to mental and physical health, particularly accentuated in asylum seekers, refugee unaccompanied immigrant children, and those who are victims of trafficking and, more generally, victims of physical and/or psychological violence [40, 41]. Of particular importance, in addition to the individual resources of the immigrant (e.g., his/her "coping" mechanisms, ability to adapt to changes and unforeseen, adverse situations, presence of a social network) is the ability of the host society to welcome and integrate the newcomers.

A careful analysis of the health needs of the immigrant communities represents the fundamental precondition for identifying appropriate health and social policies. This involves a commitment to quantitative and qualitative research, possibly with the involvement of the same migrant communities. When not properly supported by appropriate inter-sectoral policies, immigrants will be exposed to hostile circumstances that leave them vulnerable to negative experiences which, in turn, influence their life chances.

Today, public health is facing the effects of these dynamics, in particular with respect to the prevalence of chronic diseases in the most disadvantage populations. This involves the planning of interventions, possibly "community-based," capable of reaching all the present populations, without discrimination, and in some cases the realization of interventions targeted at "hard to reach" groups.

As recommended by many international statements and by extensive medical-scientific literature of the field [3, 4, 6, 12–26, 31–35], it is important that countries recognize health as an unconditional fundamental right, guaranteeing health coverage both to regular, legal, documented migrants and irregular, illegal, and undocumented ones. This implies investment in the services: legal, organizational, and economic resources are needed, linguistic and cultural barriers need to be contested, and training and retraining of staff, aimed at obtaining a cross-cultural competence, requires professional planning. In order to maximize the chances of the effectiveness of such programs, a multidisciplinary teamwork and a "transcultural" approach is very important. Protecting the health of ethnic minorities is both a challenge for governments and a test of the quality of their health systems. One of the main international recommendations is to make health systems "migrant sensitive" [35].

As stated by Michael Marmot introducing a series of articles that recently appeared in an issue of the European Journal of Epidemiology:

"There are some politicians who would argue that to treat migrants well is simply to encourage others to come. Such a view argues, in effect, that individuals be treated as instruments of political policy. This view is immoral. It runs counter to medical ethics that state clearly that all individuals should be treated with dignity. One way to treat people with dignity is to understand and respond to health problems caused by their migrant status" [4].

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Chapter 7

The Impact of Tuberculosis among Immigrants: Epidemiology and Strategies of Control in High-Income Countries—Current Data and Literature Review

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Additional information is available at the end of the chapter

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Abstract

A significant reappearance of tuberculosis (TB) was observed in industrialized countries during the last two decades. This is due to the spread of HIV infection itself and to today's migratory phenomenon as a consequence of wealth disparity, poverty, wars and political persecutions. This proportion is expected to increase and represents an important cause of the overall resurgence of the TB epidemic and drug-resistant TB in Western Europe and the USA. TB is currently one of the leading causes of death worldwide and a health problem in high-income countries. Although WHO global TB report 2015 with its "STOP TB" strategy has the goal to eliminate TB as a public health problem by 2050, TB shows no signs of disappearing despite some decline in high-income countries. In order to intensify the fights against this deadly disease, further efforts should be aimed to improve examination/detection processes to accurately determine all kinds of TB, and how best to enhance TB control through a coordinated medical screening program of migrants for active TB. Migration in itself is not a definitive risk for TB. Stressful living condition, social isolation, poverty, political fear/persecution, and difficulties to access to health care can expose these individuals to the risk of TB infection during and after the migration process. This chapter aims to discuss and highlight all these issues.

Keywords: tuberculosis (TB), latent tuberculosis infection (LTBI), migrants, documented migrants, undocumented migrants, asylum seekers, refugees, Europe (EU)

1. Introduction

Tuberculosis (TB) currently represents one of the leading causes of death worldwide and, despite globally the TB incidence fell by an average of 1.5% per year since 2000 and is now

18% lower than the level of 2000, it has been declared a global health emergency in high-income countries [4]. TB is also the primary killer due to a single infectious disease and, after HIV/AIDS, is the second single disease which causes more deaths in the world [2]. The World Health Organization (WHO) estimates that one-third of the world population harbors latent TB infections (LTBI), 14.1 million people have active cases, 9 million are newly diagnosed per year (9.6 million new TB cases in 2014, of which 58% in the Southeast Asia and Western Pacific regions), and 1.5 million deaths are attributable to TB annually [1–4]. This death toll equals 2% of global mortality, even if it is a disease for which a cure has existed for 70 years.

In relation to HIV infection, more than 48% of TB patients globally had a documented positive HIV test result. In the African region, which has the highest TB/HIV burden, three out of four TB patients knew their HIV status [4].

Although the general decrease [1, 4] of TB cases (globally, the TB mortality rate fell by an estimated 45% between 1990 and 2013 and the TB prevalence rate fell by 41% during the same period) in recent decades has led the medical profession to pay less attention to the presence of high-risk patients, TB continues to be a public health concern in high-income countries, primarily among the foreign-born and migrant population [5]. In fact, a reappearance of this disease was observed since the early 1990s due to other than the spread of HIV infection and the increase in poor living conditions and immunosuppression; it is due to the migratory phenomenon, and an interplay of various push and pull factors are a consequence of wealth disparity, poverty, wars, and political persecutions [6, 7].

There are 244 million migrants worldwide, which is 41% more since 2000. Note that 76 million are in Europe, the continent with the highest number of migrants, followed by Asia (75 million), United States (54 million), Africa (21 million), Latin America and the Caribbean (9 million), and Oceania (8 million), according to the calculations of the latest International Migration Report of the United Nations [8]. Of all the immigrants living in Europe, Germany and Russia have 12 million, the United Kingdom has 9 million, France has 8 million, Spain and Italy have 6 million; while Saudi Arabia has 10 million and Canada and Australia have 7 million, respectively. According to the previous report of the UN [8], the largest number of citizens migrated abroad come mainly from India (16 million), Mexico (12 million), Russia (11 million), China (10 million), Bangladesh (7 million), Pakistan and Ukraine (6,000,000), and the Philippines and Syria with about 5 million migrants.

Immigrants from TB endemic countries account for a significant proportion of TB cases in industrialized countries. It can be anticipated that this proportion will continue to increase, and will represent an important cause of the overall resurgence of the TB epidemic in Western EU and the USA. Most migrants are healthy, but conditions surrounding the migration process can pose health risks such as inequalities in accessing health services, substandard quality of care, marginalization, and discrimination. Thus, the particular condition of "immigrant" predisposes to an increased risk of developing TB, either for increased incidence rates in their countries of origin, or the high rate of LTBI which predisposes to TB for conditions of social fragility and complexity related to the process of migration and multiculturalism found in the host country.

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The chapter is structured as follows:

- Overview and epidemiological features of TB among immigrants in low-TB burden countries.
- Definition of LTBI and risk of progression toward TB.
- Management of LTBI among immigrants and screening practices.
- Essentials of diagnosis of infectious TB among immigrants in low TB burden countries.
- Management and treatment of drug-resistant TB.
- Conclusions and social issues.

2. Overview and epidemiological features of TB among immigrants in low-TB burden countries and screening practices

2.1. Overview and epidemiological features of TB among immigrants in low-TB burden countries[1]

Many migrants originating from countries where TB has a high incidence, including tropical areas [9], have a high risk of acquiring TB before migration. Much of TB burden is concentrated in high-burden settings of Africa and Asia (28 and 58%, respectively) where TB continues to be a cause of morbidity and mortality [5]. Some areas of tropical countries, such as Haiti, Perù, Bolivia, and Suriname, have the highest TB incidence in the Americas (between 100 and 200 per 100,000 inhabitants) [10], whereas Brazil has a high TB burden, but this is not uniformly distributed. In sub-Saharan Africa and in some regions of India, HIV-coinfection and poverty affecting housing conditions, ventilation, nutritional status, education, and access to health care, other than growing urbanization with the consequent overcrowded living conditions, are the most important determinants of TB epidemic in tropical countries [9].

TB remains one of the major public health challenges in North Africa with decreasing gradient incidence from Morocco (the highest) with more than 27,000 new cases per year, to intermediate in Algeria and lowest in Tunisia and Egypt (30 and 17 cases per 100,000, respectively) [11]. In the European Economic Area (EEA), the majority of subjects of foreign origin with TB in 2009 originated from Asia, Africa, and other European countries (34, 28, and 9.5%, respectively) [9, 10, 12]. This proportion continues to increase, and represents an important cause of the overall resurgence of the TB epidemic in the USA and Western Europe (EU) [12]. It can be anticipated that, despite efforts of the industrialized countries to conquer the disease, the incidence of new TB cases in EU varies from very low rates in Scandinavian countries (6–8 cases/100,000 population) to rates as high as 231 cases/100,000 populations in Tajikistan; the Russian Federation is eleventh among the 22 high-burden TB countries [12]. In Italy, where

[1]Low TB burden or low TB incidence countries are defined as those with a TB notification rate of ≤100 cases (all forms) per million population a year. The high-TB burden or incidence countries are countries with the highest estimated numbers of incident TB cases that account for 80% of the global total.

over the last decade the TB notification has been stable at approximately 7 cases per 100,000 people annually, the immigrant population has a relative risk of suffering from TB, 10–15 times higher than the Italian-born population [4]. In fact, the proportion of TB cases of foreigners increased from 22% in 1999 to 46% in 2008 of the total [13]; at the same time, the proportion of drug-resistant TB cases rose to 83% [14]. Almost two-thirds of the cases of TB in foreigners in 2008 occurred in northern Italy, where immigration is more prominent than in other areas of the country [13]. The most affected age group was of young adults [13]. Concurrently in Italy, while the proportion of African-born persons with TB decreased from 51 to 30%, the proportion of cases with TB born in Eastern EU, including former Soviet Union countries, increased from 16 to 33% [14, 15]. In the Italian population, the two most affected population groups are the elderly and the foreign born. The elderly population, due to progressive weakening of both, their general conditions and their immune system, caused by the aging process itself, is at increased risk of reactivation of LTBI. Foreign-born residents, which are at increased risk of developing TB either because of the high incidence rates of TB in their countries of origin or because of the social fragility deriving from the migration process itself [16], account for the increase of TB in people less than 65 years of age and for the great majority of drug-resistant TB cases.

Summarizing, the European countries share a TB epidemiology which is characterized by a decrease of TB incidence in natives but an increasing incidence in foreign-born persons; occurrence of the majority of TB cases in recent migrants and younger age groups, especially those experiencing inadequate living and health conditions; and high percentage of drug-resistant TB among immigrants and previously treated patients [11].

Factors that influence the risk of TB reactivation among immigrants in low TB burden countries include the prevalence of TB in the country of origin, the duration of residence in the host country, and the efficiency and quality of curative and preventive services. As mentioned previously, after the actual migration process, immigrants are exposed to additional risk of acquiring reactivated TB infection because of stressful living in overcrowded conditions, social isolation, poverty, malnutrition, unemployment, and difficulties to access to health care. Generally, TB in immigrants in low-burden countries arises from an active TB infection which occurred overseas. There are also reactivations of remotely acquired LTBI, which occurs months to years after settlement in the host country, or acquired TB as new infection postarrival in the host county through local transmission or during a return travel to the country of origin [17]. Second-generation migrants, who often keep a link with their country of origin, or international travellers including visiting friends and relatives (VFR), especially children, are known to represent high-risk groups for TB [18]. Finally, homeless immigrants and other deprived groups in low-burden countries can have transmission rates as high as some high-burden countries [19].

2.2. Screening practices among adults

Migrants currently play an important role in determining the current epidemiology of TB in low TB burden countries where they are settled. As a consequence, although reports from different high-income countries with well-performing immigration medical screening have demonstrated that foreign-born TB patients do not contribute to the transmission of TB in the

native population [20], there is an increasing interest on how best to enhance TB control through coordinated medical screening of documented as well as undocumented migrants such as migrants or refugees that are arriving presently at the Greek and Italian coasts. Undocumented migrants have been shown to be at higher TB risk than other migrants, as their entry and TB infection is often more recent and their migration and living conditions are worse than those of documented migrants [21].

Immigration TB screening programs for high immigration and low TB incidence countries vary according to the national legislation, resource availability, and public health risk management practices. Moreover, programs differ by whether screening is done for active TB or LTBI, or both. The programs also differ in relation to arrival in the host country, i.e., the migrants' status, such as refugees or asylum seekers, the countries of origin, and tools used to screen for active TB or LTBI [22, 23]. The rationale of these programs is the early detection and treatment of active and often contagious TB cases in order to prevent *Mycobacterium tuberculosis* transmission to the host population of a low-burden country and reduce the burden of imported TB in low-incidence countries. Methods of TB control in migrant populations have historically focused on identifying active TB with accompanying contact tracing, but the yields for this remain relatively low. In this setting, screening can occur before entry (pre-entry screening), at entry (sometimes called port of entry screening), or after entry [24].

In most of cases, active TB immigrant medical screening in high-income industrialized countries for both documented migrants, refugees, or asylum seekers is performed on or soon after the entry (borders such as airport, reception centers/holding camps, migrant centers); 36% (9 of 25 countries including Australia, Canada, Israel, Jordan, New Zealand, France, the UK, and the USA) have a pre-entry TB screening in country of origin for people who intend to migrate; 20% (5 of 25 countries including Norway, Sweden, Switzerland, the Netherlands, and the UK) perform screening at entry [24, 25]. Literature shows that 88% of countries use chest X-rays (CXR) alone or in combination with clinical examination or TST [5, 24]. The sensitivity and specificity of CXR vary from 86–97% to 75–89%, respectively, and according to the criteria of imaging interpretation. CXR alone does not detect extrapulmonary TB (EPTB) which is increasing in comparison to pulmonary TB, especially in low-burden and high immigrant receiving countries [26], and in HIV-positive persons that have higher rates of EPTB compared with those who are HIV-negative.

Sputum smear and culture follow CXR only if this is found to be abnormal. The destiny of migrants to enter the host country depends on the outcome of these tests.

An interesting and original active TB finding approach was recently investigated by Schepisi [27] in Italy, a country where there is no TB national screening policy for new entrants [28]. Italy is a country with a TB incidence rate of 5.3/100,000 persons with 3.153 cases in 2013 [29]. TB cases are especially concentrated among high-risk TB groups, including migrants from high-incidence countries, homeless people, and drug and alcohol abusers. The study analyzed TB case finding intervention based on verbal symptoms screening,[2] conducted at primary centers for undocumented migrants, refugees, and asylum seekers in different Italian sites.

[2]Presence of cough, fever, fatigue, hemoptysis and weight loss.

Although only a limited number of TB cases was detected, of those screened and evaluated, the study, based on its feasible cost approach and reduced burden of medical procedures, contributed to the diagnoses and control of TB, especially among subpopulations that have difficulties to access specialized healthcare centers [27].

2.3. TB screening of migrant children

Although many countries have developed and documented immigration TB screening programs to suit the needs of adults, attention to migrant children lacks intensive studies.

Screening migrant children for TB is particularly important, as they have a higher risk of developing active disease due to recent infection. Furthermore, due to its "paucibacillary" nature, which makes it rarely infectious, when they develop the disease, it is more severe, resulting in increased morbidity and mortality compared with adults. Thus, TB screening in high-risk children from high-incidence countries should form part of all immigration TB screening programs. A recent survey compared various screening tools (history, physical examination, TST, interferon-gamma release assays (IGRAs), CXR,[3] and MTB (*M. tuberculosis*) bacteriology) among migrant children [30]. The screening programs varied considerably between the various participating countries. History and physical examination was often normal in children with active TB disease, and TST emerged as a better predictor of TB infection or disease [30]. Sociocultural and behavioral factors have shown to be involved in the acceptance of LTBI treatment in these populations [31]. In pediatrics, although TB may not be of immediate public health concern, individual morbidity and mortality is high. The goal of TB screening is to identify children with LTBI who are at risk for progression to active TB, as early LTBI treatment prevents extended and disseminated disease.

3. Definition of LTBI and risk of progression toward TB

Although the word LTBI should be "reconsidered" considering that both "latent" and "infection" terms indicate lack of disease and thus are redundant [32], LTBI is defined as a state of persistent immune response to previously acquired TB antigens without evidence of clinically manifested active TB disease. It is an asymptomatic and nontransmissible condition that is maintained for the lifetime of the infected person. Current tools are insufficient to measure the global prevalence of LTBI, but investigations carried out a decade ago estimated that approximately one-third of the world population (>2 billion people) is latently infected with *M. tuberculosis*.

A relatively small proportion, 5–15% of screen-test-positive patients of the estimated >2 billion people with LTBI will develop TB disease (TB reactivation) within the first 5 years after initial infection, with the remaining risk distributed over the rest of the life span [33, 34]. The likelihood of progression from LTBI to active clinical TB disease is determined by bacterial,

[3] Mainly employed in children ages from 11 to 16 years.

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host, and environmental factors, potentially favoring TB evolution. A schematic diagram showing TB evolution following exposition is illustrated in **Figure 1**.

The risk factors for acquiring LTBI infection involve people at increased risk which include infants, children (<5 years), and adolescents who have intimate contact with high-risk adults, as well as persons who have had close contact with someone known or suspected to have active TB, health care workers, high-risk racial and ethnic minorities, prisoners, residents in nursing homes, hospitals, and homeless shelters [34]. LTBI also occurs in the migrant population coming from low-income countries with a high burden of disease, especially from the Indian subcontinent and sub-Saharan Africa (the highest burden in the world), as well as in asylum seekers and refugees, a subgroup of immigrants at particular risk for TB. Persons coming from tropical areas are also at an increased risk for developing TB. The probability of developing TB is much higher among people with cellular immunity impairment due to: human immunodeficiency virus (HIV) infection, tumor necrosis factor α inhibitors, glucocorticoids administration, and organ or hematologic transplantation. Diabetes mellitus and chronic kidney disease are also more common in migrant populations and significantly increase the risk of reactivation from LTBI to active TB [34, 35].

Among all the considered conditions, HIV infection is the most potent risk factor for progression from LTBI to active TB disease [36]. TB in fact is the leading cause of death among people living with HIV, estimated to account for around 33% of all HIV-related deaths globally [4] and individuals with both, LTBI and HIV infection, have a risk of reactivation of 10% per year of life compared with 10% for life for those who do not have an HIV infection [23]. Many HIV-positive people in developing countries develop TB as the first manifestation of AIDS [4]. The major risk factors for progression from latent infection to active disease are wide ranging and are listed in **Table 1**.

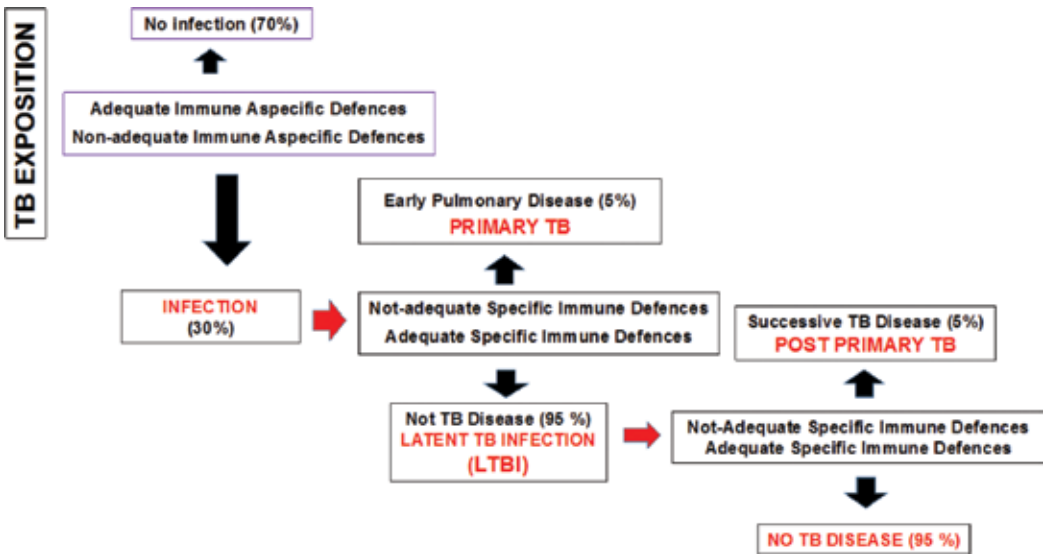

Figure 1. Evolution of TB from latent infection to active disease following exposition.

• Children younger than 5 years
• Persons with immunocompromising conditions (HIV, leukemia, lymphoma)
• Persons infected with *M. tuberculosis* within the past 2 years; persons who inject illicit drugs or use other locally identified high-risk substances (e.g., crack cocaine), tobacco, or alcohol abuse (risk of infection and active disease)
• Persons with a history of untreated or inadequately treated TB, including those with CXR findings consistent with previous tuberculosis (e.g., apical fibronodular changes on CXR)
• Homeless adults, elderly, health care workers, and medical students
• Persons with recent conversion of a negative tuberculin skin test to a positive test
• Persons with the following clinical conditions or other conditions compromising immunity: disorders requiring long-term use of corticosteroids or other immunosuppressant medications (including tumor necrosis factor-alpha antagonists), body weight 10% or more below the ideal, chronic renal failure, and end-stage renal disease requiring dialysis, diabetes mellitus*, gastrectomy or intestinal bypass, malignancy (cancer of the head, neck, or lung), silicosis
• Tropical parasitic diseases including helminthic infestations**
• Black race, black skin individuals***

*Diabetes can increase the relative TB risk (range 1.16–7.83) [37].
**These can negatively impact on TB disease inducing immunological weakening throughout Th1 impairment [38].
***Black skin individuals are constitutively more susceptible than white skin persons owing to environmental and genetic factors [39].

Table 1. Groups at increased risk of progression from LTBI to active tuberculosis.

4. Management of LTBI among immigrants and screening practices

Given that the majority of active TB in foreign-born persons in low-incidence countries arises from reactivation of LTBI, acquired many years previously in the country of origin, as also demonstrated by epidemiological studies based on *M. tuberculosis* strain isolates by molecular genotyping that found that 55-90% of TB cases in foreign-born persons are due to LTBI reactivation [40–41]. Screening new entrants for LTBI remains the cornerstone for controlling imported TB. While most developed countries screen for active TB, screening for LTBI is much less commonly performed [24, 42].

Guidelines for LTBI screening among immigrants are not homogenous and vary among regions; moreover, evidence supporting their effectiveness is lacking and identifying models of best practice remains difficult, so that there are no perfect methods for the diagnosis and management of LTBI [43–45] whose identification provides opportunity for early treatment and the prevention of significant health sequelae for the individual. Diagnosis of TB is currently based on a positive result of either a tuberculin skin test (TST) or IGRA test indicating an immune response to *M. tuberculosis*. The TST is widely used and inexpensive, but requires a repeat visit to the physician and has low performance in persons recently vaccinated with BCG (e.g., immigrants arriving in industrialized countries), or who are infected with HIV. With the TST, an induration of 15 mm or more is considered positive in persons without risk factors, 10 mm or more is positive for those at higher risk, such as immigrants from high TB-endemic countries with no history of TB, and 5 mm or more is positive for certain high-risk persons (e.g., immunocompromised patients, those exposed to

active TB). The more expensive IGRAs overcome some of the TST performance issues [46]. IGRAs require a single patient visit to conduct the test and results can be available within 24 hours. IGRAs, however, are not the preferred testing method for use in children younger than 5 years old, persons recently exposed to TB, immunocompromised persons, and those who will be tested repeatedly [47]. To test immigrant and refugee children with LTBI who are probably vaccinated with BCG, IGRAs may limit the number of children targeted for preventive therapy [48]. The use of one-step IGRA has also demonstrated to be the best option for young migrants [9]. Although in the last decade, IGRAs have increasingly replaced the use of TST, these tests have also limitations, both cannot verify the presence/absence of dormant bacteria still able to reactivate and thus they do not reliably predict who will progress to active TB [2, 3]. Moreover, strong positive tests do not suggest a higher TB risk reactivation, and in children under 5 years of age and immunocompromised patients, including HIV-infected subjects, the test performances are particularly poor, thus needing a better detection test for LTBI [49, 50]. The comparative performance of the TST and IGRAs also varies between high-incidence and low-incidence countries, possibly because of the effects of BCG vaccination and reinfection [51]. In this setting, WHO strongly recommend that either TST or IGRA be used to test for LTBI in special risk populations (i.e., HIV persons, transplant patients, patients initiating anti-TNF treatments, household members or close contacts, including children of pulmonary TB cases). A positive IGRA or TST test is required to diagnose LTBI and to start specific therapy according WHO guidelines [4]. In high TB burden countries a LTBI test is not required prior to LTBI treatment, but it is encouraged for HIV-positive persons.

4.1. Screening practices

Individuals should be asked about symptoms of TB before being tested for LTBI. In this setting, WHO guidelines [4] suggest an algorithm for targeted diagnosis and treatment of LTBI in individuals of risk groups (**Figure 2**).

A recent survey found that only 55.2%, 16 out of the previously mentioned 29 countries (see p. 6), screen for LTBI most frequently postarrival in their country using TST in 68.8% of cases, TST plus a confirmatory IGRA in 25%, and IGRA alone in 18.8%. In 11 of these countries, the screening is compulsory for documented migrants [5, 24, 25].

The screening may decrease the period of infectiousness by as much as 33% in some situations [5]. LTBI screening is effective in persons at risk of contracting *M. tuberculosis* or of progressing from LTBI to active TB. It is generally thought that routine screening outside these high-risk groups wastes resources and leads to high false-positive test rates. According to the WHO 2015 Guidelines on the Management of LTBI [4], systematic testing and treatment of LTBI is highly recommended in immigrants from high TB burden countries; prisoners, homeless persons, and illicit drug users should be treated according to TB epidemiology and resource availability. This procedure has shown to lead to early detection of cases, resulting in a shorter duration of symptoms, and fewer hospitalizations.

The decision to screen for TB is a decision to treat. LTBI can be effectively treated in order to prevent progression to active TB, thus resulting in a substantial benefit for both the individual and the community. Currently available treatment options allow to reduce the risk of

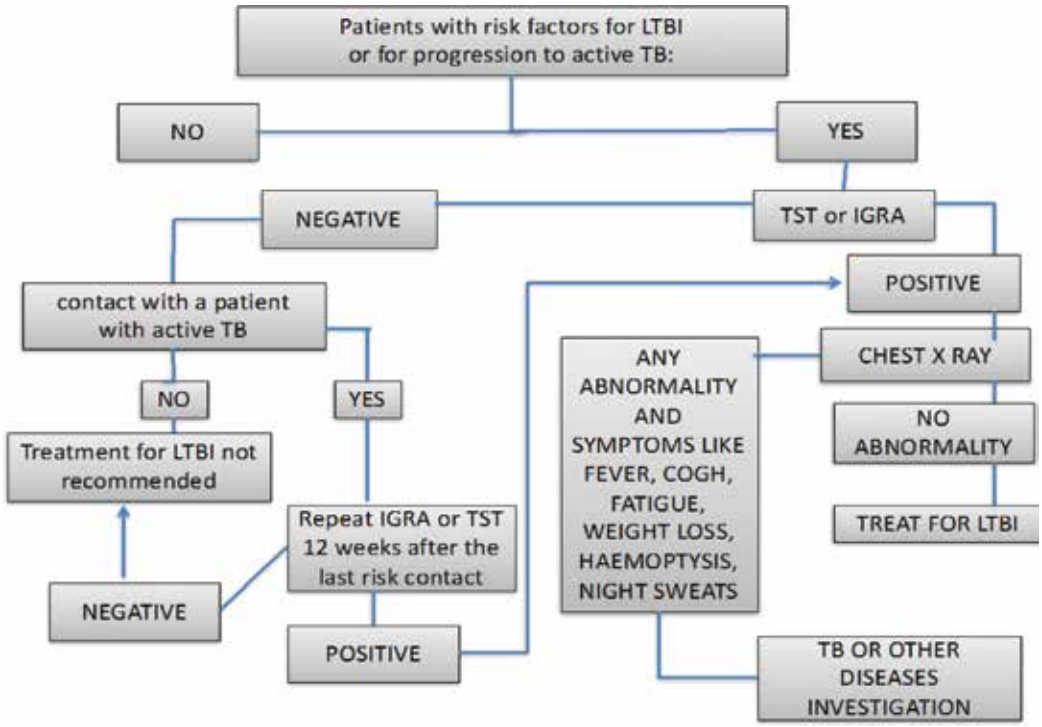

Figure 2. Algorithm for the management of LTBI in individuals at risk for TB. Modified and adapted from Guidelines on the Management of Latent Tuberculosis Infection. Available from: www.who.int/tb/areas-of-work/preventive-care/ltbi/en/

developing active TB by at least 60%. However, safety concerns exist, mainly related to the development of drug-related adverse events including hepatotoxicity. The following regimens recommended by the WHO TB Report 2015 [4] for the treatment of LTBI are: daily therapy with INH for 6–9 months; 12 weeks rifapentine plus INH weekly; 3–4 months INH plus rifampicin daily; rifampicin plus pyrazinamide for 2 months or 3–4 months RIF alone. While the safety of 2 months of RIF and PZA has shown to be acceptable in HIV-infected persons and children, in non-HIV-infected adults, this regimen has demonstrated a high rate of severe liver toxicity [52].

Identification of latently infected individuals and their treatment has lowered TB incidence in rich, advanced countries. Similar approaches also hold great promise for countries with low to intermediate rates of TB incidence. Wide variations are observed for the cost of screening of eligible candidates for LTBI treatment and the costs for treatment. For reasons of practicality and cost effectiveness, most high-income countries consider and check as eligible population refugees or asylum seekers or those individuals arriving from high TB burden settings. The available evidence suggests that screening for and treatment of LTBI may be a cost-effective intervention in population groups characterized by high prevalence of LTBI and/or high risk of progression to active TB, such as persons migrating from high TB incidence countries, contacts with active TB cases, and persons living with HIV.

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5. Essentials of diagnosis of infectious TB among immigrants in low TB burden countries

Owing difficulties in access to health system, TB diagnosis and treatment are lower in migrant populations compared to native subjects. This is in part due the fact that migrants, in general, have a longer patient diagnostic delay for TB (time elapsed from the onset of symptoms and the first medical visit) possibly due to a combination of reasons including language barriers, unemployment, or interruption due to lack of medical insurance that hinder migrants from using the available health TB services, while natives have a longer health care diagnostic delay (defined as the time elapsed between the first medical consultation and the initiation of treatment) [53]. Although the reliability of epidemiological assessments has progressively improved in recent years, no more than 30% of the estimated number of people suffering from TB, including migrants, is actually diagnosed with a method of proven efficacy [54]. Moreover, current diagnostic tests have poor performance on forms of TB which are intrinsically difficult to diagnose, such as childhood TB, smear-negative pulmonary TB and EPTB, TB in HIV/AIDS patients, and drug-resistant TB.

5.1. Conventional diagnostic methods

To date, the most common methods for diagnosing TB worldwide which constitute the backbone of TB diagnosis remain the "old" sputum smear microscopy test and bacteriological culture which is also the test necessary for monitoring patients' response to treatment [2, 3]. These methods, however, represent a major constraint even in high-tech, high-resources western countries, when the mycobacterial load is low or the district of infection is not easily accessible. TB diagnosis includes suspicion as first step. All patients with TB, including migrants, can present with almost any symptom including cough, shortness of breath, chest pain, hemoptysis, together with the presence of constitutional symptoms (weight loss, fever, fatigue, and night sweats) which meet the definition of a suspected TB case according to WHO [55]. These symptoms must be considered in differential diagnosis in patients with epidemiologic risk (exposure to infectious patients, travel to or residence in a high prevalence area, previous TB) [2, 54]. The clinical suspicion of TB is then investigated through radiographic imaging, microbiology, and histopathology. Radiology could also have an important role in the diagnosis of TB in low-resource countries, especially as pre-entry TB screening in country of origin for those migrants who intend to migrate and refugees. However, the equipment is expensive and it needs qualified and experienced staff to be able to interpret the radiological signs—they are not always available in these settings [23, 45, 56, 57]. Moreover, CXR cannot provide a conclusive diagnosis on its own and needs to be followed by sputum testing. Although inexpensive and potentially easy to perform, conventional smear microscopy has a number of limitations including the variable (from 20 to 80%) sensitivity which is low, particularly among all persons coinfected with TB and HIV, including migrants and children, due to the reduced pulmonary bacillary load in these subjects [58]; it cannot distinguish between MBT complex and non-TB mycobacteria and it does not provide information on the resistance profile of the bacilli. In this setting, phenotypic drug-susceptibility testing (DST) on cultured specimens is the conventional method used to detect resistance to first- and SLD-TB drugs in

MDR-TB and monitoring patients' response to treatment [4]. Finally, the challenge of TB diagnosis in the low-income countries including the tropics, must also take into account the differential diagnosis with a wide spectrum of microbial agents causing respiratory infections of which migrants can be affected and include viruses, bacteria (*Actynomicetes*), and parasites (*paracoccidioidomycosis*, *paragonimiasis*, *dirofilariosis*), which can mimic TB [2, 3, 9], and other diseases such as sarcoidosis and cancer. In these settings, basic radiography and other analyses are of considerable use but are not available in all centers [9].

5.2. Advanced diagnostic techniques

Current-generation MTB-specific nucleic acid amplification tests (NAATs) can be a valid surrogate to direct observation or isolation of tubercular bacilli and to replace culture [33] and detect new TB cases within few hours. Although NAATs are widely used in Europe [33, 59], their high cost and level of technical support hindered the widespread adoption in TB endemic countries. Improving diagnosis in high-income countries is a strategic goal in TB research, and the pipeline of diagnostic tools is rapidly growing: new ways of performing sputum smear microscopy and innovative technologies for molecular diagnosis have already been endorsed by WHO, or are under investigation [60]. To respond to the urgent need for simple and rapid diagnostic tools at the point of treatment in high-burden countries, a fully automated molecular test for *M. tuberculosis* detection and resistance to RIF testing was developed (Xpert®MTB/RIF) and has been endorsed by WHO in December 2010 [56]. Its capability to simultaneously detect mutations conferring resistance to RIF extends its usefulness beyond the diagnosis of TB (sensitivity 98.2 and 72.5% respectively for smear-positive and smear-negative samples; specificity 99.2%), also to first-line assessment of RIF resistance (99.1% sensitivity and 100% specificity) and prediction of multidrug resistance (99% sensitivity) [61]. Xpert®MTB/RIF system has the advantage to provide accurate results in less than 2 hours as it requires minimal biosafety supplies and training, so that patients can receive treatment from the same day on. According to WHO recommendations, Xpert®MTB/RIF, which is less sensitive than culture but more sensitive than microscopy [62], should be especially used as the initial diagnostic test in all individuals including migrants suspected of multidrug-resistant (MDR) TB or HIV-associated TB and in testing cerebrospinal fluid specimens from patients presumed to have TB meningitis; it may be used as a follow-on test to microscopy in settings where MDR and/or HIV is of lesser concern, especially in smear-negative specimens (conditional recommendation, recognizing major resource implications). With the introduction of Xpert®MTB/RIF, there has been an increase of the number of microbiologically confirmed TB in children [63], thus offering in low-income and middle-income countries, an opportunity for investigators to provide access to diagnosis for children beyond smear microscopy, and an increase of the number of pulmonary TB cases detected in HIV-positive patients when compared with microscopy [62]. Although with high specificity, Xpert®MTB/RIF has shown limited sensitivity for the detection of EPTB especially in HIV-positive individuals and among migrants in whom it can mimic cancer, bacterial and fungal infections [4, 64]. Other than Xpert®MTB/RIF test, new TB diagnostic tests may enhance diagnostic algorithms by offering rapid, point-of-care, or near-care detection of TB. One of these is the urine tests for lipoarabinomannan (LAM) and is detectable in the urine of all individuals with active TB [65]. Urine-based testing has

advantages over sputum-based testing because urine is easy to collect and store, and lacks the infection control risks associated with sputum collection. The test is easy to perform, rapid (less than 30 minutes), and may be used at the point at which care is provided for TB or HIV. The urinary LAM assays currently available are unsuitable as general diagnostic or screening tests for TB, due to suboptimal sensitivity. The test was found to be cost-effective in sub-Saharan Africa when used for HIV-positive patients with CD4 counts of less than 100 per mm^3 [66], but lacks accuracy if used in patients with CD4 counts over 200 or in children. WHO recommends that LAM assay should be used for the diagnosis of TB in all HIV-positive persons with low CD4 counts or in those who are seriously ill,[4] and to assist in the diagnosis of TB in HIV-positive adult inpatients with signs or symptoms of TB (pulmonary and/or EPTB) who have a CD4 cell count less than or equal to 100 cells/L [4]. Other new generation NAAT kits have been released for research use [67], but further data are needed before their potential to assist TB control can be judged. Independent studies are required in settings representative of the intended use of the device.

6. Management and treatment of drug-resistant TB

So far TB treatment in migrant populations represents a challenge as it contributes considerably to illness and death especially in western countries. There are not only the economic but also the social costs. A number of social determinants, such as limited language, sociopsychological barriers, lack of employment, fear of expulsion, and access to health care facilities, often lead to a protracted diagnosis. Thus, TB treatment of these patients can be limited or inadequate and this is fundamental for conferring TB drug resistance.

6.1. MDR and XDR-TB management issues

The current standard of care of drug-susceptible MTB requires 6–9 months of combination therapy which includes a 2-month "intensive" phase of a four-drug cocktail containing RIF, INH, PZA, and EMB; followed by a longer "continuation" phase of RIF and INH to eradicate the remaining bacilli that have entered a dormant, slowly replicating the latent phase. Currently, standardized regimens require that patients' daily ingest up to four drugs under direct observation of a healthcare worker for a period of 6–9 months. In this setting, directly observed treatment (DOT) of TB reduces TB-related death, disability, and transmission; it is a highly cost-effective intervention, even in the lowest income countries [54]. Treatment of TB represents a therapeutic challenge because of not only the natural level high resistance of *M. tuberculosis* to antibiotics, but also because of the occurrence of new mutations that confer additional resistance as well as multidrug strains. The drug-resistant TB represents a constant threat to some groups of patients, including migrants, who do not take the medication once they start to feel better. Indeed, an increasing number of MDR-TB strains are isolated because of the poor compliance to treatment that characterizes migrants themselves. Nowadays, the insufficient treatment regimens, nonadherence, and poor availability of drugs are a major

[4] Respiratory rate >30/min, temperature >39°C, heart rate >120/min, severe difficulty to walk unaided.

cause of treatment failure, relapse of disease, and TB drug-resistance especially in migrants. Eastern European countries are among those with the highest rates of MDR-TB and have also the most drug-resistant (XDR) strains in the world[5] [15]. By the end of September 2009, at least one case of XDR-TB had been reported by each of the 25 countries in the European continent. The majority of European and other low prevalence countries, excluding some of the high priority countries in the WHO European Region (such as Latvia, Lithuania, Bulgaria, and Estonia), also reported higher prevalence of MDR-TB cases in migrants when compared to the native population [68]. The number of cases of XDR-TB diagnosed globally is rising as expected because of improved laboratory testing and reporting. The diagnosis of XDR-TB is equivalent today to a death sentence. Factors contributing to higher mortality rates in patients with XDR-TB include: resistance to six or more drugs, delayed diagnoses, prescribing ineffective drug therapies due to the lack of DST, and deprivation of programmatic access to effective SLD. During 2015, 105 countries reported cases of XDR-TB to the WHO [4]. However, the highest numbers were registered in 2014 and included India, Ukraine, South Africa, Belarus, and Kazakhstan [4]. In the United States, 15 cases of XDR-TB were reported to the CDC between 2009 and 2014 [4]. In Italy, the proportion of TB cases notified in foreigners increased from 22% in 1999 to 46% in 2008, paralleling the proportion of MDR-TB cases which consistently grew to 83% [13, 69]. A recent retrospective study conducted over the period 2008–2010 aimed to investigate drug-resistance proportions and drug-resistance profiles of *M. tuberculosis* strains circulating among immigrants and natives. It showed that the five countries mainly contributing to the TB resistance in foreigner groups in Italy were Romania (28.7%), Morocco (9.9%), Peru (5.8%), Pakistan (5.8%), and India (5.6%). Moreover, the MDR-TB prevalence in immigrants was consistent with that of their native countries (e.g., in 2009: Romania, 11.2%; Ukraine, 19%; Moldova, 44.3%). Differences in culture may impact significantly on TB prevention, diagnosis, and treatment in immigrants which, unlike the general population, are also at greater risk of having an infection with MDR-TB [14]. In general, patients who do not respond to previous TB therapy have an up to a 50-fold higher risk of having MDR- and XDR-TB. Other prominent risk factors include close contact to a patient with MDR-TB, migration, HIV infection, and young age. Moreover, as infection control policies are problematic in many developing countries, nosocomial transmission of MDR- and XDR-TB is 3–6 times higher in patients hospitalized for more than 14 days [70]. In particular, the risk increases in open hospital wards where advanced HIV-infected with low CD4 cell counts can facilitate the nosocomial spread of infection. The management of patients with MDR-TB, XDR-TB, or total resistant TB requires an appropriate and rapid diagnosis. After identification of high-risk groups, microbiological confirmation and appropriate treatment should be started [71, 72]. Confirmation of resistant-TB and identification of potentially effective drugs in an optimized combination treatment regimen should be done on the basis of antimicrobial DST. However, only 22% of countries worldwide routinely perform cultures and DST, and only 48% of the 46 countries in the WHO Africa region have ever undertaken a drug-resistance survey [4, 73]. Moreover, DST is often too expensive, especially in high-burden countries, and in many settings it is neglected because

[5]That is, MDR strains resistant to any FC and to at least one of three injectable SLD: KM, CM, AK.

of the lack of SLD [73, 74]. In general, treatment for MDR-TB can extend up to 2 years after microbiologic culture conversion and relies on more toxic, less efficacious second- or third-line agents, many of which are even more scarce than frontline drugs in affected areas [75].

6.2. Therapeutic concerns of MDR and XDR-TB in different population groups including migrants

Patients with MDR-TB strains should receive therapy based on individual DST including residual first-line (SM), EMB, PZA drugs, and SLD such as oxacin, KM, CM, ET, PAS, and CS. As with other antimicrobial agents, the use of SLD can generate resistant mutants. DST often shows poor reproducibility and lack of correlation with clinical response. The initial intensive phase of therapy should last 6–8 months and includes at least 4 months after culture conversion. Compared with the treatment of drug-susceptible TB, the treatment of MDR- and XDR-TB requires more drugs that are less well tolerated for a more prolonged duration. The available TB drugs against MDR/XDR-TB are included among a hierarchy of five groups, with first-line TB drugs listed in Group 1 and second-line drugs in Groups 2 through 5 [76]. Group 1 is composed of first-line TB drugs RIF, INH, PZA, and EMB; Group 2 contains the injectable agents embracing the bactericidal aminoglycosides (SM, AK, and KM) and CM, whereas Group 3 consists of FC including gatifloxacin and moxifloxacin. The remaining SLD ethionamide/prothionamide, CS, and PAS are inside Group 4 and are considered less potent and often less well tolerated by patients. Group 5 contains new antimicrobial agents, those with less clinical experience, and drugs with less proven efficacy in the management of drug-resistant TB such as clofazimine, developed in the 1950s to treat leprosy. Bedaquiline, delamanid, linezolid, clofazimine, meropenem, amoxicillin-clavulanate, and clarithromycin are included in this category. Although adherence to therapeutic programs is often impossible for immigrants as they are often lost in follow-up, at least five drugs (including an injectable agent) should be given for an "intensive phase" of up to 8 months. The specific drugs chosen depend on a patient's previous TB drug therapies and individual DST results. Thereafter, a "continuation phase" of least four oral drugs should be continued until a total minimum duration of 20 months. Prolonged therapy presents a range of practical challenges including prolonged hospitalization with conspicuous health care cost, toxicity (i.e., nephro- and ototoxicity with aminoglycoside drugs), and high loss to follow-up during continuation therapy. Finally, drug-resistant TB can represent in Africa a particular risk to individuals with HIV with high transmission of infection and high mortality [77]. Treatment success rates of MDR/XDR-TB vary between 36 and 79% [78, 79]. Surgery can have a positive adjunctive role with combination of antimicrobial drug therapy in the management of drug-resistant TB, but does not allow for shortening the duration of therapy [80].

Three groups of people deserve special attention in MDR/XDR TB management: children, pregnant women, and HIV-positive patients.

There are not enough data regarding optimal duration of MDR/XDR-TB treatment in children which may vary from case to case. Depending on the extent of the disease, the TB DST pattern and the immune status of the child, a total duration of treatment between 12 and 18 months following culture conversion could be acceptable, with the recommendation to continue the

treatment only in particular cases to avoid relapse [30]. However, the clinical trials in children so far carried out are not enough to supporting this approach.

Regarding pregnancy, there is consensus that neither LTBI following contact of a patient with MDR/XDR-TB nor active MDR/XDR-TB requires cessation of pregnancy [81]. While safety of many drugs for the unborn child is unknown, treatment of pregnant females who develop MDR/XDR-TB or become pregnant during treatment can be successful without adverse events for the newborn, although aminoglycosides/polypeptides are not recommended for MDR/XDR-TB treatment during pregnancy [82]. Theoretically, breastfeeding should be recommended only in females who are not infectious. However, the known and theoretical benefits of continuing treatment seem to outweigh theoretical risks to the mother and fetus.

Being TB and HIV strictly related, HIV exacerbates TB and the phenomenon of MDR/XDR-TB is somehow increasing in these patients in whom HIV testing is not always evaluated especially in particular countries, thereby delaying the initiation of antiretroviral therapy (ART) which could significantly reduce mortality, relapse rates, and development of resistant strains [83]. This is especially true for immigrants in whom not only it is difficult the access HIV testing, but also ART testing. A large body of research has in fact shown that migrants are more likely to enter into the healthcare system late and are less likely to be retained at successive stages of the HIV treatment cascade.

MDR/XDR-TB has higher mortality rates especially in South Africa [83, 84] among MDR/XDR-TB and HIV coinfected cases with very low CD4 cell counts and limited access to ART. Timely diagnosis based on molecular assays is crucial to reduce the mortality associated with MDR/XDR-TB patients among HIV-infected persons. Owing to high case detection rates compared to smear microscopy, WHO recommends Xpert®MTB/RIF as a primary diagnostic test for TB in persons living with AIDS [4].

In conclusion, treatment for MDR/XDR-TB is far from optimal at present. In particular, treatment of MDR/XDR-TB in migrants living in high-income countries is associated with increased risk of therapy nonadherence, loss to follow-up, and in general, noncontinuity of anti-TB care that worsens drug-resistant TB. Migrants' slow progression through the TB or HIV treatment cascade can be attributed to feelings of confusion, inability to effectively communicate in the native language, and poor knowledge about administrative or logistical requirements of the healthcare system.

Novel therapeutic interventions with shorter treatment regimens with higher efficacy and better tolerability than those currently available are required. In addition, new drugs need to be developed and existing drugs for anti-TB properties should be reevaluated for their potential efficacy in the treatment of MDR/XDR-TB. In receiving high-income countries, the international community has responded with financial and scientific support, leading to new drugs [85] and regimens in advanced clinical development and an increasingly sophisticated understanding of resistance mechanisms and their application to all aspects of TB control and treatment. In the absence of a preventive vaccine, more effective diagnostic tools, and novel drugs, the control of MDR/XDR-TB will be extremely difficult. Moreover, the increasing rates

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of drug-resistant TB in Eastern EU, Asia, and sub-Saharan Africa is now threatening the gains made by TB control programs worldwide.

7. Conclusions and social issues

Although the WHO Report 2015 [4] with its "STOP TB" strategy has the goal to eliminate TB as a public health problem (defined as <1 case per 1 million population per year) by 2050, TB shows no signs of disappearing in the near future despite declining incidence in most high-income countries. TB is still one of the top three infectious killing diseases in the world, after HIV/AIDS that kills 3 million people each year, TB kills 2 million, and malaria kills 1 million [4]. In order to intensify the fights against this deadly disease, further efforts aimed to strength surveillance programs to accurately estimate the burden of all kinds of TB are of great significance. Considering the enormous number of migrants around the world [8] with its high rates in the USA and Europe (54 and 76 million, respectively), particularly in Germany, Russia, the UK, France, Spain, and Italy, other than Saudi Arabia, Canada, and Australia, the problem of TB is of foremost importance and deserves great attention in order to act promptly to find solutions.

Although migration in itself is not a definitive risk for TB, several factors can put migrants in vulnerable situations that push factors (desertification, famine/drought, political fear/persecution, poor medical care, loss of wealth, and natural disasters), and pull factors (search of job opportunities, better living conditions, better medical care, political and/or religious freedom and security) migrant people in and out of TB-endemic areas [86]. Social fragility of migrant populations, despite its heterogeneity, shows areas of health suffering in large part due to highly uncertain circumstances and integration policies in receiving countries, especially at the local level, difficulties in access to services, and to relational communicative problems. In fact, the slow or less rapid deterioration of the migrant health in the host country creates serious problems, both to the person who is sick, and to the community which is forced to support the social and economic costs that this entails. Therefore, understanding the changing socioenvironmental situation as well as population movements and their associated risks for TB infection is critical for control, containment, and elimination of this disease which still poses infection-control and public-health challenges in the twenty-first century. Providing services aimed to identify and treat TB in migrants, refugees, or asylum seekers who are at high TB risk is challenging and requires a multidisciplinary approach and a high rate of investment of resources, human, structural, and material [87]. In immigrants living in high-income countries there are crucial factors that play an important role in TB-drug adherence which include length of treatment course, complex regimens, medication side effects, poor access to health care services, poor communication with health care providers, lack of social support, negative perceptions, stigma, and discrimination. The lack of laboratory facilities in their country of origin made the laboratory diagnosis of infectious diseases, including TB, difficult in many parts of the African continent as well as in the majority of other poor and low resource countries, where the diagnosis continues to rely on century-old sputum microscopy. In recent years, a growing number of rapid and more sensitive tests for TB and drug-resistant TB, based on molecular methods, including Xpert®MTB/RIF, have become available to replace or parallel exist to conventional tests; however, current TB

diagnostics are still suboptimal in their performance for childhood TB, smear-negative TB, EPTB, HIV-TB, and drug-resistant TB. Furthermore, there is no standard test for the identification of LTBI, which, if correctly identified in particular risk groups including migrants, could be appropriately treated in order to prevent the onset of TB. So far, neither test can reliably predict future disease among persons with positive tests, and strong positive tests do not suggest a higher risk.

Looking at the movement of people today, at world politics, and at the increasing gap between the rich and the poor, it is expected that the number of immigrants will increase and with it health risks of those on the move and, to a lesser extent, the risk of those in the receiving countries can also be anticipated. It is argued here that a substantial increase in funding for TB research is required. There is no vaccine with adequate effectiveness, and TB treatment regimens are protracted and have a risk of toxic effects. Moreover, fundamental understanding of the pathogenesis of this disease is inadequate. In order to achieve the ambitious targets of the End-TB strategy 2035 (95% reduction in TB deaths, compared with 2015), 90% reduction in TB incidence rate (less than 100 TB cases per million population, no affected families facing catastrophic costs due to TB), greater efforts are needed also regarding migrants interventions, such as support services to receive and treat migrants, improving their access to health facilities, preventing the development of drug resistance through high quality treatment of drug-susceptible TB, improving adherence to anti-TB treatment, and offering vaccination for TB especially to prevent TB meningitis in children in endemic areas. Control strategies need to be adapted to local realities after evaluation of data prevalence/incidence, feasibility, and cost effectiveness. TB transmission among immigrants and natives is still rare, although it could increase in case of limited TB control. Thus, interventions such as expansion of the free service package and education about TB diagnosis among community health personnel are urgently required for early LTBI or case detection among migrants, particularly those born in a country with a high incidence of disease or in those persons exposed to the contact with TB, like close relatives of infectious patients [87]. It is recommended that high-income countries and their institutions cooperate in the near future with high-burden countries [4]. One important goal inside the "Global Action Framework for Research towards TB Elimination," developed by WHO [4] for the period 2016–2025 will be in fact to translate the new technologies and innovative approaches into policies and practices and then adapt to particular country contexts as appropriate. This is only another rational approach that in future will help to reach some of the ambitious targets to control, perhaps stop TB, in the coming decades.

Abbreviations

RIF	Rifampicin
INH	Isoniazid
PZA	Pyrazinamide
EMB	Ethambutol
KM	Kanamycin
CM	Capreomycin

AK	Amikacin
CS	Cycloserine
PAS	P-aminosalicylic acid
FC	Fluoroquinolones
MDR-TB	Multi drug-resistant tuberculosis
XDR-TB	Extensive drug resistant-TB
SLD	Second-line drugs

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Section 4

Settlement of Immigrants – Some Cultural Aspects

Chapter 8

Sociocultural Models of Second-Language Learning of Young Immigrants in Canada

Fanli Jia, Alexandra Gottardo and Aline Ferreira

Additional information is available at the end of the chapter

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"People in America don't realized how funny I can be. When I was in China, I was known as quick-witted. I was always the first to make a funny joke about an ironic situation. Now, when these situations arise, I am trying to translate from Chinese to English what might be funny, but by the time, I do this, someone else has already made the witty joke. People around me here don't think I have a sense of humor. I feel I have lost a part of me when I moved here."

-25-year-old Chinese immigrant

Abstract

The most significant challenge for the minority immigrant is learning a new language. They arrive in a new culture and community hoping to master English quickly in order to achieve their academic and career goals. However, many immigrants have mentioned general barriers resulting from being unable to communicate with peers outside their cultural and linguistic group. Recent research has identified several cognitive variables such as vocabulary, reading aloud, and grammatical judgment related to second-language learning in immigrants; however, little attention was given to sociocultural factors such as acculturation, motivation, and cultural learning because learning a language is a necessary aspect of being socialized into a particular culture. This chapter reviews research of sociocultural models in relation to second-language learning of immigrant youth in Canada. We address this paradigm for research by incorporating both acculturation and sociolinguistic approaches, as well as more traditional cognitive-linguistic approaches, to models of second-language learning in immigrants.

Keywords: Canada, language learning, acculturation, sociolinguistics, immigrants

1. Introduction

Many individuals who migrate have little or no exposure to the majority language(s) of the country to which they immigrate. This is especially true of people from developing countries, who migrate to developed countries, such as Canada and United States. In addition, many individuals, who learn English in their country of origin before they emigrate, learn the language from non-native speakers. Therefore, how can a person succeed when that person cannot communicate effectively with other people on a daily basis? Most research has focused on the fact that language proficiencies in the mainstream language play a key role in most accounts of acculturation [1, 2, 6, 9, 10]. However, there has been surprisingly little research conducted that examines how cultural orientation and participation have an impact on language learning in the mainstream society. For example, learning the mainstream language varies among individuals with different levels of acculturation [3, 4]. Key questions include the following: do sociocultural factors such as acculturation, cultural learning in, and cultural orientation to the values of the mainstream culture of the host country have an impact on immigrants' second-language proficiency beyond cognitive-linguistic variables traditionally used in the literature?

In an attempt to investigate this question, this chapter reviews theories of and research about sociocultural factors in relation to immigrants' second-language (L2) learning. There are many similarities between learning a language and learning a culture. A very appropriate proxy for how familiar a person is with a culture is his or her skill with the language (e.g., how he or she communicates verbally and in writing). Hence, one possible explanation for the relationship between language learning and acculturation is that it is easier for the immigrant to adapt the mainstream culture once they have a good grasp of the society's majority language. Understanding the patterns of language learning and cultural engagement in immigrants will lead to the development of improved programs to assist recent immigrants in becoming more successful learners.

2. Definition of acculturation

Acculturation (as indicated in other chapters) refers to the change in the pattern of affiliation to one or both cultures that results from intergroup contact [5] including psychological and sociocultural adjustments [6]. Psychological adjustments refer to the person's general satisfaction with the society of settlement and are influenced by changes in cultural values, attitudes, and behaviors. Sociocultural adaption includes the ability to successfully interact with and fit into the mainstream culture.

John Berry laid the foundations for research on acculturation within psychology [6]. He has proposed that two issues are critical to the outcome of one's acculturation. The first issue involves how well people attempt to participate in the larger society of their new culture. Do people have positive attitudes toward the mainstream culture, and are they actively seeking to fit in? The second issue involves how well people are striving to maintain their own heritage culture and identity as members of that culture. Do people have positive attitudes toward their heritage culture and are they actively seeking ways to preserve the traditions of the heritage culture?

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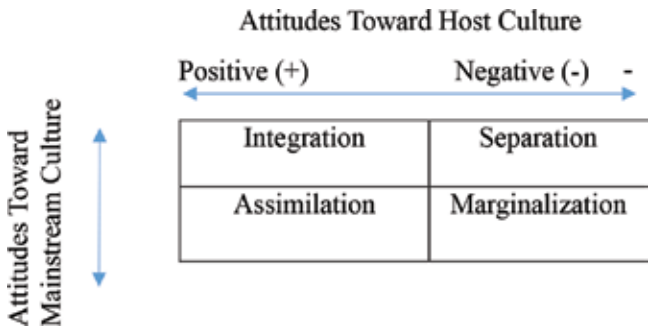

Figure 1. Four different types of acculturation.

Figure 1 illustrates different acculturation styles. The style that involves attempts to fit in and fully participate in the mainstream culture while at the same time striving to maintain the heritage culture is known as *integration*. People attempt to fully participate in the mainstream culture while making little or no effort to maintain the heritage culture is known as the *assimilation*. *Separation* involves efforts to maintain the heritage culture while establishing little contact with the host culture. Lastly, *marginalization* involves no effort to participate in the host culture or maintain the heritage culture.

3. Major models of acculturation and second-language learning in immigrant

In Schumann's model, the main contributor to second-language learning is social distance from the mainstream culture [7]. He argued that the assimilation strategy is one of the most important social factors affecting L2 learning. If immigrants fully assimilate and adopt the mainstream lifestyles and values, social distances between the immigrant and mainstream culture are likely to be reduced. This strategy decreases social and psychological distances between the two groups and improves acquisition of the target L2 proficiency. Attitudes toward the mainstream culture are other important factors in acculturation that are related to L2 learning. If immigrant groups have positive attitudes toward the mainstream cultural groups, L2 learning is more likely to be enhanced than if the groups view each other negatively. Schumann also argued that the length of residence in a specific culture needs to be considered in relation to L2 learning. If the immigrants have been in the country for a long period of time, they are likely to develop more extensive contacts with mainstream groups [7].

Gardner's socio-educational model [4] postulates that achievement in L2 is related to a variety of social psychological outcomes such as "integrativeness," which refers to individuals' attitudes toward the mainstream cultural community, an acceptance of other culture, and an interest in participating in social interactions with members of the mainstream community. Immigrants who are eager to make contact with members of the mainstream community would be more interested in learning the language than individuals who do not. A few

studies have indicated that "integrativeness" is positively related to L2 motivation and proficiency [4, 8]. For example, Masgoret and Gardner studied 248 Spanish-speaking newcomers to Canada [8]. Their results showed that the newcomers who adopted an assimilation mode of acculturation (a combination of high levels of English contact and low levels of Spanish contact) had higher levels of L2 English proficiency than the newcomers who demonstrated other acculturation strategies.

Clément and Bourhis [9] expanded the socio-educational model to include the construct of language confidence, which refers to confidence in being able to communicate in a well-organized and well-articulated way when using the L2. Studies have demonstrated that individual confidence in communicating in L2, along with subsequent language achievement, is a function of the frequency and quality of contact one has with the host culture [10]. However, it should be noted that the frequency and quality of contact require not only the willingness of the newcomer to communicate with members of the mainstream community but also the willingness of the mainstream community to interact with newcomers [11].

Cultural learning theory also offered an insight into the importance of acculturation and language learning through the concept of intercultural contact [12]. Ward and Searle [13] indicated that positive interactions with members of the mainstream cultural group are an essential factor for sociocultural adaptation, which enhances L2 proficiency. Despite this finding, studies conducted in Canada and USA have consistently shown that although newcomers expect and desire contact with members of the mainstream culture, the level of contact tends to be relatively low, and intercultural friendships are infrequent [2]. Lybeck [14] examined the social contact networks of English-Norwegian speakers. She found that building network connections with native Norwegian L2 speakers was positively related to more native-like pronunciation of Norwegian in L2 learners when compared with L2 learners who had greater difficulty establishing these connections. However, Harwood [15] argued that different types of social interaction had not been examined extensively. He proposed two dimensions with which to examine interactions: (1) being extensively involved in the interaction versus observing the social interaction and (2) interacting via social media versus face-to-face interactions.

In addition to intercultural contact, cultural learning researchers have examined mass media exposure and usage [16]. Immigrants make use of various types of mass media, such as TV, radio, newspapers, and magazines, which not only provide L2 exposure and practical day-to-day information but also provide knowledge about cultural norms and values for interpreting the cultural environment [16].

4. Other important factors that need to be considered in the research

4.1. Distance from mother tongue to English

The ease with which people learn English is influenced by how distant their mother tongue is from English. One source for assessing how easily people learn the language of the mainstream culture is the average score for each country of origin on the International English Language Testing System (IELTS). People who wish to immigrate to Canada typically need to

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Mother tongue	Average IELS score (General Training Test for Immigration)
Germany	7.0
Australia	6.8
France	6.7
Brazil	6.6
Nigeria	6.5
Egypt	6.3
Philippines	6.2
Turkey	6.1
China	6.0
Japan	5.6
Korean	5.5
United Arab Emirates	4.7

Table 1. Average scores on the International English Language Testing System (IELTS).

pass the general training test on IELTS. Although average country scores on the language tests are influenced by many factors, these scores also vary considerably based on the participants' own mother language (**Table 1**). Individuals who grew up speaking languages that are similar to English or have the same roots (e.g., Spanish, French, or German) perform better than those who grew up speaking other European languages. Moreover, speakers of Indo-European languages tend to perform better on the IELTS than those who grew up speaking languages, which have linguistic roots that are distant from English such as Japanese and Korean [17]. Written languages can also vary markedly in terms of writing systems and scripts that determine ways in which sound-symbol relations are represented, with alphabetic scripts differing from morpho-syllabic scripts [18, 19]. For example, Chinese orthography codes language at the syllabic and morphemic level [19]; however, English is written using an alphabetic system. Other differences in written language include types of scripts, and the direction in which the langue is written.

4.2. Previous experience with other cultures

General knowledge about the mainstream culture and previous experience abroad [13] plays a role in relation to social adjustment and L2 learning. For example, Bernaus et al. [20] found that background experiences with the language and culture of the host countries were significantly related to the degree of acculturation of British teachers in Spain. It is suggested that generic skills learned in oversees settings might be applied to new cultural contexts. In line with this finding, research has found that immigrants' adjustments tend to increase with the length of residence [20]. Sociocultural adaptation was found to increase markedly between 1 and 6 months of residence in the specific country. However, language learners require 6–8 years to acquire high levels of L2 literacy [21].

4.3. Age of L2 acquisition

Related to the age of L2 acquisition is the argument for the critical period hypothesis of L2 learning, with later L2 learners being less malleable to input than early L2 learners [22]. Traditionally, it was believed that early language learners who acquire their L2 in early childhood (ages 5–6) become more fluent than late learners who acquire their L2 later in childhood (ages 10–12), in adolescence or in adulthood, after the developmental window of the language acquisition. The concept of this "critical period" was based on the idea of loss of neocortical plasticity with maturation of the brain by 10–12 years of age, after which implicit language acquisition can no longer occur [22]. In addition, Krashen [22] argued that the process of first-language acquisition is complete by the age of 5 years and that a second language learnt after that time is not adversely affected. However, researchers examining bilingualism argue that the optimal age for learning L2 really hinges on the acquisition of different linguistic structures such as grammar, vocabulary, and pronunciation, which are differentially related to the age of the learner [23]. For example, Bialystok and colleagues illustrated that phonological acquisition is more sensitive to age than grammar and vocabulary. They found that new sounds are easier to pronounce with native-like accuracy than sounds that are similar but not identical to those found in one's first language [22]. Thus, people who learn their L2 after puberty often maintain a permanent accent related to their mother tongue, despite gaining proficiency in other aspects of language.

4.4. Age of exposure to the mainstream culture and mainstream acculturation

Because learning a language and being socialized in a culture are closely intertwined, age of cultural acquisition should also be expected. Heinz and colleagues [24] argued that immigrants who moved into a new culture after the sensitive window of language acquisition (i.e., after puberty) would have a difficult time to adjusting to their new culture [24]. They studied different generations of Hong Kong immigrants in Vancouver, Canada. Questions about their identification with Hong Kong and questions about how much they identified with Canada were asked. The results indicated that immigrants who arrived in Canada before the age of 15 identified more strongly with the Canadian culture and that this was related to how long they lived in Canada. However, those immigrants who arrived in Canada after early adulthood did not identify more closely with the Canadian culture over time. It is possible that because a critical window for cultural acquisition was largely closed for this latter group, repeated exposure to a culture that they had difficulty relating to became increasingly frustrating over time [24].

5. Three methodological challenges

The first methodological challenge is to strive for a cohesive definition of acculturation. Some researchers have argued that the acculturation is a linear, unidimensional process, in which individuals inevitably lose their own heritage culture and language as they adopt the culture and language of the mainstream society [7]. However, recent research has indicated that the acculturation process is a bidimensional or even multidimensional process [6, 16, 25]. For example, acculturation is described as "the process of adapting to the norms of the domi-

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nant group," and enculturation is described as "the process of retaining the norms of the heritage group" [26]. Acculturation and enculturation occur at different rates across various life domains such as language acquisition, social interaction, and the learning of values and norms. Involvement in mainstream culture does not necessitate a decrease in involvement with the heritage culture. Researchers found that successful L2 learners created a mixed identity that embraced both their heritage culture and mainstream culture suggesting that the successful adaptation might be tied to the adoption of both cultures [3].

A common outcome of this unidimensional definition of acculturation is the phenomenon of heritage language loss. The immigrants who are newcomers to a country are trying to learn the L2. In this process, some immigrants avoid speaking their native tongue and subsequently the next generation, their children, become monolingual speakers of the majority language [26]. Even though some immigration countries such as Canada and the United States are multicultural/multilingual societies [1, 3], the use of English is reinforced through government, education, social media, and business. Especially, the United States has a history of suppressing the active use of non-English languages for the purpose of promoting the assimilation of the immigrants [26].

The second challenge to conducting research on acculturation and language learning is that most studies used self-report methodology to measure language proficiency. Even though self-report is one of the most broadly used approaches to measure language proficiency, using self-report has been criticized by recent researchers [1, 3, 28, 29]. For example, language learners might underestimate or overestimate their language ability in self-report [1]. Simple self-rating scales are not sensitive enough to place language learners on a scale of greater or lesser language fluency [1, 3, 28]. Language proficiencies for both academic language and conversation are complex constructs that require better measurement strategies [1]. Only a few studies have used standardized tests rather than self-report data to measure language proficiency [3, 27, 28, 29].

The third challenge is in determining the directionality of the link between acculturation and language learning [3]. In the literature on immigration, language proficiency has been identified as an important indicator of sociocultural and psychological adjustment [1, 3, 16, 7, 16, 25]. In sociolinguistic literature, acculturation has been recently incorporated into models of reading literacy [29]. However, the two bodies of research have rarely overlapped with each other. It is reasonable to assume bidirectional processes between acculturation and language learning. During immigrants' settlement process, more confidence in speaking the L2, the language of the mainstream society, gives rise to more positive interactions which in turn lead to a reinforcement of the immigrants to acculturate in the mainstream cultural group [1, 29]. This reinforcement keeps motivating and facilitating the immigrants' L2 learning.

6. Our projects

Our research has been instrumental in demonstrating a link between language proficiency and acculturation among immigrants in Canada. Our research program builds on past research and extends it in several ways. In 2014, we recruited a group of 94 Chinese-born immigrant

adolescents (60 females and 34 males) who were learning English as a second language in Canada. This group differs from adult immigrants who have passed the critical period of language and cultural acquisition as we discussed above. These immigrant adolescents were enrolled in grades 7–12 (average age was 16) and lived in medium-sized to large urban areas in southern Ontario. In addition to the large range of ages, a wide range of lengths of residence in Canada were included (6 months to 17 years) to capture variability in the acculturation and language-learning processes. We divided our sample into recent immigrants/L2 learners with a length of residency in Canada of less than 6 years and long-term immigrants/L2 learners, with a length of residency in Canada of more than 7 years. All participants completed a number of self-assessment measures of acculturation and individually administrated standardized language tests of Chinese (Mandarin) and English. For the standardized tests, we asked participants to read a list of words and pseudowords of increasing length and difficulty to assess their reading accuracy. Participants were also asked to read short passages and answer multiple-choice questions. For vocabulary knowledge, participants were asked to choose a picture in an array of four that best described the orally present word. For morphological awareness, we presented with a target word and then presented an incomplete sentence in both oral and written forms. Participants were asked to complete the sentence with the correct derivation of the target word.

First, comparisons were made between the two Chinese immigrant groups who completed the standardized language proficiency tests. In both groups, participants were born outside of Canada, but could speak, read, and write both Mandarin and English. Mainstream acculturation and heritage enculturation on the Vancouver Inventory of Acculturation [30] were highly correlated after controlling various individual variables such as age, gender, and length of residence in Canada. Participants' English proficiency was highly correlated with the length of residency in Canada in years. Despite their similarities, these two bicultural groups provided systematically divergent responses. For the recent immigrant adolescents, there was significant correlation between mainstream acculturation and their vocabulary knowledge, reading accuracy, and reading comprehension. For the long-term immigrant adolescents, the correlation between mainstream acculturation and English proficiency was not significant (see **Table 2**). The results suggested that the link between acculturation and L2 learning might have a time limit depending on the student's length of residency and immigration status.

We also tested the link using similar measures in Spanish immigrant children living in Canada $N = 51$, average age was 11 years old [31]. They had lived in a large metropolitan area

	Recent immigrants ≤6 years	**Long-term immigrants ≥7 years**
Reading comprehension	0.49**	0.19
Word reading	0.38*	0.21
Vocabulary	0.36*	0.03

*$p < 0.05$.
**$p < 0.01$.

Table 2. Correlations between acculturation and English proficiency.

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in Canada for an average of 6 years, but showed high variability in terms of their time living in Canada (standard deviation *SD* = 3.3 years). Half of the participants were classified as Spanish dominant (Spanish was predominantly used at home and they had higher scores in Spanish than in English), while the other half of the participants were classified as English dominant (English was predominantly used at home and they had higher scores in English than in Spanish). Although mainstream acculturation was related to English-reading comprehension, acculturation was no longer significantly related to the English-reading comprehension when vocabulary and reading accuracy were statistically controlled. This finding that acculturation is not uniquely related to reading comprehension suggests that younger children might not necessarily need to be acculturated in order to learn their L2 because they still have the ability to acquire their L2 relatively easily. Cognitive variables such as building vocabulary and reading words accurately and quickly were more important in determining L2-reading comprehension. Thus, mainstream acculturation may play a less important role in the L2 acquisition of elementary school-aged children than cognitive variables. The finding that acculturation had such a minor impact on L2 learning among long-term Chinese immigrant adolescents and young Spanish children supports the hypothesis of sensitive period for both language and cultural acquisition.

One major limitation of studies examining the relationship between sociocultural and cognitive-linguistic literatures is the correlational nature of the data that prevented us from establishing causal relations between acculturation and language learning. We proposed a longitudinal study to investigate this link. Two developmental paths should be observed: (1) a higher level of early-onset acculturation would lead to immigrants' growth in English proficiency and (2) developing higher levels of acculturation through cultural engagement would provide another pathway for growth in English proficiency. Growth and changes across time in English proficiency and acculturation will be followed up over 2 years. Standardized tests of language proficiency will be administered at each wave of data collection.

Moreover, qualitative methods (life-narrative interviews) to assess acculturation will be implemented into the research in addition to questionnaires. McAdams states that the stories that people tell about their lives reflect a synthesis of how they make sense of life events and the sociocultural environments in which the stories are embedded [32]. As a result, narrative methods could provide insight into nuances and multiple facets of complex multicultural adaptation. In our proposed study, immigrants will be asked several questions about their engagement with the mainstream culture, and will be asked to tell a cultural immersion story. For example, "please describe an episode through which you underwent substantial change in your approach to adapt into Canadian culture."

7. Conclusion

When immigrants arrive in a new country, they face many challenges including language barriers. Specifically, a lack of English language skills may lead to low levels of confidence in interacting with members of their new culture, which will influence cultural immersion. In this chapter, we reviewed sociocultural factors in relation to immigrants' second-language learning with a

focus on immigrants to Canada. We addressed this research paradigm by incorporating both the sociolinguistic approach such as acculturation, distance between the mother tongue and English, previous experience in host countries, age of L2, and acquisition of the mainstream culture as well as including key variables related to the cognitive-linguistic approach when examining models of second-language learning in young immigrants. However, we propose that the social context of the language learner affects the level of proficiency attained. In contexts where it is necessary to speak as native, the speaker will continue to progress in their L2 skills rather than fossilizing at the level of adequate communication, albeit with a non-native accent.

We are currently addressing this paradigm of research by incorporating both acculturation and sociolinguistic approaches in models of second-language learning in young immigrants. With regard to assessing language learning and proficiency, we suggest the use of standardized language tests rather than self-report data. This procedure will allow us to disentangle the impact of psychological and social factors of acculturation on language-learning processes, and vice versa, and to determine whether the causal relationship can be advanced. This reciprocal link can be tested for its general applicability across different cultural backgrounds and levels of immigration status. We have suggested that relations within the construct of acculturation and between acculturation and second-language acquisition are complex and merit further examination. Future studies should involve longitudinal measures of acculturation variables such as life stories, attitude, and engagement, and motivation toward learning the mainstream culture, along with demographic variables such as age of arrival, length of residency, cultural differences between the country of origin and the country of immigration, and linguistic differences between the first and second languages. Even though additional research must be conducted before we can make this causal association, we hope that we raised issues that must be resolved when examining relations between acculturation and second-language acquisition.

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Chapter 9

Acculturation, Adaptation and Loneliness among Brazilian Migrants Living in Portugal

Joana Neto, Eliany Nazaré Oliveira and Félix Neto

Additional information is available at the end of the chapter

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The whole conviction of my life now rests upon the belief that loneliness far from being a rare and curious phenomenon, peculiar to myself and to a few other solitary men, is the central and inevitable fact of human existence.

Thomas Wolfe

Abstract

Acculturation refers to the changes that individuals undergo following intercultural contact. Adaptation is the long-term outcome of the process of acculturation, and loneliness represents one indicator of negative psychological adaptation. This study, using acculturation strategies, looks to answer to four questions: (1) what is the relationship between intercultural strategies and loneliness? (2) What influence does cultural identity have on the loneliness of migrants? (3) What influence does perceived discrimination have on the loneliness of migrants? and (4) what influences do self-worth and perceptions of others have on the loneliness? Answering these questions is important for reducing migrants' loneliness. This study, carried out in 2012, is constituted by 258 Brazilian migrants in Portugal (53% females and 47% males) with a mean age of 36 years. The mean length of residence in Portugal was 14 years. In order to measure loneliness, we used the ULS-6 scale. Other scales were used to measure intercultural strategies, cultural identity, perceived discrimination, self-esteem and attitudes towards ethnocultural groups. As predicted, in what concerns intercultural strategies, loneliness was negatively associated with the strategy of integration, and positively associated with assimilation, separation and marginalization. Ethnic identity was negatively associated with loneliness, but, contrary to expectations, national identity was positively associated with loneliness. Perceived discrimination predicted positively loneliness. Finally, as expected, self-esteem and perceptions of the in-group predicted negatively loneliness. Implications of the study are discussed.

Keywords: acculturation, adaptation, Brazilian migrants, loneliness, Portugal

1. Introduction

Social scientists have conceptualized the phenomena arising from intercultural contacts under the field of acculturation [1]. Acculturation represents one of the main topics of research in cross-cultural psychology [2]. Adaptation is the long-term outcome of the process of acculturation, and it is highly variable, ranging from well- to poorly-adapted. Adaptation can assume two forms: psychological adaptation and sociocultural adaptation [2]. The former is sometimes referred as 'feeling well'; the latter refers to 'doing well' in activities of daily intercultural living. Loneliness can be considered as an indicator of negative psychological adaptation [3].

Aristotle's remark about the significance of positive interpersonal relations holds in the era of globalization as well as in the ancient Greece. Loneliness is experienced in every culture, as displayed by researchers with various cultural samples including Canadians and Portuguese [4], Chinese Canadians [5], Angolans [6], British [7] and Turks [8]. Loneliness is experienced in every stage of the lifespan, even in 5-year-old children [9]. Loneliness affects both young people (e.g., [8, 10, 11]) and older migrants (e.g., [12, 13]). For individuals in Western societies, loneliness seems to follow a U-shaped distribution, whereby adolescents/young adults (<25 years old) and older adults (>65 years old) have higher rates of loneliness than adults in the middle-age spectrum [7].

Extant literature calls our attention to the diffuse and adverse outcomes of loneliness [14]. In particular, immigration provides a unique opportunity to study loneliness. According to Ponizovski and Ritsner [15] 'newly immigrated persons find themselves in a drastically different network of social relationships and experience multiple stressors, including losses' (p. 408). However, contrary to what might be expected, the research of loneliness among migrants is scarce [3]. The main purpose of this research is to provide some insights into the experiences of loneliness among Brazilian migrants living in Portugal.

1.1. Brazilians living in Portugal

Currently, migration from Brazil is one of the largest immigration flows to Portugal. In 2014, this flow represented 22% of the foreign population resident in the country [16]. Although relations between these two countries are not a new phenomenon, the patterns of migration have changed over time. Despite the fact that Portugal used to be traditionally an emigration country, from the last quarter of the twentieth century, Portugal has become a mixed migratory pattern country. Presently, there are numerous Portuguese-speaking migrants, who are mostly from Brazil and Cape Verde, but other population groups became also numerous, such as Eastern European and China migrants [16].

The immigration from Brazil to Portugal started to rise in mid-1990. According to foreign registration statistics, only 7470 Brazilian immigrants resided in Portugal in 1989. However, in 2008, this foreign population exceeded 100,000 migrants and augmented to 119,363 in 2010. This period of time was clearly characterized by the labour migration caused by the progressive opening of the economy and the perception of imbalances in the structure of the Portuguese labour market. Many Brazilian immigrants work in low-skilled jobs, in sectors

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such as industry, construction, agriculture, services and tourism. When the financial and economic recession struck Portugal, many Brazilian workers, who had been employed in these sectors, lost their jobs. The precarious work has made Brazilian migrants extremely vulnerable to economic fluctuations and susceptible to unemployment. Despite the economic crisis creating a decrease of the foreign-resident population comparatively to previous years, in 2014, 87,493 Brazilians lived in Portugal [16].

According to official statistics [16], concerning the gender, there is a female predominance, with a percentage difference of 22.4%. Regarding the age, there is a concentration in the economically active age groups. And, concerning the geographic distribution, most of the immigrants are located above all along the coast line.

In order to deal with this new Portuguese migratory reality, the government's policies on immigration have undergone serious changes in terms of integration's policies, access to citizenship and regulation of flows. The pro-assimilationist discourse remains in the past and the new migration's political agenda is based on multiculturalism. According to the Migrant Integration Policy Index (MIPEX IV), Portugal has the second-most favourable integration policies in the developed world.

1.2. Loneliness and the migratory process

'Social transitions are a basic fact of modern life, and so is loneliness' ([17], p. 1). Diverse definitions of this phenomenon have been advanced and most definitions of loneliness emphasize perceived deficits in relationships. For instance, Ascher and Paquette [18] define loneliness as 'the cognitive awareness of a deficiency in one's social and personal relationships, and ensuring affective reactions of sadness, emptiness, or longing' (p. 75).

Loneliness is a psychological state, constituted by a set of cognitions and discomfort emotions which appear in reaction to the threatened loss of a person's social and affective bonds [19]. In fact, the scientific literature identifies two components related to loneliness: (a) a cognitive component, which compares the desired and the real social and affective relations quantitatively and qualitatively, and (b) an affective component involving negative emotional experiences such as sadness, emptiness, longing, disorientation or feeling lost among others.

Loneliness is not synonymous with being alone [20]. Loneliness is a state of mind rather than an objective condition. As observed by Peplau and Perlman [17] 'Loneliness is a subjective experience, it is not synonymous with objective social isolation. People can be alone without being lonely or lonely in the crowd' (p. 3). For example, it is possible to have many friends or an amorous relationship, and still feel lonely. Therefore, research on loneliness has mainly been evaluated through self-report measures that approach people's perceptions of their feelings [21].

The identification of the factors, which contribute to loneliness, is relevant for diverse motives, such as its relationship with low physical activity [22], poor academic competence and performance [23], unmet intimacy needs [24], health outcomes such as increment in hypertension [25], sleep disturbance [26] and mental health problems [26]. For instance, a relation between

loneliness, depressive symptoms, anxiety and suicidal ideation was found [27, 28]. Literature indicates that loneliness provides an increased risk of not only morbidity but also mortality later in life [29].

Many changes may occur as a result of migration [1] and these changes may impact on experienced loneliness by migrants. Some literature points out that migrants may be prone to loneliness as they are a target of discrimination [30]. However, there are studies that do not report differences in loneliness between migrants and native people from the societies of origin and of residence. For example, Portuguese youths living in France and Portuguese youths without migratory experience revealed no differences in loneliness [31]. Similar findings were shown among Portuguese migrants living in Switzerland [32], and among Angolan, Cape Verdean and Indian youths of immigrant backgrounds residing in Portugal [33]. A recent study even found that Portuguese youths returned with their migrant families from France displayed lower loneliness than native Portuguese who have never migrated [3]. In this vein, Fuligni [34] has reported: 'Some immigrant children show similar or better development outcomes than their American-born counterparts than would be expected because of their socioeconomic background and status as newcomers in American society' (pp. 299–300). Thus, several researches showed that not all migrants do evidence psychological disadvantages due to the intercultural contact.

1.3. The present study

The purpose of this study is to examine the relationship between loneliness and acculturation strategies, cultural identity, perceived discrimination, self-worth and social perceptions.

In the course of acculturation, migrants face new styles of living. Cultural identity and perceived discrimination are generally seen as core aspects of acculturation [33, 35, 36]. To examine the relationship between acculturation and loneliness, we used Berry's model [1] of acculturation strategies. Acculturation strategies indicate how the migrants wish to live interculturally in the settlement country after immigration [1] and these strategies are grounded in two basic intercultural dimensions: maintenance of one's cultural heritage ('culture maintenance') and contact with others outside one's group ('cultural contact'). The intersection of these two dimensions, 'cultural maintenance' and 'culture contact', results in four acculturation strategies, that is, assimilation, integration, separation and marginalization.

According to Berry et al. [1, 33, 35], assimilation refers to a migrant's low interest in maintaining his/her own cultural identity and being interested in having daily interaction with other cultures. Separation refers to an individual's interest in maintaining his/her own cultural identity and a low interest in having interaction with other cultures. Marginalization refers to little interest in one's own cultural maintenance and in establishing interaction with others. Finally, most of the research suggests that integration is the most adaptive, whereas marginalization is associated with poor psychological adaptation; the two other acculturation strategies, assimilation and separation, are intermediate [33, 35, 37]. In Portugal, Neto [38] found that the integration strategy had a significant and positive link to psychological adaptation and sociocultural adaptation among young immigrants from Angola, Cape Verde, Guinea-Bissau, India, Mozambique, São-Tomé and East Timor. Nguyen and Benet-Martinez [39] performed

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a meta-analytic study. They reported that integration ('biculturalism' in their terms) was significantly related to both psychological adaptation and sociocultural adaptation.

In the current research, we explore whether the preference of the integration strategy by Brazilian migrants has greater benefits for their adaptation than their preferences for other acculturation strategies.

Cultural identity represents one domain of acculturation that focus on migrants' sense of self, including both ethnic identity and national identity. Ethnic identity concerns their sense of belonging to the migrant ethnic group and national identity refers to their sense of belonging to the new society of settlement [35]. The great majority of studies about migration have approached only the ethnic identity; however, for migrants both ethnic identity and national identity are relevant [36]. A strong ethnic identity and national identity provides a sense of emotional stability, personal security and a good self-concept for migrants [36].

Cultural identity may have an important impact on loneliness. Investigation has evidenced a positive relation between cultural identity and adaptation. For example, both ethnic identity and national identity were positively associated with psychological adaptation in a large international study from 13 countries, including Portugal [35].

Besides acculturation strategies and cultural identity, we also analyse whether perceived discrimination exerts an influence on loneliness. Past research has examined whether perceived discrimination was related to psychological ill health [40]. The subjective interpretation of events as discriminatory may be positively related to loneliness [33, 39, 41].

Literature shows a consistent relation between loneliness and negative self-regard [42, 43]. Feeling lonely and experiencing low self-esteem are a common problem [44], especially in migrants [38]. Self-esteem includes feelings of personal worth [45]. Several theories (e.g., evolutionary theory and the cognitive discrepancy model) have acknowledged a relationship with self-esteem [44].

The feelings of loneliness tend to be linked not only to poor self-regard but also to negative social perceptions. For instance, lonely persons assessed interaction partners more negatively than non-lonely persons [46]. Similar findings for lonely persons' negative views of others have also be en shown outside the laboratory setting. For example, loneliness was related to negative views of others in classrooms [47], and in college students' judgements of their roommates [48].

In the current research, we analyse the relation between loneliness and self-esteem, and how the migrants rate members of their own national group (in-group evaluation), members of other national groups, that is, individuals of the host society (Portuguese), and individuals of other national groups of migrants (out-group evaluations).

In summary, we tested five hypotheses derived from the aforementioned research:

Hypothesis 1: It is predicted that the integration strategy will be negatively associated with loneliness, and the assimilation, separation and marginalization strategies will be positively associated with loneliness.

Hypothesis 2: It is hypothesized that loneliness will be negatively predicted by ethnic identity and majority identity.

Hypothesis 3: It is expected that perceived discrimination will predict higher levels of loneliness.

Hypothesis 4: It is expected that self-esteem will predict negatively loneliness.

Hypothesis 5: It is hypothesized that perceptions of others will predict loneliness negatively, beyond self-esteem.

2. Method

2.1. Participants

The participants were 258 Brazilian migrants (121 men and 137 women). The migrants ranged in age from 18 to 60 years (M = 35.92; standard deviation (SD) = 10.51). The mean length of residence was 14.33 years (SD = 9.59). Participants married constituted 48.8% of the sample, not married 50.0% and 1.2% of participants had not answered. Concerning employment, the main category was unskilled work (42%). Relative to the level of education, 41.8% had no secondary education, 39.9% had completed secondary education, 8.9% had attended tertiary education and 3.1% had not answered. Most of the migrants declared to be Roman Catholics (58.1%), and about a quarter declared that they have no religion.

2.2. Measures

For this study, we used the following measures:

Acculturation strategies. This scale consists of 16 items, grounded on the model of Berry [49, 50]. It evaluated four acculturation strategies (assimilation, integration, separation and marginalization), each one with four items. An example of an item assessing each of the acculturation strategies is as follows:

Assimilation: 'I feel Brazilian should adapt to mainstream Portuguese society and not maintain their own traditions';

Separation: 'I prefer to have only Brazilian friends';

Integration: 'Brazilians should have both Brazilian and Portuguese friends';

Marginalization: 'I don't want to attend either Portuguese or Brazilian social activities'.

Each item was assessed on a five-point scale from 1 (*strongly disagree*) to 5 (*strongly agree*). Cronbach's alpha of assimilation, integration, separation and marginalization for the present research was 0.63, 0.66, 0.66 and 0.75, respectively. The internal consistencies were moderate; however, factor analyses on data from the 13 countries participating in the International Comparative Study of Ethnocultural Youth (ICSEY), including Portugal, showed that the scales were unifactorial and comparable across countries and across ethnocultural groups [35].

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Cultural identity. Cultural identity was measured with a scale originally developed by Phinney et al. [36]. The scale assessed Brazilian identity with four items (Cronbach's alpha, 0.94). A sample item is 'I feel that I am part of Brazilian culture'. The other scale (four items) assessed Portuguese identity (Cronbach's alpha, 0.94). A sample item is 'I am happy that I am Portuguese'. Each item was rated on a five-point scale from 1 (*strongly disagree*) to 5 (*strongly agree*).

Perceived discrimination. This scale includes five items [35, 51] evaluating the direct experience of discrimination—negative or unfair treatment from others (e.g., 'I have been teased or insulted because of my Brazilian background'). Each item was rated on a five-point scale from 1 (*strongly disagree*) to 5 (*strongly agree*). Cronbach's alpha for the present study was 0.90.

Self-esteem. Self-esteem was assessed using the [52] 10-item inventory. Sample items are 'On the whole I am satisfied with myself' and 'I have a positive attitude toward myself'. Each item was rated on a five-point scale from 1 (*totally disagree*) to 5 (*totally agree*). The scale was previously adapted into Portuguese [53]. Cronbach's alpha for the current research was 0.72.

Attitudes towards ethnocultural groups. This measure was a version of the 'feeling thermometer', in which participants are presented with a scale of 1–100 and asked to indicate how favourable their attitude is towards immigrants coming from various countries (1 = *extremely unfavourable*, 100 = *extremely favourable*). Participants were asked to rate besides Brazilians and Portuguese, other 16 groups, including Angolans, Chinese and Cape Verdeans. Cronbach's alpha showed that the scale to assess attitudes towards the other 16 groups had good reliability in this study (Cronbach's alpha = 0.96).

Loneliness. The brief Portuguese version of the revised University of California, Los Angeles (UCLA) Loneliness Scale [54] was used [21, 55]. This is a six-item scale ULS-6. One sample item reads: 'People are around me but not with me'. Migrants were asked to indicate how often they felt for each statement on a five-point scale ranging from 1 (*never*) to 4 (*often*). Cronbach's alpha for the current research was 0.82.

Demographic information. The demographic questionnaire included the following: age, gender, place of birth, age at arrival in Portugal, marital status, level of education, occupation and religion.

2.3. Procedure

The recruitment of the participants was carried out in Lisbon Metropolitan area. The questionnaire was administered by two trained research assistants. The participation rate was high (about 75%). The respondents were informed about the goals and procedures of the study and they gave informed consent. The participants' responses were anonymous. All questionnaires were administered in Portuguese. The questionnaire took approximately 25 min to complete. There were no rewards given for completing the questionnaire. All aspects of the research were in line with American Psychological Association (APA) ethical guidelines [56].

3. Results

Before testing our hypotheses, descriptive statistics for the study variables are presented (see **Table 1**), and a series of analyses were performed to explore potential relations between socio-demographic variables and loneliness. One-sample *t*-test showed that the mean score of migrants on loneliness ($M = 2.03$; SD = 0.74) was significantly below the scale midpoint of 2.50 ($p < 0.001$). Overall, this result suggests that migrants experienced a relatively slight level of loneliness. Also, one-sample *t*-tests showed that the average score of integration ($M = 3.68$; SD = 0.73) was significantly higher than the midpoint (3) of the scale ($p < 0.001$), while average scores on assimilation ($M = 2.61$; SD = 0.71), separation ($M = 2.68$; SD = 0.76) and marginalization ($M = 2.40$, SD = 0.79) were significantly lower than the midpoint of the scale (all *p*s < 0.001). These mean scores pointed to two clusters: integration was unequivocally on the preferred side, while assimilation, separation and marginalization were not preferred. Regarding cultural identity, the mean score of ethnic identity ($M = 4.47$; SD = 0.93) was significantly higher than the midpoint of the scale (3), while national identity ($M = 2.27$; SD = 1.28) was significantly lower than the midpoint. Overall, these results suggest that ethnic identity is more valuated than national identity.

Now, we are going to present the relationships of loneliness in relation to socio-demographic variables such as age, gender, level of education and length of residence.

Age. Respondents were divided into two age groups: the young adults ranged in age from 18 to 34, and the middle-age adults (35–60 year olds). There were significant age differences across the adult lifespan, [$F(1, 255) = 4.75$, $p < 0.05$, $\eta^2 = 0.018$] on loneliness. The young adults ($M = 1.93$, SD = 0.73) felt less loneliness than the middle-age adults ($M = 2.13$, SD = 0.75).

	M	SD	Number of items	Cronbach's α
Assimilation	2.61	0.71	4	0.63
Integration	3.68	0.73	4	0.66
Separation	2.68	0.76	4	0.66
Marginalization	2.40	0.79	4	0.75
Ethnic identity	4.47	0.93	4	0.94
National identity	2.27	1.28	4	0.94
Perceived discrimination	2.15	1.09	5	0.90
Self-esteem	3.83	0.72	10	0.72
Attitudes towards Brazilians	9.71	1.06	1	–
Attitudes towards Portuguese	7.69	3.03	1	–
Attitudes towards other migrants	3.91	2.34	16	0.96
Loneliness	2.03	0.74	6	0.82

Table 1. Means, standard deviations and reliability coefficients of the measures for the Brazilian migrants ($N = 258$).

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Gender. There were no differences between men (M = 2.00, SD = 0.76) and women (M = 2.06, SD = 0.73), [$F(1, 255) = 1.35$, $p > 0.05$, $\eta^2 = 0.001$] on loneliness.

Education. There were no differences in the level of education for participants who have not completed secondary schooling (M = 2.12, SD = 0.72) and those who completed secondary schooling or tertiary education (M = 1.94, SD = 0.77), [$F(1, 247)= 0.3.80$, $p > 0.05$, $\eta^2 = 0.016$] on loneliness.

Concerning the *length of residence*, participants were divided into two groups: those with 10 years or less of length of residence in Portugal and those with more than 10 years. In relation to loneliness, there were no differences between participants with a shorter length of residence (M = 1.94, SD = 0.74) and those with a longer length of residence (M = 2.09; SD = 0.74), [$F(1, 255) = 0.2.57$, $p > 0.05$, $\eta^2 = 0.010$].

Pearson product-moment correlations between loneliness and intercultural strategies were performed in order to test hypothesis 1 (see **Table 2**). As expected, integration was negatively correlated with loneliness (r = -0.16, $p < 0.05$), while assimilation (r = 0.42, $p < 0.001$), separation (r = 0.22, $p < 0.01$) and marginalization (r = 0.48, $p < 0.001$), were positively correlated with loneliness. These findings confirm our first hypothesis.

In order to test whether cultural identity predicts loneliness, we performed a hierarchical multiple regression. Prior to performing the regression analysis, collinearity diagnostics were analysed to ensure that variance inflation factor did not exceed 10. To control for the possible confounding effects of gender, age, level of education and length of residence, they were entered in the first block. Ethnic identity and national identity were entered in the second block. In the first block, no significant socio-demographic predictor emerged. In the second block, the regression showed that 36% of the total variance in loneliness could be explained by the independent variables, $F(6, 244) = 22.25$, $p < 0.001$ (see **Table 3**). Loneliness was predicted by lower level of education (β = -0.11, $p < 0.05$), lower ethnic identity (β = -0.11, $p < 0.05$) and higher national identity (β = 0.56, $p < 0.001$). These findings support partially our second hypothesis.

To analyse the relationship between perceived discrimination and loneliness, we performed also a hierarchical multiple regression. Prior to performing the regression analysis, collinearity diagnostics were analysed to ensure that variance inflation factor did not exceed 10. To

	Loneliness
Integration	-0.16*
Assimilation	0.42***
Separation	0.22**
Marginalization	0.48***

* $p < 0.05$.

** $p < 0.01$.

*** $p < 0.001$.

Table 2. Correlations between intercultural strategies of Brazilian migrants and loneliness.

control for the possible confounding effects of gender, age, level of education and length of residence, they were entered in the first block. Perceived discrimination was entered in the second block. In the first block, no significant socio-demographic predictor emerged. In the second block, the regression showed that 41% of the total variance in loneliness could be explained by the independent variables, $F(5, 245) = 33.49$, $p < 0.001$ (see **Table 4**). Loneliness was predicted by higher perceived discrimination ($\beta = 0.62$, $p < 0.001$). These results support hypothesis 3.

Finally, to test the relationships between loneliness and self-worth and social perceptions, hierarchical multiple regression was used. Prior to performing the regression analysis, collinearity diagnostics were analysed to ensure that variance inflation factor did not

Variables	**Block 1, β**	**Block 2, β**
Age	0.13	0.02
Gender	0.03	-0.01
Level of education	0.02	-0.11*
Length of residence	0.10	-0.02
Ethnic identity		-0.11*
National identity		0.56***
R^2	0.04	0.36
Adjusted R^2	0.04	0.34
F-change	2.57*	60.29***

* $p < 0.05$.

*** $p < 0.001$.

Table 3. Hierarchical regression models of socio-demographic variables and cultural identity predicting loneliness among migrants.

Variables	**Block 1, β**	**Block 2, β**
Age	0.13	0.06
Gender	0.03	-0.02
Level of education	0.02	0.04
Length of residence	0.10	0.10
Perceived discrimination		0.62***
R^2	0.04	0.41
Adjusted R^2	0.04	0.40
F-change	2.57*	152.46***

*** $p < 0.001$.

Table 4. Hierarchical regression models of socio-demographic variables and perceived discrimination predicting loneliness among migrants.

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Variables	Block 1, β	Block 2, β	Block 3, β
Age	0.13	0.02	0.05
Gender	0.03	0.03	0.05
Level of education	0.02	-0.06	-0.03
Length of residence	0.10	0.03	0.02
Self-esteem		-0.46***	-0.43***
Attitudes towards Brazilians			-0.22***
Attitudes towards Portuguese			0.01
Attitudes towards other ethnocultural groups			0.14***
R^2	0.04	0.22	0.27
Adjusted R^2	0.04	0.20	0.24
F-change	2.57*	55.39***	5.75**

*** $p < 0.001$

Table 5. Hierarchical regression models of socio-demographic variables, self-esteem and social perceptions predicting loneliness among migrants.

exceed 10. To control for the possible confounding effects of gender, age, level of education and length of residence, they were entered in the first block. Self-esteem was entered in the second block. The final block included attitudes towards Brazilians, attitudes towards Portuguese and attitudes towards other ethnocultural groups. No significant predictors emerged in the first block. In the second block, self-esteem (β = -0.46, $p < 0.001$) emerged as a significant predictor of loneliness. Independent variables explained 22% of the total variance in loneliness. In the third block, the explained variance increased to 27%, $F(8, 239) = 10.62$, $p < 0.001$. Self-esteem (β = -0.43, $p < 0.001$) remained in this model as a significant predictor, and lower attitude towards Brazilians (β = -0.22, $p < 0.001$) and higher attitudes towards other ethnocultural groups (β = 0.14, $p < 0.001$) emerged also as significant predictors. These results support hypothesis 4, while hypothesis 5 was only partially supported(see **Table 5**).

4. Discussion

This study tested five hypotheses among Brazilian migrants living in Portugal. The data supported three hypotheses; however, two hypotheses were only partially supported. The results showed that Brazilians prefer integration, that is, the maintenance of their own cultural heritage and also the development of close ties with the host society. The first hypothesis was supported as integration was associated negatively with loneliness and positively with the other three acculturation strategies. Thus, the present results match with those reporting a positive correlation between a favourable attitude towards integration and migrants' psychological adaptation [39]. The more opportunities to both, maintaining the heritage culture and identity

and seeking relationships among groups in the society of settlement, the more migrants tend to display lower loneliness.

The second hypothesis was partially supported. As expected, ethnic identity predicted negatively loneliness in agreement with past research that supports the view that a strong ethnic identity contributes positively to psychological well-being [35, 36]. However, contrary to our expectation national identity predicted positively loneliness. This finding does not support the view that positive psychological outcomes for migrants tend to be related to a strong identification with the society of settlement.

Perceived discrimination predicted loneliness in accordance with previous research [41]. The relationship between perceived discrimination and loneliness was also in agreement with past research that showed links between experiences of ethnic discrimination and poor psychological well-being [38, 40, 57]. When a migrant recognizes unequal treatment because of his/her membership in a group, he or she will tend to experience loneliness. This result supports hypothesis 3.

A strong relationship between self-esteem and loneliness was found, denoting that lonely migrants had less favourable views of themselves than non-lonely migrants, which is in consonance with previous research on adolescents [26, 44] and among adults [41]. This finding supports our fourth hypothesis. This cross-sectional study does not allow us to explore the direction of the effect between self-esteem and loneliness. However, previous research indicates that self-esteem and loneliness reciprocally affect one another [17, 44]. According to this view, both constructs exacerbate one another over time.

In this study, we have tested the negativity of social perceptions, in particular, how migrants rate members of three national groups. Findings showed that the negativity of the perceiver effect cannot be generalized to all national groups. So hypothesis 5 was only partially supported. A negative evaluation of the Brazilians was related to higher loneliness, a finding in agreement with our fifth hypothesis. However, no relationship was found between loneliness and the evaluation of members of the host society, but a positive association was found between loneliness and attitudes towards other migrant groups. How can this lack of generalizability of the negative perceiver effect be explained?

The negativity of lonely persons' social perceptions has been consistently documented [39, 43, 58]. However, Christensen and Kashy [59] found the opposite using unacquainted persons as participants. Lonely people showed a positivity bias in perceiving others. This result suggests that lonely persons' negativity might target close friends more than new contacts. However, [43] have observed that 'Christensen and Kashy's study left ambiguity to the use of participants who were previously unacquainted with each other or to the sophisticated SRM analyses' (p. 224). Tsai and Reis [43] shed light on this aspect. They showed that 'rather than being universally negative about others, lonely people appear to be negative primarily in their ratings of close acquaintances' (p. 236). If it would be possible to translate those findings at the level of close acquaintances to the level of close nationalities, our findings make sense. Lonely migrants target more negatively members of their national group (Brazilians) than members of the society of settlement or of other

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migrant groups. To lonely migrants, novel contacts with members of other nationalities may constitute new opportunities for meeting intimacy needs. It is worthwhile to research if the pattern of results found in the present study is also present in other migrants groups or in other cultural contexts.

In conclusion, this study followed Berry's [1] strategies of acculturation to determine different degrees of loneliness among Brazilian migrants in Portugal and to recommend ways of counteracting the consequences of this condition. Our research displayed that lonely migrants tended to have negative views towards themselves, but in terms of perceiving others, these pessimistic views cannot be generalized to all national groups. They were more salient in relation to their own national group than towards other national groups.

This study has several limitations that should be noted. Firstly, participants were recruited through the snowball technique which limits their representativeness. Secondly, all the data were self-reported. Thirdly, the findings of this research are cross-sectional and correlational and therefore the causal relations between variables cannot be determined. Finally, given the uniqueness of the immigrant population studied we are uncertain whether current findings can be generalized to other immigrant groups and worldwide.

Despite these limitations, the current study suggests implications for interventions aimed at alleviating loneliness. The consistent relationship between loneliness and a large array of relevant health problems (e.g., depression, anxiety, suicidal ideation and substance abuse) highlights the need to develop interventions in order to alleviate loneliness. For example, findings from the current work stress the relevance of enhancing self-esteem, positive attitudes towards the Brazilians and ethnic identity. A meta-analysis on loneliness interventions showed that social skills training was less effective comparatively with interventions addressing maladaptive social cognitions [14]. Thus, our results are in agreement with ([44], p. 1078) suggesting that 'clinical work could significantly benefit from extending current social skills trainings with interventions aimed at improving social cognitions and self-perceptions'.

As psychologists, we have emphasized individuals and individual differences. Experts using other approaches might reach different explanations. For example, anthropologists might have found a larger role for culture; sociologists, a larger role for power relations and established institutions; and political scientists, a higher relevance for national policies. We argue that using the psychological strategies of acculturation, as developed by Berry [1], provided this study with some important findings which could be integrated into the education of health-care professionals to combat loneliness among migrants.

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Chapter 10

Asians as Model Minorities: A Myth or Reality among Scientists and Engineers in Academia

Meghna Sabharwal

Additional information is available at the end of the chapter

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Abstract

Asians from China, India, South Korea, and Taiwan constitute the largest non-White group in academic science and engineering (S&E). Most of the studies in relation to race/ethnicity combine Asians into one category whether they are immigrants (foreign born) or US citizens. Research has suggested that job satisfaction differs with the type of citizenship status held by faculty members. However, what studies fail to notice is that Asian faculty members who are either born in the United States or are naturalized might experience very different levels of attitudes and satisfaction toward their job when compared with Asian faculty members who are foreign born and on temporary visa status, impacting retention. Do institutions recognize the differences between these two groups, or are Asian faculty members considered a "model minority" group and "problem-free?" This is the question that this study aims to examine. Given the growing competition in S&E globally, matters pertaining to faculty members' satisfaction, retention, and persistence will take a front seat among policy makers and university administrators. Data for this study come from the National Science Foundation's Survey of Doctorate Recipients (SDR).

Keywords: Asian-non-US citizens, other non-US citizens, Asian-US citizens, other-US citizens, immigrant scientists, academic science and engineering, job satisfaction, job productivity, "model minority"

1. Introduction

Asians constitute the largest non-White group in academic Science and Engineering (S&E) in the United States (USA). According to recent S&E indicators report, in 2014, Asian faculty members, being born in the United States or foreign born, occupied close to 16% of full-time positions in US academic institutions, up from 4% in 1973. These people come from countries

such as Far East, Southeast Asia, or the Indian subcontinent, for example, Cambodia, China, India, Indonesia, Japan, Korea, Malaysia, Pakistan, the Philippines, Singapore, Taiwan, Thailand, and Vietnam. Note that the use of faculty does not imply an academic department or organizational unit rather refers to academic personnel (tenured and nontenured academic staff members) working at a university. These numbers are much higher in disciplines like computer sciences where over one-third (35%) of faculty members are of Asian origin [1]. According to the 2014 S&E Indicators report, "of the 46,000 US-trained Asian or Pacific Islander S&E doctorate holders employed in academia in 2010, 10% were native-born US citizens, 39% were naturalized US citizens, and 51% were noncitizens. In 2010, Asians or Pacific Islanders represented 52% of the foreign-born S&E faculty employed full-time in the United States [2].

Of the foreign-born faculty members, scholars of Chinese (22%) and Indian (15%) origin occupy more than a third of the full-time positions at 4-year colleges and universities in the United States [3]. Despite these statistics, there are no systematic studies examining the job satisfaction of Asian faculty members working in science and engineering departments in the United States. Most of the studies by race/ethnicity combine individuals of Asian descent into one category irrespective of their citizenship status Faculty members born in the United States or naturalized through the immigration process experience very different levels of satisfaction toward their job when compared with foreign-born faculty members on temporary status [3]. This study thus separates Asians by their citizenship status (i.e., Asian-non-US citizens and US citizens) and compares their satisfaction to other-noncitizens and other-US citizens. Data for this study comes from the 2003 Survey of Doctorate Recipients conducted by the National Science Foundation (NSF).

The academic sector in the United States is to a large extent dependent on the scientific contributions made by foreign-born scientists and engineers [4–6]. However, there is seldom a study exclusively focused on citizenship status and race. Even though many parallels can be drawn between the experiences of US-born Asians and foreign-born Asians, their achievements/barriers in the US labor market are likely to differ, mostly because immigrants from Asian countries arrive with different cultural, educational, and English language abilities. Retaining this group of scientists is important not only because they contribute to the scientific and technological growth of this country but also are a source of diversity [6]. The temporary nature of the citizenship among Asian scientists is concerning.

The governments of nations such as China, India, South Korea, and Taiwan who are the top exporters of talent to the United States are devising policies to attract thousands of their graduates back from the United States, creating newer economic opportunities for their returnees and the nation [7]. Traditionally, the United States has witnessed close to 85–95% stay rates among foreign-born scientists and engineers of Chinese and Indian origin; this number is on the decline, however. The percentage of India-born US-trained PhDs in science and engineering on temporary visa who continued to stay in the United States dropped from 85% in 2005 to 79% in 2009 [8]. The stay rates among Chinese born with identical visa status and educational training have dropped 4 percentage points during the 4-year period (93% in 2005 and 89% in 2009) [8]. There is evidence that between 1992 and 2003, more than eight thousand

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foreign-trained scholars returned to mainland China on short visits funded by the Chinese government to lecture and engage in research collaborations [9]. Taiwan reported an 11% point decrease of stay rates from 2005 to 2009, while the highest drop is witnessed among South Korean scientists during the same time period (57% to 42%) [8]. Further, in 2008 of the 39,000 Asian/Pacific Islander PhDs employed in academia, 9% were native-born US citizens, 44% were naturalized US citizens, and 47% were non-US citizens [10]. Thus, Asian scientists on temporary visas (noncitizens) are the largest contributors to academic science and engineering.

The temporary nature of Asian scientists in S&E is thus an important aspect of the scientific enterprise of the United States. A recent article indicated that the Chinese government is providing research money and setting up labs for the returnees to continue their research. China recently launched the "Thousand Talents Programme" that aims at offering top scientists grants of 1 million yuan (about $146,000) along with generous lab funding [11]. India, on the other hand, has not moved as quickly as China, but the Department of Science and Technology recognizes that creating an environment that will facilitate the return of scientists and engineers of Indian origin is crucial in building and fostering collaborative ties with the international scientific world and meeting the human capital demands in higher education. Given the competition in science and technology with other nations and the efforts made by countries, such as South Korea, China, and, to some extent, India, to reclaim their highly skilled faculty members, matters of faculty satisfaction, retention, and persistence will take a front seat among policy makers and university administrators. Thus the purpose of this study is to analyze how Asian-non-US citizens and Asian-US citizens compare with other groups of members of S&E faculties in their satisfaction levels.

2. Asians as model minorities

Among the major racial/ethnic groups in the United States, Asian-Americans have the highest levels of education, income, and socioeconomic status [12]. While US citizens of Asian background have come a long way since the time early migrants came as slave laborers about 150 years ago. Asians are referred to as "model minorities." The term "model minority" was coined by higher academic achievement and socioeconomic status of current-day Asians when compared with African-Americans and Hispanics [13–16]. However, critics of this model argue that this group continues to confront inequities in income and upward job mobility when compared with their Caucasian counterparts [17–20]. Therefore the question arises: is "model minority" a reality or a myth?

The perception of "model minority" is attributed to factors such as college graduation rates, socioeconomic status, and higher representation in science and engineering disciplines [18]. The author also argues that Asian-Americans are more likely to graduate from college when compared with other minority groups (African-Americans and Hispanics). Further, they have family support that keeps them motivated to be successful and thus achieve higher paying jobs that translate into improved socioeconomic status. This group has the highest

representation in science and engineering disciplines as demonstrated by the success of the American immigration policy targeting high-skilled science and engineering professionals [21]. Given the high rates of representation of people of Asian descent in science and engineering, the National Science Foundation no longer includes this group as a minority since 1989. The minority categories in subsequent years include members of the following ethnic groups: Alaskan Native, Native American, African-American, and Hispanic. Thus, the "model minority" image reduces Asian-Americans as a racial group free of any challenges or racism—touted as the American success story [22].

Recent research has however criticized the "model minority" status glorified by several scholars [13–15, 23–25]. Studies show that this group faces challenges of income disparity and upward mobility in their jobs owing to their "outsider" perception [19, 20, 26]. A recent study shows that Asian-Americans have a 12% higher poverty rate than their white counterparts [27] despite the high median income reports [26].

3. Asian scientists and engineers: job satisfaction

This study will utilize data from the Survey of Doctorate Recipients, a national representative survey conducted by the National Science Foundation that understands the factors that contribute toward an individual's satisfaction/dissatisfaction with work. Work satisfaction improves the well-being of employees [28, 29] but more importantly increases the retention of faculty members [30, 31]. Several factors that impact an individual faculty member's job satisfaction are research productivity, faculty rank, tenure status, supervisory position, Carnegie classification of employer institution, discipline, salary, and sociodemographic factors [3, 32–37]. These will be examined for US citizen and noncitizen groups and compared to Asian-non-US citizen and Asian-US-citizen groups.

Studying satisfaction rates is important because faculties have high levels of job autonomy and they have the discretion to decide how they spend their time and resources. Dissatisfaction with any aspect of their job can result in lower productivity and quality of work [38]. A well-functioning faculty would not only impact the morale and quality of faculty members but also influence future faculty members and students. Past studies have shown various barriers faced by minority groups, impacting on their job satisfaction rates [39]. Foreign-borns of a faculty are likely to face challenges due to their citizenship status, cultural differences, the stereotypes they encounter, and varied levels of English language skills.

Lower satisfaction was reported among Asian and Middle Eastern faculty members in relation to job autonomy, decision-making authority, salary and benefits, job security, opportunities for career advancement, and outside consulting [40]. In another study, Asian-Indian individuals working in the academic and nonacademic sector in the United States (and a few who had returned to India) faced a glass ceiling at work, albeit they constitute a large proportion of the S&E workforce. Whites in S&E are ahead of Asian-Indian immigrants in management positions because of the cultural advantage they hold over Asians [41].

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"The result is a promotion sequence that amounts to an uninterrupted, non-Hispanic White male succession, and a tendency to ignore structural conditions that create obstacles for Asian-Indian immigrants in the S&E workforce (p. 111)." [41]

One of the biggest reasons for Asian-American immigrants to be absent from upper management levels is due to the perceived lack of leadership qualities and poor English language skills. As one of the faculty members pointed out:

"Suppose you apply for a dean's position. You have good credentials and excellent English, but you also have an accent. I bet you will not be offered the job. The hiring committee will not see you as having language qualifications suited for the American system, though they will not say this openly (p. 103)." [41]

These factors can cause stress and lower one's level of job satisfaction. Asian-non-US-citizen scientists also experience lower satisfaction when spending greater amounts of time in teaching-related activities. A qualitative study of 20 engineering faculty members from China and India employed at a Research I University aimed at measuring their job satisfaction found that these individuals expressed greater frustration because of lack of recognition and concern with balancing teaching and research [42]. Other studies reported that Asian faculty members reported the least satisfaction among all ethnic groups. Despite the challenges faced by foreign-born faculty members, higher productivity rates were reported compared with native-born faculty members [3–6, 43–45].

4. Data and methodology

Data for this study comes from the 2003 Survey of Doctorate Recipients (SDR)[1] conducted by the National Science Foundation. This dataset was chosen because it has a large sample size and is highly recommended for data sampling. It has rich information on demographics, citizenship, nationality, educational background, employment, wages, scholarly activities, and job satisfaction. Such a large coverage reduces the risk of sampling error. In addition, the 2003 SDR data have information about the visa status of the doctoral recipients. This will help further break down the analyses of foreign-born faculty members based on visa status.

The survey was funded by the National Science Foundation and the National Institutes of Health. The actual survey was conducted by the National Opinion Research Center (NORC) at the University of Chicago. The data were collected from doctorate recipients with a degree from a US institution in the fields of science, engineering, or health sciences in June 2002. All the participants were under 76 years of age as of October 1, 2003, which was taken as the survey reference week. A total of 40,000 individuals with doctoral degrees were sampled in the 2003 survey.

[1]The 2003 SDR data were used since this is the only most current data that queries the respondents on various aspects of job satisfaction. Subsequent surveys only have one question on the overall job satisfaction. For more details visit http://www.nsf.gov/statistics/srvydoctoratework/.

The unit of analysis for this study is the individual academic scientist; hence, respondents with nonacademic jobs are filtered before beginning the analysis. For this filtering process, academics are counted as those faculty members working in a 4-year college or university during the reference week of October 2003. The data analysis is further limited to (1) full-time faculty employers and (2) faculty members employed in the real of science and engineering disciplines: biological, agricultural, and environmental life sciences; computer and information sciences; mathematics and statistics; physical sciences; and engineering. Individuals reporting psychology, social sciences, and health as the field of their first S&E degree were eliminated since the sample was very small for the Asian group to conduct any meaningful analyses. The original unweighted sample size was 29,915 and the weighted sample size was 685,296. The final sample resulted in 6375 (unweighted) and 141,625 (weighted) after following the various filtering stages outlined in this section. Data analysis is conducted by race/ethnicity and citizenship status. Information about race/ethnicity of individual's parents is not available. The respondents self-identify into a specific racial group.

It is important to mention that citizenship data is classified into four categories: US citizens, naturalized citizens, legal permanent residents (LPR), and temporary residents. Naturalized citizens are combined with US-born faculty members into one category (citizens), and LPR and temporary residents are classified as non-US citizens.

5. Results

5.1. Differences in job characteristics

Comparisons are made across four subgroups of faculty members: Asian-US citizens (10.7%), Asian-US noncitizens (4.2%), other-US citizens (80.4%), and other non-US citizens (4.7%). Other noncitizens are faculty members belonging to African-American, Hispanic, White, and other racial/ethnic groups born outside the United States. The majority of Asian-non-US citizens are from China (39.9%) followed by India (26.1%), Korea (8.2%), and Taiwan (6%). **Table 1** presents the mean differences between Asian-US citizens, Asian-non-US citizens and US citizens, and other-US-citizen groups. Across the four major groups, the highest number of female faculty members belongs to Asian-US citizens (32%), followed closely by other-non-US citizens (30%). Over 75% of all faculty members in all four groups are married. Asian-non-US citizens are the youngest group of faculty members with an average age of 39 years, while other-US citizens are the oldest with an average age of 49 years.

Majority of the faculty members among Asian-non-US citizens were employed at research I/II universities. A majority of Asian-US citizens received their highest degree in Biology (43.5%), similar to other-US-citizen groups (45%). Asian-non-US citizens have the highest percentage of faculty members with a degree in computer science (10%) and engineering (23%). These statistics are not surprising given that the majority of Asians come to the United States to get their doctoral degrees in these disciplines [1].

Interestingly, though the same percentage (56%) of faculty members belonging to both non-US-citizen groups (Asian and non-Asian) report working at a Research university,

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	Asian-non-US citizens (N = 268, 4.2%)	Other-non-US citizens (N = 302, 4.7%)	Asian-US citizens (N = 680, 10.7%)	Other-US citizens (N = 5,125 80.4%)
Research productivity				
Average number of articles published between 1998 and 2003	8.12	9.48	9.90*	8.64
Average number of books published between 1998 and 2003	0.56	0.39	0.76	0.58
Average number of conference presentations between 1998 and 2003	11.10	12.02	12.22	11.25
Percent named as a patent inventor	15.0%	12.0%	18.0%**	13.0%
Percent granted a federal grant	57.0%	55.0%	60.0%	57.0%
Career trajectory				
Recognition—holding dean/department chair position	2.2%	3.0%	6.6%**	10.4%
Responsibility—supervising others	49.6%	49.0%	60.0%**	66.0%
Full professor	7.0%***	17.0%	34.0%**	39.0%
Associate professor	17.0%	17.0%	22.0%	24.0%
Assistant professor	46.0%	44.0%	24.0%+	21.0%
Instructor/lecturer	4.0%	6.0%	3.0%	3.0%
Other ranks	25.0%*	17.0%	17.0%**	12.0%
Tenure status				
Tenured	19.0%**	31.0%	50.0%**	55.0%
On tenure track but not tenured	37.0%	36.0%	19.0%	18.0%
Not on tenure track	17.0%	14.0%	13.0%*	10.0%
Tenure not applicable	27.0%*	18.0%	19.0%	17.0%
Job characteristics				
Research and development	62.0%**	51.0%	51.0%***	40.0%

	Asian-non-US citizens (N = 268, 4.2%)	Other-non-US citizens (N = 302, 4.7%)	Asian-US citizens (N = 680, 10.7%)	Other-US citizens (N = 5,125 80.4%)
Teaching	24.0%**	35.0%	29.0%***	40.0%
Institution type				
Research I/II universities	56.0%	56.0%	55.0%**	50.0%
Doctoral I/II university	12.0%	11.0%	10.0%	11.0%
Comprehensive I/II university	11.0%*	18.0%	14.0%**	19.0%
Liberal arts I/II university	2.0%	4.0%	4.0%***	8.0%
Others	19.0%*	12.0%	17.0%**	13.0%
Academic discipline				
Biology	37.7%**	26.0%	43.5%	45.0%
Mathematics and statistics	12.0%*	18.0%	9.0%	10.0%
Physical science	18.0%**	27.0%	20.0%**	25.0%
Computer and information sciences	10.0%	8.0%	7.0%***	3.0%
Engineering	23.0%	22.0%	21.0%**	17.0%
Salary	$62,922+	$66,778	$83,842	$81,870
Years of experience	7.09**	9.15	15.45***	17.73
Demographics				
Female	25.0%*	30.0%	32.0%***	24.0%
Married	81.0%+	74.0%	83.0%	82.0%
Age	39.4**	41.4	46.8***	48.7
Children living with parents	63.0%**	51.0%	55.0%**	50.0%

Note: *t*-Test comparisons across groups are statistically significant at various levels:
***$p < 0.001$,
**$p < 0.01$,
*$p < 0.05$, and
+$p < 0.1$.

Table 1. Mean differences in job characteristics.

Asian-non-US citizens far surpass the other groups in the time they report spending on research and development (62% vs. 51%), while the reverse is true for time spent teaching (24% vs. 35%).

On analyzing the rank of faculty members by citizenship and race, it is interesting to note that 7% of Asian-non-US citizens are full professors, while about 17% are full professors among

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other-non-US-citizen groups. These differences are statistically significant between the two groups. One possible explanation for this disparity is that other-non-US-citizen faculty members have 2 years more experience than Asian-non-US citizens. However, Asian-US citizen and other-non-US-citizen groups have equal proportions of faculty members employed in associate professor positions (17%). As others have argued, this could also be a result of glass ceiling experienced by Asian faculty members while climbing the academic ladder [20, 46, 47]. The difference in tenure rates between these two groups of faculty members is important (19% Asian-non-US citizens and 31% other-non-US citizens) and statistically significant. Significant differences in tenure rates are also seen between Asian-US citizens and other-US citizens. Further investigation is required to determine whether Asian-non-US citizens are faced with barriers while trying to move up or whether they are experiencing lower promotion rates due to their temporary citizenship status. Similar patterns emerge when comparing Asian and other citizen groups, with fewer Asians-US citizens in leadership and full-professor positions.

5.2. Job satisfaction in relation to Asian descent and citizenship

Though Asians have been touted as "model minorities," the results of this study show otherwise. Despite being faced with career trajectories that are not on par with other-US-citizen/non-US-citizen groups, Asian-US citizens are the most productive. They produced the highest number of annual peer-reviewed journal articles, books, and conference papers. Asian-US citizens also are most likely to be named as inventors of a patent and awarded a federal grant when compared with the remaining three groups. Despite higher productivity, the average difference in salaries between Asian-US citizens and other-US citizens is not statistically significant.

Alongside comparing productivity and career trajectories, the aim of this study is to analyze the satisfaction of scientists and engineers by citizenship and race. The data in **Table 2** suggests that on average Asian-non-US citizens (3.20) and Asian-US citizens (3.38) express significantly lower overall satisfaction with their job than other-non-US-citizen (3.41) and US-citizen (3.46) groups.

Satisfaction is further analyzed as a measure of nine different factors: opportunities for advancement, benefits, intellectual challenge, degree of independence, location, level of responsibility, salary, job security, and contribution to society. On analyzing satisfaction by various factors, Asian-non-US citizens express the least average satisfaction on all factors but opportunities for advancement when compared with the three groups, other-non-US citizens (3.06), Asian-US citizens (2.99), and other-US citizens (3.04). Furthermore, Asian-non-US citizens and Asian-US citizens experience significantly lower levels of responsibility at work than other-non-US-citizen and US-citizen groups.

Dissatisfaction with level of responsibility is evident by the lower numbers of Asian-US citizens in dean/chair/full-professor positions when compared with other-US citizens. The results are in line with past research that focuses on the existence of the glass ceiling to upward career mobility experienced by Asians [20, 46, 47]. These studies question the portrayal of Asians in the US media as a "model minority." Instead, they argue that despite their achievements, Asians have not reached a level in which they participate in policy and decision-mak-

ing responsibilities [41]. Additionally, both groups of Asian faculty members (US citizens and non-US citizens) express significantly lower satisfaction with salary and benefits when compared with other-non-US-citizen and US-citizen groups.

Work satisfaction measures[a, b]	Asian-non-US citizens (N = 268, 4.2%)	Other-non-US citizens (N = 302, 4.7%)	Asian-US citizens (N = 680, 10.7%)	Other-US citizens (N = 5,125, 80.4%)
Overall job satisfaction	3.20***	3.41	3.38**	3.46
Opportunities for advancement	3.01	3.06	2.99	3.04
Benefits	3.08***	3.31	3.19*	3.26
Intellectual challenge	3.38*	3.53	3.53*	3.59
Degree of independence	3.54*	3.64	3.65*	3.70
Location	3.10***	3.34	3.36*	3.42
Level of responsibility	3.29**	3.45	3.40***	3.55
Salary	2.74***	2.97	2.88***	2.99
Job security	3.10+	3.22	3.35	3.40
Contribution to society	3.46	3.52	3.58	3.58

[a] Results are in response to the following statement: "Thinking about your principal job held during the week of October 1, 2003, please rate your satisfaction with that job's ….".
[b] Possible responses: 1 = very dissatisfied, 2 = somewhat dissatisfied, 3 = somewhat satisfied, and 4 = very satisfied
***$p < 0.001$.
**$p < 0.01$.
*$p < 0.05$.
+$p < 0.1$.

Table 2. Mean differences in job satisfaction by race and citizenship.

Asian-non-US citizens also express significantly less satisfaction with location when compared with other non-US citizens. The location of faculty members and its impact on their job satisfaction have not been studied in detail. The geographic location of faculty members is especially of importance when foreign-born faculty members are the subject of the study. The choice of location is generally limited among foreign-born faculty members, especially faculty members on nonimmigrant visa status. These groups of faculty members have fewer opportunities to find academic employment with visa sponsorship and are thus more likely to take up a tenure-track position irrespective of the location as compared with US citizens. Additionally, Asian-non-US citizens also express lower satisfaction with job security ($p < 0.1$) when compared with other-non-US citizens.

Job security is an important issue for non-US-citizen faculty members. Citizens of Indian and Chinese origin experience the longest delays in processing their permanent residency. An estimate suggests that there are over half a million skilled individuals waiting to get permanent residency in the United States [48]. Under the employment-based immigration category

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(EB2), as of October 2016, applications filed in the year 2007 and later are being processed for immigrants from India [49]. The massive backlog in acquiring permanent residency is adding to the frustration faced by these groups of scientists. Challenges with acquiring a legal permanent residence (LPR) can serve as a deterrent for faculty members who would like to stay in the United States. The desire to acquire permanent residency along with existing pressures of being on a tenure-track position can result in lower satisfaction with job security and opportunities for advancement among Asian-non-US citizens. Other-non-US citizens do not face similar challenges with acquiring permanent residency and/or citizenship; the processing times are drastically shorter than Indian and Chinese immigrants [50].

5.3. Regression analysis of job satisfaction and productivity, career trajectory and job characteristics by citizenship status

To further explore the differences in satisfaction, four OLS regression models were run, and the results of which are presented in **Table 3**. The dependent variable is job satisfaction. Most of the studies use a global variable to measure faculty members' job satisfaction [34, 44, 51]. The questions are generally "yes" or "no" or are on a Likert scale with responses varying from "very satisfied" to "very dissatisfied." Single item measures of job satisfaction overestimate the percentage of satisfied vs. dissatisfied employees. On the other hand, multiple-item measures are better for estimating satisfaction levels [29]. This study thus uses nine questions that measure different aspects of work satisfaction to create the dependent variable job satisfaction. Participants used a 1-to-4 rating scale numbered from 1 (very satisfied) through 4 (very dissatisfied). Scores were subsequently reverse-coded with lower scores signifying lower levels of satisfaction and higher scores indicating more job satisfaction. The total job satisfaction scores range from 9 through 36 ($\alpha = 0.79$).

	Model 1 Asian-non-US citizens (N = 268, 4.2%)	**Model 2 other-non-US citizens (N = 302, 4.7%)**	**Model 3 Asian-US citizens (N = 680, 10.7%)**	**Model 4 other-US citizens (N = 5,125, 80.4%)**
Research productivity				
Annual number of articles published	0.063**	-0.014	0.134***	0.097***
Annual number of books published	0.284***	-0.362*	0.011	0.089*
Annual number of conference presentations	-0.030*	-2.874E-4	0.114***	0.059**
Percent named as a patent inventor	0.538***	0.828***	-1.198***	0.017
Percent granted a federal grant	0.865***	0.954***	0.146+	0.676***
Career trajectory				
Recognition—holding dean/department chair position	2.284***	2.892***	0.904***	0.597***
Full professor (reference group)				
Associate professor	1.211***	-0.476**	-0.570***	-0.685***

	Model 1 Asian-non-US citizens (N = 268, 4.2%)	Model 2 other-non-US citizens (N = 302, 4.7%)	Model 3 Asian-US citizens (N = 680, 10.7%)	Model 4 other-US citizens (N = 5,125, 80.4%)
Assistant professor	0.420**	-0.373	-0.524***	-1.520***
Instructor/lecturer	0.764**	0.651**	-1.582***	-0.824**
Tenure status—tenured (reference group)				
On tenure track but not tenured	1.005***	-0.576*	1.163***	1.127***
Not on tenure track	-0.808***	-2.804***	-2.406***	-1.258***
Tenure not applicable	0.472*	-3.551***	-1.205***	-1.011***
Years of experience	0.023*	-0.087***	0.051***	0.027***
Job characteristics				
Research and development (reference group)				
Teaching	-0.599***	0.482***	-0.975***	-0.345***
Institution type—research I/II universities (reference group)				
Doctoral I/II university	1.034***	-0.653***	-0.326**	0.622***
Comprehensive I/II university	1.250***	-1.796***	-0.483***	-0.850***
Liberal arts I/II university	-1.649***	-3.240***	-0.988***	0.925***
Others	-0.606***	-0.556***	-0.031	0.057
Discipline—biology (reference group)				
Mathematics and statistics	-1.713***	-0.532***	0.113	0.017
Physical science	-0.164	-0.49***	0.071	0.073
Computer and information sciences	0.720***	-0.104	0.282+	-0.177
Engineering	0.289*	-0.847***	-0.236*	-0.881***
Salary	2.583E-5***	2.751E-5***	6.000E-6***	1.069E-5***
Demographics				
Male	-0.234*	-0.309*	-0.088	-0.022
Married (reference group)				
Never married	0.906***	0.360*	-0.407**	-1.007***
Divorced and separated	1.005***	1.132***	0.354*	-0.640***
Children living with parents	-0.247*	-0.629***	-0.352***	0.191*
Pacific region	0.755***	1.450***	0.101	0.145
Linguistic distance	-1.918***	0.053	-3.190***	0.956**
Adjusted R square	0.218	0.247	0.216	0.167

Dependent variable: job satisfaction index
***$p < 0.001$.
**$p < 0.01$.
*$p < 0.05$.
+$p < 0.1$.

Table 3. Job satisfaction by race and citizenship.

The regression uses several sets of independent variables, which are classified into three major categories (a) research productivity, (b) career trajectory, and (c) job characteristics. Demographics are included as controls. Model 1 focused on Asian-non-US citizens and explained about 22% of variance in job satisfaction. Model 2, which included the other-non-US-citizen group,

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explained 25% of the variance, the highest of all groups. Model 3 focused on Asian-US citizens and explained 21.6% of the variance in job satisfaction. Lastly, model 4 with faculty members belonging to non-Asian-US-citizen group explained the least variation in job satisfaction (16.7%).

5.3.1. Job satisfaction and research productivity

As seen in **Table 3**, the annual number of articles published has a positive and significant impact on the satisfaction of faculty members belonging to all groups, except other-non-US citizens. Interestingly, presentations made at conferences lowered the satisfaction of Asian-non-US citizens, a finding that was different for Asian-US citizens and other-US-citizen groups. Conference presentations, although an important part of scholarly life, can take time away from faculty members' work and time spent on research. Except Asian-US citizens, all other groups of faculty members experienced positive satisfaction when named as a patent inventor. All groups of scientists and engineers reported higher satisfaction when awarded a federal grant. Grant activity is an integral part of faculty members working in science and engineering disciplines. Being awarded a federal grant not only enhances the visibility of the individual scholar but also the department and ultimately the institution.

5.3.2. Job satisfaction and career trajectory and job characteristics

Furthermore, as seen in **Table 3**, Asian-non-US citizens in assistant, associate, and instructor/lecturer positions express higher levels of satisfaction than full professors. Contrary to popular literature [52], both groups of non-US-citizen faculty members in part-time (instructor/lecturer) positions express greater satisfaction with their jobs. Higher satisfaction is reported among part-time faculty members since these faculty members choose not to be on tenure-track positions and are content with their decision, possibly engaged in activities they enjoy the most—teaching and administration [53]. Full-professor position results in the greatest satisfaction among Asian-US citizens and other-US-citizen groups. All but other-non-US-citizen groups of scientists reported higher satisfaction with more experience.

For all groups, except other non-US citizens, greater time spent on teaching-related activities resulted in lower job satisfaction. As faculty members spend more time on teaching, it takes time away from research, thus lowering their job satisfaction. The results confirm past findings [37, 54]. Asian-non-US citizens, employed at doctoral and comprehensive[2] universities, express greater satisfaction that those at research universities. Faculty members not working in research universities might experience a greater balance between research and teaching, thus leading to higher job satisfaction [55, 56]. However, faculty members across all

[2]For a detailed classification of the new Carnegie codes, refer to the website: http://carnegieclassifications.iu.edu/classification_descriptions/basic.php.
The 2006 classification includes (1) Doctoral Granting Universities that further are classified into RU/VH, Research Universities (very high research activity); RU/H, Research Universities (high research activity); and DRU, Doctoral/Research Universities. (2) Master's Colleges and Universities: Master's/L, Master's Colleges and Universities (larger programs); Master's/M, Master's Colleges and Universities (medium programs); and Master's/S, Master's Colleges and Universities (smaller programs). (3) Baccalaureate Colleges: Bac/A&S, Baccalaureate Colleges, Arts and Sciences; Bac/Diverse, Baccalaureate Colleges, Diverse Fields; and Bac/Assoc, Baccalaureate/Associate's Colleges. (4) Associate's Colleges have 14 different subclassifications of all colleges offering two-year degrees. (5) Special Focus Institutions. (6) Tribal colleges.

four groups employed at liberal arts colleges[3], where teaching is greatly emphasized, reported lower job satisfaction than faculty members in research universities.

Asian-non-US citizens employed in engineering and computer science disciplines experience greater satisfaction than faculty members employed in biology. The results are in stark contrast to other-US-citizen and non-US-citizen groups. The findings are interesting and suggest that satisfaction is in part a measure of similar groups working together. Given that one-third of Asian-non-US citizens are employed in these disciplines (computer science and engineering), scientists belonging to this group might experience a sense of belongingness, which serves as an intrinsic motivator, further enhancing satisfaction at work [57].

5.3.3. Job satisfaction and demographics

Male faculty members are significantly less satisfied than female faculty members in both noncitizen groups (Asian-non-US-citizen and other-non-US-citizen groups) (see **Table 3**). The findings of this study differ from several studies that have indicated female faculty members in S&E intend to quit as a result of lower job satisfaction [32, 33, 37, 38, 58, 59]. Past studies also indicate that male faculty members derive greater satisfaction from the amount of financial support they receive for their research in comparison with female faculty members who get satisfaction from peer support. Although this study does not report satisfaction with various aspects of work by gender, the findings in the literature are interesting, suggesting that women seek supportive work environments leading to higher intrinsic satisfaction [28].

Marriage lowered the job satisfaction among Asian and other non-US-citizen groups when compared with citizen groups. Although several studies have shown the positive impact of marriage on job satisfaction, a few have suggested that marriage can negatively impact satisfaction. This is especially true in the case of female faculty members who are constantly faced by the challenges of balancing career and family. Women married with children are often forced into juggling two separate lives, hence putting them at a disadvantage in their professional careers [60, 61]. However, scientists belonging to citizen groups (Asian and non-Asian), who are unmarried, report lower satisfaction than their married counterparts. One possible explanation for opposite findings for US-citizen and non-US-citizen groups is that marriage is related to the age of faculty members [62]. Asian-non-US citizens and other-noncitizen scientists are typically younger and on tenure-track positions but not tenured. The demands to achieve tenure along with family responsibilities might result in lower job satisfaction among married non-US-citizen groups of scientists. However, the opposite is true for US-citizen groups.

Asian-non-US-citizen and other-non-US-citizen faculty members employed in the Pacific region of the United States report higher job satisfaction. Location did not impact the satisfaction of Asian-US-citizen and other-US-citizen groups. The Pacific region, according to the 2000 Census Bureau[4], is the most ethnically diverse region in the country, with less than 60%

[3]Liberal arts: These institutions are primarily undergraduate colleges with major emphasis on baccalaureate programs. For more information, see http://carnegieclassifications.iu.edu/downloads/2000_edition_data_printable.pdf.
[4]See US Census for more details: http://www.census.gov/quickfacts/table/PST045215/06,00.

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of the population being White alone. This confirms the results from previous studies, which suggest that minorities employed in ethnically diverse regions are likely to express greater job satisfaction as compared with faculty members employed in less diverse parts of the country [44, 51]. Further, Asian-non-US citizen and Asian-US citizens with lower English language skills report negative job satisfaction, a finding that supports previous work by [63].

6. Conclusion

This study compared the job satisfaction of four groups of scientists employed at research universities in the United States. With high proportion of S&E Asian immigrant faculty members (US citizens and non-US citizens) employed in the American academy, the study focused on comparing the job satisfaction of Asian-non-US-citizens to other non-US-citizen groups and Asian-US citizens to other-US citizens. Comparing the career trajectories, research productivity, and job satisfaction of these groups helped debunk the "model minority" myth. While Asian-US citizens can be considered a "model minority" when comparing research productivity with all groups of scientists, they are far from being problem-free and without encountering challenges. Both Asian groups (US citizens and non-US citizens) express lower degrees of overall job satisfaction, benefits, level of responsibility, salary, intellectual challenge, and degree of independence than other-US-citizen and non-US-citizen faculty members. Though Asian-US citizens are the most productive, they are less likely to be in leadership roles, a finding that requires further investigation. Further, the lower job satisfaction reported among Asian-non-US citizens is concerning given that satisfaction impacts retention rates [30, 31, 64]. These faculty members play an important role in the scientific, technological, and economic growth of the United States.

According to [8], the percentage of doctorate recipients from Asian countries such as China, India and South Korea, and Taiwan are on temporary visas but have hopes and plans to stay in the United States. Their numbers have decreased to an average of 9 percentage points between 2005 and 2009 for those with definite plans to stay in the United States [8]. Losing them in the form of reverse migration can add to the challenges faced by the scientific enterprise in the United States. The cost of replacing these faculty members could be enormous considering that institutions at a typical research university invest anywhere from $300,000 to $500,000 in start-up costs for an assistant professor and well over a million dollars to attract and retain senior faculty members [65]. The results of this research might aid university administrators to rethink their diversity programs. In addition to increasing the numbers of Asian prospective doctorates, there is a need to understand their behavior, their level of uncertainty and attitudes, as well as the difference of satisfaction when looking at those who are US citizens and are of Asian descent (race). This study is a step in that direction.

We argue that further research between US scientists and Asian-non-US-citizen scientists would be helpful in determining the importance of this group. Current data lacks variables on collaboration, environmental factors such as collegial relationships, work environment, and peer and student interactions, which impact faculty members' job satisfaction [34]. Future studies should include these variables for a better comprehension of the issues. Additionally, official

statistics should determine Asian faculty members by their country of origin. This would provide a further understanding of the career trajectories and satisfaction of this important group and perhaps clarify the myth of the "model minority," something we attempted to do.

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Chapter 11

Why Do Immigrants to Norway Leave the Country or Move Domestically? Some Important Facts

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Additional information is available at the end of the chapter

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Abstract

We consider immigrants living in Norway and their behavior with respect to mobility. Using cross-sectional data, we employ a trinomial logit model. An immigrant may (i) move to another centrality level, (ii) emigrate, or (iii) stay at the same centrality level as in the previous period. We carry out separate estimations for eight different groups, brought about combining four centrality levels with two genders. To assess the effect of different explanatory variables related to (i) duration of residence in Norway, (ii) labor market status, (iii) reason for immigration, (iv) the extent of education and (v) family size and composition, we calculate marginal effects. In line with earlier results, we obtain that longer duration of residence tends to decrease the probability of emigration and that immigrants who have stated escape as the reason for immigration to Norway tends to have lower probabilities for emigration than those who have stated work as the reason.

Keywords: Norway, immigrants, immigration, internal/domestic migration, emigration, importance of education, labor force participation, duration of residence, family

1. Introduction

With a demographic development that provides perspectives on future labor shortages in the entire European Economic Area, the ability to retain migrant labor in general and highly qualified migrant labor in particular, could prove to be of key importance for a country. In 2013, about 24,000 former immigrants left Norway. Emigration from Norway has increased over time as more immigrants have entered the country, but there are large fluctuations from year to year. It is therefore natural to ask what drives emigration from Norway and whom do we "loose"?

In this article, we look at different patterns of movements of immigrants and how they vary because of factors such as the degree of rurality (we call it "centrality levels" which are explained in Section 3), duration of residence in Norway, immigrants' education level, immigrants' labor force participation as a measure of the degree of integration, as well as family size and family composition. We try to answer important issues such as: What drives the exodus of immigrants from Norway? Which groups of immigrants emigrate? Are they immigrants that are well integrated into society, as measured by labor force participation and educational enrollment, or are they the least integrated ones? What is the impact of having family in Norway? In addition, we investigate at what extent differences in centrality can explain variation in emigration from different parts of Norway and the likelihood of alternatively remaining in a region or to move to another region in Norway.

As opposed to other studies that analyze emigration among immigrants, we not only focus on emigration but also consider the alternative of moving within the country, to another centrality level (see definition in Section 3). In Norway, refugees are placed across the country in order to obtain a balanced regional settlement pattern. In principle, however, they are free to move to another location and after some time in the country, many immigrants seem to do that. Thus, in this study we estimate multinomial (i.e., trinomial) logit models for the probabilities of (i) internal migration, (ii) emigration and (iii) remaining at the same centrality level using data for immigrants in Norway. Estimation is done separately for eight different groups, brought about by combining four centrality levels with two sexes.

As a basis for the analysis, we use individual-based registry data for population, migration, education and employment for all immigrants. The estimations are concentrated on Immigrants' adjustments from 2012 to 2013. There is one record for each of the observational units. The data are cross-sectional data with all the observed characteristics of individuals taken from the year 2012, while the outcome of the settlement, internal migration and emigration is measured for the year 2013.

We find that the probabilities for emigration and domestic migration decrease when the duration of residence increases. These results are rather robust across centrality levels and sexes.

With respect to labor market status, we find that being employed or combining work and education contributes to a lower probability of emigration and an increased probability of remaining at the same centrality level.

Internal migration among immigrants draws in centralizing direction, especially among refugees, while immigrants from the more central regions are more inclined to emigrate.

This paper is organized as follows: In Section 2, we take a closer look at some of the earlier literature. In Section 3, we define different concepts and variables and elaborate on the institutional setting. Section 4 presents the trinomial logit model and the calculation of the marginal effects. The empirical results are provided in Section 5 and some conclusions are drawn in Section 6.

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2. Earlier studies on emigration among immigrants

A comprehensive study addressing return migration to countries within the OECD area has been carried out by Dumont and Spielvogel [1]. According to the definition of the United Nations Statistics Division, return migrants are "persons returning to their country of citizenship after having been international migrants (whether short-term or long-term) in another country and who are intending to stay in their own country for at least a year." The study finds that the return rate is highest in the years immediately following the immigrants' entry to the host country, between 20 and 50% of the immigrants emigrate within a period of 5 years. This percentage varies with the time periods considered and with the characteristics of the host country. The rate of emigration is higher from some European countries than from countries such as Canada, New Zealand and the USA. The study also emphasizes that sex has small impact on the return migration, but age is of importance. There is a u-shaped relationship between return emigration and age and education. Young immigrants and immigrants who approach the pension age have, in other words, a higher probability to emigrate than immigrants of the middle age. Furthermore, not surprisingly the study also finds that there is higher mobility among countries that are at the same level of economic development. The return rates to OECD countries are usually double as high as to developing countries. Many countries run different programs aiming at promoting voluntarily return, but Dumont and Spielvogel [1] state that these arrangements seem to have limited influence on the total level of return migration. Whether this feature is due to the low impact of the arrangements or whether the arrangements only are directed at a limited number of immigrants is not clear. For most of the immigrants, return migration is only an option if the political, social and economic conditions in the origin country have become more satisfactory than what they were initially, see [1]. Furthermore, the study lists four main reasons for return migration:

- Weak integration into the host country
- Close attachment to the country of origin
- Return after accumulation of financial resources (achievement of a savings objective)
- Improved/new employment possibilities in the country of origin following work experience in the host country.

Even though Norway possesses very good (registry) data on migration, there have been very few newer studies on emigration among immigrants using Norwegian data. Four studies that go beyond a descriptive study using inter alia two-way tables and graphs are the work by [2–5]. Carling and Pettersen [2] study the relationship between intentions of return migration in the future and what they refer to as the integration-transnationalism (IT) matrix of return migration. According to this approach, return migration depends on both the immigrants' integration in the host country and their attachment to the country of origin and it is the relative strength of these two effects that is decisive for the level of the return migration. If one either scores low or high on both these measures, they tend to cancel each other out.

Longva [5] studies the relationship between labor market attachment and (inter alia) emigration among immigrants in Norway and its implications for labor market assimilation analyses. Attachment to work, as measured by the level of the wage earnings, impacts emigration through two different channels. The first one is that economic success may inspire or be a requirement for emigration. The second is that a certain income is forgone if one leaves Norway.

The analysis by Longva [5] is based on two datasets that vary with respect to information about the duration of residence. In the analysis that accounts for the duration of residence in Norway, Longva [5] finds a strong positive effect on emigration of being in the upper income quartile. This is true for individuals who arrived from an OECD country or from another country. The same conclusion is drawn for OECD citizens in the other dataset with no information on the duration of residence, while the results for other immigrants are not clear cut. These results do not agree with those found for Swedish data by Edin et al. [6], where there is a negative relationship between the probability of emigration and the wage earnings of the individual.

The study by Pedersen et al. [4] differs from those mentioned above in that it is a comparative study in which one compares emigration from Denmark, Norway and Sweden, respectively. The study partly focuses on return migration and partly on emigration among all individuals residing in a country, but in the following we concentrate on its findings for return migration. The main focus in the study is whether it is the resourceful or individuals with few resources that emigrate from the Nordic countries (brain gain or drain) and whether systematic change has taken place over time. The study is based on registry data for 1981, 1989 (1991 for Norway) and 1998 for each of the three Scandinavian countries. The study concludes that there is no clear relationship between return migration and income and educational level in any of the Scandinavian countries.

Ekhaugen [3] focuses on the so-called welfare assimilation among immigrants in Norway, that is, how the probability for being on (economic) welfare varies with the duration of residence in Norway. Thus, this study does not aim at studying emigration of immigrants. However, modeling of emigration is needed for a proper analysis of welfare assimilation, as it captures an important control. According to the model specifications, the immigrant can choose between the three states (i) receiving welfare, (ii) emigration and (iii) none of what is mentioned under (i) or (ii). Utilizing registry data for the years 1992–2000, Ekhaugen [3] estimates the transitions between the three states. By estimating transitions, it is possible to determine the effect of receiving welfare on the probability of emigrating during the next period. The results do not entirely support the hypothesis that receiving welfare reduces the probability rate of emigrating from Norway during the subsequent period as the estimate is not significant at the 5% test level.

3. Institutional setting and definition of different concepts

An immigrant is defined by Statistics Norway as a person who has immigrated to Norway and has been registered as living here and as someone who is born abroad with two foreign-

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born parents and four foreign-born grandparents. To be registered as a resident in Norway, one must generally have the intention to stay in Norway for at least 6 months and have acquired legal residence permit of the country. This means that seasonal workers and other people staying short term in Norway are not included. The same is the case for asylum seekers waiting to have their cases processed. It is also true that not all who have immigrated to Norway are regarded as immigrants. People who are born in Norway, but who have lived for some time abroad and then moved back, are not counted as immigrants in Norway. The same applies to people born abroad to Norwegian-born parents and/or have Norwegian-born grandparents. In this analysis, we investigate emigration in general (not only return migration) and mobility of first-generation immigrants and thus do not include their Norwegian-born children. Refugees are classified as immigrants and included in the analysis.

In the empirical analysis, it is being assumed that immigrants can move to another country or another centrality within Norway. We group municipalities according to centrality levels and distinguish between four different levels, that is, the time of travelling from the main cities/regional centers. The most central municipalities are allocated to centrality level 4 (until 75 min of travelling time to main cities, or 90 min to the capital of Oslo), the somewhat central municipalities are in centrality level 3 (until 60 min of travelling time to main regional centers), the less central municipalities are in centrality level 2 (until 45 min of travelling time to regional centers) and the remaining least central municipalities are in centrality level 1. The reason we do not only focus on emigration to another country is that the likelihood of moving inside Norway (internal migration) or remaining settled in a region constitutes alternatives to emigration. High tendency to move domestically can be expected to curb the emigration that could otherwise have taken place. Refugees are, for example, placed regionally by the authorities after they have received a residence permit. The allocation of refugees to different regions takes account of the need for maintaining a balanced regional settlement pattern. Moving between centrality levels in Norway may thus emerge as an alternative to emigration. Generally, the settlement pattern of immigrants is more centralized than what is the case for the rest of the population.

In the specification of the empirical model, we apply the following information: We have information on where the immigrants reside at the end of 2012. At the end of the subsequent year, 2013, we consider three possibilities: (i) the individual may still live at the same centrality level, (ii) the individual may have moved to another centrality level and (iii) the individual has emigrated. These will be the three states of choice in our trinomial logit models. An emigration is a registered migration from Norway to another country of a person who has been registered as a resident in Norway. The person can either have notified emigration or have been administratively emigrated by the Norwegian Tax Administration. There is no distinction between temporary versus permanent emigration. Not everyone who moves abroad is to be registered as having emigrated—it may include diplomats, people who still have a place of residence in Norway and have working ties to and/or students from Norway who are studying at foreign universities. These people are not considered as having emigrated in our analysis.

Table 6 in Appendix provides an overview and definition of the observed variables employed in the analysis. To account for the effect of age, we include a second-order polynomial represented

by AGE_i and $(AGE_i/10)^2$. To capture integration effects, we construct four different dummy variables according to the duration of stay in Norway ($DRT02_i$, $DRT35_i$, $DRT610_i$ and $DRT1115_i$). To consider the impact of education ($DEDU1_i$–$DEDU5_i$), we have used the codes from the Norwegian Standard Classification of Education and aggregated with five levels of education for immigrants plus a group of unspecified education. These are as follows: (i) immigrants with only primary education, (ii) immigrants with some secondary education, (iii) immigrants with completed secondary education, (iv) immigrants with 1–4 years of higher education, (v) immigrants with 5 years and longer higher education and finally (vi)—the reference category—immigrants with no or unspecified education.

Immigrants are also grouped according to their labor market status ($DLMSj_i$, $j = 1,\ldots,4$). We distinguish between (i) employed immigrants, (ii) immigrants who combine employment with education, (iii) immigrants who are enrolled in full-time education, (iv) unemployed individuals and (v)—the reference category—individuals who are not in the workforce and not in the educational system. Employed immigrants are defined as immigrants in employment in November 2012 with an occupational status codes as wage earner or self-employed in the regional employment statistics. Persons with multiple types of employment are defined on the basis of the most important of the working conditions. Employed immigrants who, to a large extent, have been enrolled in education during the calendar year are classified in category (ii) above. We have defined immigrants involved with full-time education as anyone who has undergone training on 1 October 2012 or have taken an examination during the same year. Immigrants undergoing training who are also registered as unemployed during the year are classified as unemployed if the unemployment has lasted for 7 months or longer during the same year.

An unemployed individual is anyone who is registered in the unemployment registry at the Norwegian Labour and Welfare Administration with at least 1 month unemployment during the calendar year. Unemployed immigrants who have also been employed during the calendar year are classified as unemployed if the circumstance has lasted 7 months or longer during the same calendar year. Similarly, unemployed who have undergone training during the calendar year are classified as unemployed if this circumstance has lasted for 7 months or longer during the same calendar year.

Individuals not in the labor force in general are defined as all persons who cannot be placed into any of the status groups described above. The labor force consists of employed and unemployed persons. Persons involved in education are also to be found outside the labor force, but they are defined as a separate group, that is, persons undergoing training.

The analysis also assumes that immigrants' stated reasons for immigration ($DRWORK_i$, $DRESCAPE_i$, $DRFAMILY_i$, $DREDUCATION_i$ and $DRUNK_i$) affects their migration patterns. For immigrants outside the Nordic countries, we distinguish between (i) work, (ii) escape, (iii) family, (iv) education and (v) unspecified reason. Immigrants from the Nordic countries do not report their reason for immigration and are allocated to their own group. The reasons for immigration are registered from 1990 on.

The data also provide information about the number of members in the family of the immigrant ($FAMTOT_i$) and the composition of the family with respect to immigration status

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($FAMIMM_i$). For instance, all in a family may be immigrants, or a family may consist partly of immigrants and partly of individuals born in Norway.

4. The trinomial logit model of internal migration, emigration and continued stay at the same centrality level

The individual may choose between three alternatives (relating to their ability to move): (i) internal migration, (ii) emigration and (iii) staying at the same centrality level. Consider the dummy variable Y_{1i} (**Table 6** in Appendix). It takes on the value 1 if the individual migrates from one centrality level in Norway to another centrality level in Norway and the value 0 if the immigrant stays at the same centrality level. Next, we have the dummy variable Y_{2i}. This variable takes on the value 1 if the individual emigrates and otherwise the value 0. The probability of these two binary variables being equal to 1 is given by

$$P(Y_{ij} = 1) = \frac{\exp(Z_i \beta^j)}{1 + \exp(Z_i \beta^1) + \exp(Z_i \beta^2)}, \quad j = 1, 2. \tag{1}$$

If we let $Y_{i0} = 1 - Y_{1i} - Y_{2i}$, it follows that the probability of not moving is given by

$$P(Y_{i0} = 1) = \frac{1}{1 + \exp(Z_i \beta^1) + \exp(Z_i \beta^2)}, \tag{2}$$

where Z_i denotes a row vector with explanatory variables (cf. the variables listed in **Table 6** in Appendix) and β^1 and β^2 are two column vectors with unknown parameters.

Using these equations, we can specify the log-likelihood function and estimate the unknown parameters by the maximum-likelihood procedure.[1] Having estimated these, one may predict the various probabilities by using Eqs. (1) and (2) where the unknown parameters are substituted by their corresponding estimates. In what follows, let «ˆ» denote estimated parameters and predicted probabilities.

We are interested in how a change in one of the explanatory variables affects the three predicted probabilities (i.e., marginal effects) of a particular individual and show by an example, related to the duration of residence, how this can be done. The reference group is assumed to be immigrants with very long duration of residence, that is, more than 16 years. They are picked up by the intercept. Let us introduce the notation

$$Z_i \hat{\beta}^j = \hat{\beta}_1^j + X_i \hat{\phi}^j + \hat{\beta}_5^j DRT02_i, \quad j = 1, 2. \tag{3}$$

Here,

$$Z_i = [1 \quad X_i \quad DRT02_i], \tag{4}$$

and

$$\hat{\beta}^j = [\hat{\beta}_1^j \quad (\hat{\varphi}^j)' \quad \hat{\beta}_5^j]'. \tag{5}$$

[1]For the trinomial logit model and its estimation cf. [7].

The variable $DRT02_i$ is a binary variable that takes on the value 1 if individual *i* has a duration of residence of between 0 and 2 years and 0 otherwise, while the row vector X_i, contains the other explanatory variables. If we insert from Eq. (3) into Eqs. (1) and (2), we obtain

$$\hat{P}(Y_{i1} = 1) = \frac{\exp(\hat{\beta}_1^j + X_i\hat{\varphi}^j + \hat{\beta}_5^j DRT02_i)}{1 + \exp(\hat{\beta}_1^1 + X_i\hat{\varphi}^1 + \hat{\beta}_5^1 DRT02_i) + \exp(\hat{\beta}_1^2 + X_i\hat{\varphi}^2 + \hat{\beta}_5^2 DRT02_i)}, \quad j = 1, 2, \tag{6}$$

$$\hat{P}(Y_{i0} = 1) = \frac{1}{1 + \exp(\hat{\beta}_1^1 + X_i\hat{\varphi}^1 + \hat{\beta}_5^1 DRT02_i) + \exp(\hat{\beta}_1^2 + X_i\hat{\varphi}^2 + \hat{\beta}_5^2 DRT02_i)}. \tag{7}$$

We compare two individuals who have the same value on all explanatory variables except those related to the duration of residence in Norway. One of the individuals has a residence time in Norway of between 0 and 2 years, whereas the reference immigrant has a time of residence that is 16 years or more. We denote these two individuals, respectively, as i_2 and i_1 and obtain

$$\hat{P}(Y_{i_2 j} = 1) - \hat{P}(Y_{i_1 j} = 1) = \frac{\exp(\hat{\beta}_1^j + X_i\hat{\varphi}^j + \hat{\beta}_5^j)}{1 + \exp(\hat{\beta}_1^1 + X_i\hat{\varphi}^1 + \hat{\beta}_5^1) + \exp(\hat{\beta}_1^2 + X_i\hat{\varphi}^2 + \hat{\beta}_5^2)} - \frac{\exp(\hat{\beta}_1^j + X_i\hat{\varphi}^j)}{1 + \exp(\hat{\beta}_1^1 + X_i\hat{\varphi}^1) + \exp(\hat{\beta}_1^2 + X_i\hat{\varphi}^2)}, \quad j = 1, 2, \tag{8}$$

$$\hat{P}(Y_{i_2 0} = 1) - \hat{P}(Y_{i_1 0} = 1) = \frac{1}{1 + \exp(\hat{\beta}_1^1 + X_i\hat{\varphi}^1 + \hat{\beta}_5^1) + \exp(\hat{\beta}_1^2 + X_i\hat{\varphi}^2 + \hat{\beta}_5^2)} - \frac{1}{1 + \exp(\hat{\beta}_1^1 + X_i\hat{\varphi}^1) + \exp(\hat{\beta}_1^2 + X_i\hat{\varphi}^2)}. \tag{9}$$

In Eqs. (8) and (9), we have $X_{i_1} = X_{i_2} = X_i$. Furthermore, note that we have

$$\sum_{j=0}^{2}\left[\hat{P}(Y_{i_2 j} = 1) - \hat{P}(Y_{i_1 j} = 1)\right] = 0. \tag{10}$$

Formulae constructed in the same type of line can certainly also be used to calculate the effects of partial changes in other explanatory variables than those related to the duration of residence. In fact, this is what we have done for constructing the different tables. The formulae are slightly modified when we consider changes in counting variables. When looking at formulae (8) and (9), we note that the parameter estimates enter both the nominator and the denominator. Since it is relevant to reveal whether the estimated differences are significant or not, we utilize the delta method to obtain estimated standard errors, cf. [8].

5. Empirical results

In the following, we report the results for eight groups. To save space, we do this in an asymmetrical way. Women in centrality level 1 constitute Group I, which is the reference group. The estimates of the parameters of the trinomial logit model of group 1 are given in **Table 7** in Appendix. Since the parameters in this model are not suitable to interpret, we instead consider the so-called marginal effects, cf. Eqs. (8) and (9). Altogether, there are five tables with

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such marginal effects for Group I. **Table 1** relates to the duration of residence time in Norway, **Table 2** relates to labor market status, **Table 3** considers reasons to immigration to Norway, **Table 4** investigates at the duration of education and **Table 5** considers family size and composition. For the other seven groups, we report results in a qualitative manner. Groups II–IV consist of female immigrants living at centrality levels 2–4, respectively. Groups V–VIII consist of male immigrants living at centrality levels 1–4, respectively. The results for these seven groups are presented in **Table 8** in Appendix. For these groups, we focus on whether the same sign of the estimated differences in probabilities as for Group I can be obtained and whether the estimates significant.

5.1. Duration of residence: empirical results for Group I

We start with the duration of residence. Looking at **Table 1**, first line: If one compares a woman with the shortest time of residence, that is 0–2 years, with a woman with a duration of residence that is 16 years or more, the former woman has a significantly lower estimated probability for staying at the same centrality level and a higher estimated probability for emigration. The estimate of the difference in the probability of internal migration is positive, but not statistically significant at the 5% level.

The results for individuals with time of residence of 3–5 years, 6–10 years and 11–15 years resemble those of the group with the shortest time of residence, but the differences are somewhat smaller in absolute terms. Only the estimated difference in probability of emigration remains significant for these three groups.

5.2. Duration of residence: empirical results for Groups II–VIII

Recall that Groups II–IV (**Table 8** in Appendix) consist of female immigrants living at centrality levels 2–4, respectively, while Groups V–VIII consist of male immigrants living at

	No migration		**Internal migration**		**Emigration**	
Difference in probability	**Estimate**	***t*-Value**	**Estimate**	***t*-Value**	**Estimate**	***t*-Value**
For woman with between 0 and 2 years of residence	−0.013	−2.932	0.006	1.516	0.008	2.842
For woman with between 3 and 5 years of residence	−0.008	−1.867	0.001	0.284	0.007	2.769
For woman with between 6 and 10 years of residence	−0.006	−1.524	0.004	0.987	0.002	2.158
For woman with between 11 and 15 years of residence	−0.002	−0.557	−0.000	−0.081	0.002	2.050

Note: *T*-values obtained by using the delta method. Assumptions with respect to other variables than the duration of residence: The individual is a woman aged 30 years who resides at centrality level 1. She is at work and has some secondary education. Her stated reason for immigration is work. She is a member of a family consisting of five persons, whereof four are immigrants.

Table 1. Estimated differences in probability of the three alternatives of mobility for different groups of women according to the duration of residence in Norway relative to the group with at least 16 years of residence.

centrality levels 1–4, respectively. Recall also that we in **Table 8** in Appendix only focus on whether the same sign of the estimated differences in probabilities as for Group I can be obtained and whether the estimates are significant, as indicated by the capital letters A, B and C, cf. the notes to the table. From the first block of cells in **Table 8** in Appendix, we note that many of the results obtained for Group I are also found for the other groups, indicated by the As and Bs. As can be seen from the second line in the first block of results, the estimated difference in probability of domestic migration for female immigrants at centrality level 3 is opposite compared to what was found for female immigrants living at centrality level 1. However, both for female immigrants in the benchmark group and for female immigrants living at centrality level 3, the estimate of the difference in probability is not statistically significant different from zero. For those with the next longest time of residence, there are somewhat different results compared to the benchmark group, that is, Group I. For female immigrants living at the centrality levels 2–4, an estimate of the difference in probability of domestic migration that goes in the opposite direction could be obtained. However, only at centrality level 4 a significant result is obtained.

5.3. Labor market status: empirical results for Group I

Considering the effect of changes in the labor market status, the reference group is made up by female immigrants who are neither working nor being enrolled in education. We find that women who are working have a significantly higher probability rate of staying in the same centrality level and significantly lower probability rate of internal migration and emigration than individuals who are neither in the work force nor enrolled in education. Women who combine work and education display a higher probability rate for staying at the same centrality level and a lower probability of emigration than the group of individuals not in the work force and not enrolled in education. With respect to the probability of internal migration, an insignificant estimate of the difference in probability is obtained.

The next group we consider is the one who contains immigrants who are enrolled in full-time education. This group has no significant estimates of the differences. Finally, we find that

	No migration		**Internal migration**		**Emigration**	
Difference in probability	**Estimate**	***t*-Value**	**Estimate**	***t*-Value**	**Estimate**	***t*-Value**
For woman at work	0.034	4.009	−0.015	−2.701	−0.019	−2.838
For woman who combines work and education	0.018	2.256	−0.000	−0.048	−0.018	−2.713
For woman enrolled in education	−0.003	−0.357	0.009	1.559	−0.006	−1.188
For woman who is unemployed	0.016	2.131	−0.002	−0.495	−0.014	−2.367

Note: *T*-values obtained by using the delta method. Assumptions with respect to other variables than labor market status: The individual is a woman aged 30 years who resides at centrality level 1. She has some secondary education and a duration of residence between 3 and 5 years. Her stated reason for immigration is work. She belongs to a family with five persons, whereof four are immigrants.

Table 2. Estimated differences in probability of the three alternatives of mobility for different groups of women according to labor market status relative to the group that is neither in the workforce nor being occupied with education.

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unemployed female immigrants have generally a significant lower estimated probability of emigration and a significant higher probability rate of staying at the same centrality level than women not in the workforce and/or not in the educational system. The estimated probability of internal migration does not differ significantly between unemployed female immigrants and female immigrants outside the work force and the educational system.

5.4. Labor market status: empirical results for Groups II–VIII

For all the groups, the results are very similar for those that are at work (**Table 8** in Appendix). For the other labor market statuses, the variation is evident. For immigrants who combine work and education, the conclusion with respect to internal migration differs somewhat across the different groups. In two of the groups, that is, for female immigrants at centrality level 3 and male immigrants at centrality level 1, the results are opposite to what was found for female immigrants at centrality level 1. For female immigrants at centrality level 1, a negative estimate of the difference is obtained. For Groups II and IV, the probability rate of domestic migration is significantly higher than for immigrant women who neither are at work nor are enrolled in education. Female immigrants who are occupied with education on a full-time basis demonstrate a notable difference. It is particularly related to the probability of remaining at the same centrality level. Immigrant women in the benchmark group demonstrated a significant lower estimated probability of remaining at the same centrality level than female immigrants who are neither in the workforce nor in the educational system. Female immigrants occupied with education at centrality levels 3 and 4 revealed that the estimate of the probability of remaining at the same centrality level is significantly higher than for female immigrants outside the workforce and outside the educational system. Lastly, for immigrants who are unemployed, some discrepancies between the results for Group I and the others in relation to the probability of domestic migration could be established. For female immigrants in Group I, a negative but insignificant estimate of the difference in probability of domestic migration was found. For immigrants that are living at centrality level 4, the estimated probability of domestic migration is significantly higher for the unemployed immigrants than for immigrants in the reference group. In some of the groups, the estimate of the difference in probability is positive but insignificant.

5.5. Reasons for immigration: empirical results for Group I

5.5.1. Work

In **Table 3**, we report results relating to how reasons to immigrate impact the probability of making any of the three choices. Immigrants from the Nordic countries are the reference group. The first line of figures in **Table 3** relates to women that provide work as their reason for immigration. With respect to estimated probabilities of internal migration, there is no significant difference between this group of women and female immigrants from the Nordic countries. Women with work as the stated reason for immigration have significantly lower estimated probability for emigration and significantly higher estimated probability of staying at the same centrality level than women from the Nordic countries.

5.5.2. Escape

The next group we consider contains those that have stated escape as the reason for immigration. According to the results reported in **Table 3**, line 2, women who provided escape as the reason for immigration have significantly lower estimated probability for emigration than female immigrants from the Nordic countries. Furthermore, these women have a higher estimated probability for internal migration than female immigrants from the Nordic countries. With respect to the probability of staying at the same centrality level, an insignificant estimate of the difference of probability is obtained.

5.5.3. Family

We proceed with the group that has stated family as the reason for immigration. The relevant results are reported in line 3, **Table 3**. We find that women, who specified family as reason for immigration, have a significant lower estimated probability of emigration than female immigrants from the Nordic countries. With respect to the probability of staying at the same centrality level, these women have a significant higher estimated probability than female immigrants born in the Nordic countries. With respect to internal migration, no significant difference of probability is obtained.

5.5.4. Education

The next group we consider consists of individuals who have stated education as reason for immigration. For none of the three choices we are able to find any significant differences in

	No migration		Internal migration		Emigration	
Difference in probability	Estimate	*t*-Value	Estimate	*t*-Value	Estimate	*t*-Value
For woman with work as reason for immigration	0.036	3.204	−0.001	−0.454	−0.035	−3.146
For woman with escape as reason for immigration	−0.004	−0.200	0.043	3.274	−0.040	−3.138
For woman with family as reason for immigration	0.032	2.736	0.003	1.071	−0.035	−3.099
For woman with education as reason for immigration	0.004	0.434	0.008	1.341	−0.012	−1.754
For woman outside the Nordic countries with unspecified reason for immigration	0.013	1.112	0.012	1.612	−0.024	−2.686

Note: *T*-values obtained by using the delta method. Assumptions with respect to other variables than the reason for immigration: The individual is a woman aged 30 years who resides at centrality level 1. She has some secondary education, a duration of residence between 3 and 5 years and is at work. She belongs to a family consisting of five persons, whereof four are immigrants.

Table 3. Estimated differences in probability of the three alternatives of mobility for different groups of women according to reason for immigration relative to female immigrants from the Nordic countries.

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estimated probability between female immigrants with education as reason for immigration and female immigrants from the Nordic countries.

5.5.5. No reason stated

The last group we look at consists of female immigrants from outside the Nordic area who have not stated any reason for immigration. This group of women has a lower estimated probability of emigration than female immigrants from the Nordic countries. For the two other states, there are no significant estimated differences.

5.6. Reasons for immigration: empirical results for Groups II–VIII

When it comes to reasons to immigrate, the results are different for different groups. For female immigrants with work as reason for immigration to Norway, the results are rather equal to those obtained for females at centrality level 1 who constitute Group I. The results for male immigrants living at centrality level 2 (cf. Group VI) differ slightly from those obtained for female immigrants living at centrality level 1. For internal migration, the estimated difference in probability for male immigrants living at this centrality level and men from the Nordic countries is positive and significant. Also, when escape is the reason for immigration to Norway there are some noticeable differences. For immigrant women at centrality level 1 with escape as reason to immigrate, we found no significant difference in the estimated probability of staying at the same centrality level compared to female immigrants from the Nordic countries. For both sexes living at centrality level 4, we find that the estimated probability of staying at the same centrality level is significantly higher for those with escape as reason for immigration than for immigrants from the Nordic countries. For immigrants stating family as reason for immigration, there are some instances of switches of sign, but in none of these cases the estimates are significant. For female immigrants living at centrality levels 2 and 3, the difference in probability of domestic migration is negative, whereas it was positive for female immigrants living at centrality level 1. In all three cases, the estimates are insignificant. There are some differences for those with education as reason for immigration, in particular for men. Male immigrants living at centrality levels 3 and 4 have significantly lower estimated probability of staying at the same centrality than male immigrants from the Nordic countries living at the same centrality levels. At last, we consider immigrants outside the Nordic countries who have not stated any reason for immigration to Norway. For female immigrants in Group I, we found that the only significant result was related to the estimated difference in the probability of emigration. This estimate was positive. For Groups II–VIII, we did not find any results where the estimated differences in probabilities switch sign and at the same time are significant.

5.7. Duration of education: empirical results for Group I

We now turn to the importance of educational achievement for the probability of making any of the three choices. Comparison is made with a group of women with either no or unspecified education. Estimates of differences in probabilities are reported in **Table 4**. The figures in line 1 in **Table 4** are for female immigrants with primary school as their highest education.

These women have a significant higher estimated probability of staying at the same centrality level and significant lower estimated probability of emigration than women with no or unspecified education. With respect to the probability of internal migration, no significant difference is found.

For women with some secondary education, we do not find any significant differences in probability of making any of the three choices. The third line with figures in **Table 4** is for female immigrants having completed secondary education. Female immigrants with this educational background have a significant lower estimated probability of emigration than female immigrants with no or unspecified education. For the two other states of choice, we do not find that the differences in estimated probabilities are statistically significant.

The results for women with university and/or college education (lower degree) are reported in the fourth line with figures in **Table 4**. We do not find any significant estimated differences in probability for any of the three states. Finally, we consider female immigrants with education from university and/or college education (higher degree), cf. the last line in **Table 4**. These females have a significant lower estimated probability of staying at the same centrality level and a significant higher estimated probability of internal migration than female immigrants with no or unspecified education. The estimated difference in the probability of emigration is insignificant.

5.8. Duration of education: empirical results for Groups II–VIII

The results with respect to duration of education are rather similar across the eight groups. For the two groups with the shortest time of education, almost all the signs are as for immigrant

	No migration		Internal migration		Emigration	
Difference in probability	Estimate	*t*-Value	Estimate	*t*-Value	Estimate	*t*-Value
For woman with primary education	0.007	2.466	−0.003	−1.459	−0.003	−2.380
For woman with some secondary education	0.007	1.141	−0.005	−0.766	−0.003	−1.123
For woman with completed secondary education	0.005	1.654	−0.002	−0.656	−0.003	−2.179
For woman with education from university/university college, lower degree	0.001	0.347	0.001	0.458	−0.002	−1.602
For woman with education from university/university college, higher degree	−0.014	−2.734	0.013	2.832	0.001	0.430

Note: *T*-values obtained by using the delta method. Assumptions with respect to other variables than those related to the extent of education: The individual is a woman aged 30 years who resides at centrality level 1. Her duration of residence is between 3 and 5 years and she is working. Her stated reason for immigration is work. She belongs to a family consisting of five persons, whereof four are immigrants.

Table 4. Estimated differences in probability of the three alternatives of mobility for different groups of women according to the extent of education and relative to the group of women with no or unspecified education.

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women in Group I. The only exception is for Group II when we look at those with some secondary education. For immigrant women at centrality level 2, we obtained the opposite result for the estimated difference in the probability of domestic migration compared to what was found for female immigrants living at centrality level 1. For female immigrants with completed secondary education, we obtained a different sign of the estimated differences in probability of both staying at the same centrality level and domestic migration, but the estimates are not significant. For those with university/college education (lower degree), the most important difference is related to the probability of domestic migration. For six out of seven groups, the opposite result for the estimated difference in probability between those with this education and those with no or unspecified education was obtained. For those with the highest education different results for many of the groups compared to those obtained for Group I, that is, female immigrants living at centrality level 1, could be established. At centrality level 1, the estimated difference in probability of domestic migration was positive but insignificant, whereas this is not found for women living at centrality level 3 and for men living at centrality levels 3 and 4. For women living at centrality level 3 and men living at centrality level 4, the estimated difference in the probability of emigration is significantly lower for those with the highest type of education compared to those with no or unspecified education.

5.9. Family size and composition: empirical results for Group I

Finally, we consider how changes in the family size and its composition with respect to the number of immigrants and non-immigrants influence the probability of the three choices. The results are provided in **Table 5**. In all cases, comparison is made with respect to an individual who is part of a family with five members, whereof four are immigrants.

In **Table 5**, example 1, we compare a female immigrant living in a family consisting of five immigrants with a woman living in a family of the same size, but where one of its members is born in Norway. We find that the former female immigrant has a significant lower estimated probability of staying at the same centrality level and a significant higher estimated probability of internal migration. When it comes to the difference in estimated probability of emigration, we do not find any effects.

At the next row (**Table 5**, example 2), we look at a person who belongs to a family of five, two are born in Norway. For this group of women, the effects are the opposite than those found for the women living in a pure immigrant family of five persons. This result indicates that family composition with respect to immigration is of great importance when it comes to emigration in particular, but also to internal migration.

5.10. Family size and composition: empirical results for Groups II–VIII

In conjunction with family size and composition, we could not find any result for the other groups that deviate in a significant way from those found for Group I, but there are some examples of sign switches. This is the case both when one considers a male immigrant living in a family where all of its five members are immigrants and in a family of the same size where three of its members are immigrants.

Difference in probability	No migration		Internal migration		Emigration	
	Estimate	*t*-Value	Estimate	*t*-Value	Estimate	*t*-Value
For woman belonging to a family with five members, who all are immigrants	−0.008	−3.288	0.005	2.668	0.002	1.880
For woman belonging to a family with five members, three are immigrants	0.006	3.559	−0.004	−2.868	−0.002	−2.109

Note: *T*-values obtained by using the delta method. Assumptions with respect to other variables than those that are related to the number of family members and the composition of the family with respect to immigrants/non-immigrants: The individual is a woman aged 30 years who resides at centrality level 1. Her duration of residence is between 3 and 5 years and she has some secondary education. She is working and her stated reason for immigration is work.

Table 5. Estimated differences in probability of the three alternatives of mobility for different groups of women according to the number of members of the family and its composition with respect to immigrants/non-immigrants relative to women who are member of families with five members, whereof four are immigrants.

6. Conclusions

We have considered trinomial logit models for cross-sectional data where an immigrant chooses between (i) migrating to another centrality level, (ii) emigrating, or (iii) staying at the same centrality level. We looked at official Norwegian statistics and observed whether and how an immigrant's state of residence had changed from the end of 2012 to the end of 2013. The explanatory variables were related to age, time of residence in Norway, the duration/extent of education, labor market status, reasons for immigration and the size and composition of the family of the individual. Using the trinomial logit models, there is no close relationship between the parameter estimates and the marginal effects related to the different variables. To demonstrate how large the different marginal effects are, we have presented results for a typical individual.

The estimations have been carried out for eight different groups obtained by combining four centrality levels and the two genders. We find that the probability of emigration and the probability of internal migration decrease systematically with the duration of residence. This conclusion holds for all eight groups. The finding indicates that there is an integration effect over time among immigrants.

When it comes to labor market status, the results show that being employed or combining employment with education contributes to a higher probability for staying at the same centrality level. There are, however, some significant differences between the different centrality levels. Our findings are consistent with the finding of other emigration studies, which conclude that labor market participation strengthens the ties to the host country. In some sense, our findings are stronger than the results of other studies in that we also find that labor market participation reduces internal migration.

With respect to the reason for immigration, the conclusion is that work, family and escape contribute to a lower probability of emigration and a larger probability of staying at the same centrality level when one compares to the reference individual, who is an immigrant from the Nordic countries. For this group of variables, the marginal effects do not seem to be larger for

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men than for women, but there is a tendency that the variation in the effects across the centrality groups is slightly larger for women than for men.

We find small marginal effects with respect to the variables representing the size and composition of the family of the individual. An increase in family members born in Norway contributes to a moderate reduction in the probability of emigration.

Initially, we noticed that European countries will rely on immigration because of future labor shortages: the aging of the population and low birth rates. Our analysis shows that immigrants who are well integrated into employment are inclined to remain, while those not in the work force have the highest rates of emigration. Immigrants with the highest education are also showing high rates of probability of emigrating. This conspicuous contradiction provides a need of more in-depth analyses. Two questions that arise are why some immigrants become employed but others not and what is the effect of the relatively low dispersion in Norwegian wages, that is, that unskilled workers obtain relatively high wages whereas high-skilled workers obtain relatively low wages as compared to many other Western countries [9]. With such a wage structure, there has been some worry that Norway is more attractive to low-skilled workers than to high-skilled workers when it comes to the composition of immigration and emigration. Our finding of relatively high probability of emigration among well-educated immigrants gives some support for this concern.

Appendix A

Variable	Description	Definition
Age	Age	Age in years
DRT02	Dummy for duration of residence	*DRT02* = 1 if the duration of residence is between 0 and 2 years, otherwise 0
DRT35	Dummy for duration of residence	*DRT35* = 1 if the duration of residence is between 3 and 5 years, otherwise 0
DRT610	Dummy for duration of residence	*DRT610* = 1 if the duration of residence is between 6 and 10 years, otherwise 0
DRT1115	Dummy for duration of residence	*DRT1115* = 1 if the duration of residence is between 11 and 15 years, otherwise 0
DLMS1	Dummy for labor market status	*DLMS1* = 1 if the immigrant is working, otherwise 0
DLMS2	Dummy for labor market status	*DLMS2* = 1 if the immigrant is combining work and education, otherwise 0
DLMS3	Dummy for labor market status	*DLMS3* = 1 if the immigrant is enrolled in education, otherwise 0
DLMS4	Dummy for labor market status	*DLMS4* = 1 if the immigrant is unemployed, otherwise 0
DRWORK	Dummy for reason for immigration	*DRWORK* = 1 if the reason for immigration is work, otherwise 0
DRESCAPE	Dummy for reason for immigration	*DRESCAPE* = 1 if the reason for immigration is escape, otherwise 0
DRFAMILY	Dummy for reason for immigration	*DRFAMILY* = 1 if the reason for immigration is family, otherwise 0
DREDUCATION	Dummy for reason for immigration	*DREDUCATION* = 1 if the reason for immigration is related to education, otherwise 0
DRUNK	Dummy for reason for immigration	*DRUNK* = 1 if the reason for immigration to Norway is unspecified and the individual does not come from one of the Nordic countries, otherwise 0
DEDU1	Dummy for duration of education	*DEDU1* = 1 if the individual has primary school, otherwise 0
DEDU2	Dummy for duration of education	*DEDU2* = 1 if the individual has some secondary education, otherwise 0
DEDU3	Dummy for duration of education	*DEDU3* = 1 if the individual has completed secondary education, otherwise 0
DEDU4	Dummy for duration of education	*DEDU4* = 1 if the individual has education from university/ high school, lower degree, otherwise 0
DEDU5	Dummy for duration of education	*DEDU5* = 1 if the individual has education from university/ high school, higher degree, otherwise 0
FAMTOT	Family variable (count variable)	The total number of members of the family of the immigrant
FAMIMM	Family variable (count variable)	The number of immigrants in the family of the immigrant present in the estimation sample
Y_0	Dummy for no movement	Y_0 = 1 if the individual lives at the same centrality level in Norway in 2013 as in 2012, otherwise 0
Y_1	Dummy for domestic migration	Y_1 = 1 if the individual lives at another centrality level in 2013 than in 2012, otherwise 0
Y_2	Dummy for emigration	Y_2 = 1 if the individual lives abroad in 2013 and in Norway in 2012, otherwise 0

Table 6. An overview of the variables and their definition.

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Variable	Description	Domestic migration		Emigration	
		Estimate	***t*-Value**	**Estimate**	***t*-Value**
Constant		−1.898	−5.829	−0.867	−2.361
Age		0.009	0.554	−0.049	−3.414
$(Age/10)^2$	Squared (scaled) age	−0.057	−2.752	0.045	2.967
DRT02	Dummy for between 0 and 2 years of residence	0.274	1.645	1.772	7.934
DRT35	Dummy for between 3 and 5 years of residence	0.056	0.332	1.632	7.169
DRT610	Dummy for between 6 and 10 years of residence	0.181	1.052	0.854	3.332
DR1115	Dummy for between 11 and 15 years of residence	−0.014	−0.072	0.925	3.712
DEDU1	Dummy for primary school	−0.157	−1.523	−0.382	−2.466
DEDU2	Dummy for some secondary education	−0.218	−0.729	−0.299	−1.058
DEDU3	Dummy for completed secondary education	−0.081	−0.691	−0.378	−2.428
DEDU4	Dummy for university/college, lower level	0.051	0.439	−0.249	−1.694
DEDU5	Dummy for university/college, higher level	0.454	3.321	0.092	0.509
DLMS1	Dummy for being at work	−0.594	−6.238	−1.237	−10.411
DLMS2	Dummy for combining work and education	−0.026	−0.182	−1.074	−4.324
DLMS3	Dummy for being enrolled in education	0.232	1.782	−0.249	−1.203
DLMS4	Dummy for being unemployed	−0.093	−0.589	−0.723	−3.047
DRLAB	Dummy for work as reason for immigration	−0.109	−0.705	−1.696	−11.562
DRREF	Dummy for escape as reason for immigration	1.123	7.562	−2.528	−11.821
DRFAM	Dummy for family as reason for immigration	0.119	0.827	−1.748	−12.202
DREDU	Dummy for education as reason for immigration	0.316	1.519	−0.33	−1.783
DRUNK	Dummy for unspecified reason for immigration	0.429	2.076	−0.853	−4.146
FAMTOT	Number of family members	−0.382	−7.630	−0.463	−6.062
FAMIMM	Number of family members who are immigrants	0.253	4.727	0.265	3.153
Diagnostics					
No. of observations		15,255			
Scaled R^2		0.099			
Schwarz B.I.C		5240.19			
Log-likelihood value		−5018.64			

Table 7. Estimation results for outbound internal migration and emigration: women.

	Group						
Cases	**II**	**III**	**IV**	**V**	**VI**	**VII**	**VIII**
Residence time:							
Between 0 and 2 years of res.	AAA	ABA	AAA	AAA	AAA	AAA	AAA
Between 3 and 5 years of res.	ABA	ACA	AAA	AAA	AAA	ABA	AAA
Between 6 and 10 years of res.	AAB	ABA	AAA	AAA	AAA	ABA	AAA
Between 11 and 15 years of res.	ACB	BCA	ADA	BBB	BBB	BBB	ABA
Labor market status:							
At work	AAA	AAA	AAA	ABA	AAA	AAA	AAA
Combination of work and education	BBA	BDA	BCA	ADA	BCA	ACA	ACA
Full time with education	BBB	CAA	DAA	DAA	CBA	DBA	DBA
Unemployed	BCB	ACA	ACA	ADA	ABA	ACA	ADA
Immigration reason:							
Work	BBA	ABA	ABA	ABA	CDB	AAA	ABA
Escape	AAA	CAA	DBA	BAA	AAA	AAA	DBA
Family	ABA	ACA	ACA	ABA	CAA	BBA	ABA
Education	BBB	CBC	ABA	CBC	CBC	DAD	DCD
Unspecified	CBA	CBA	ACA	BBA	CBB	BBA	ACA
Duration of education:							
Primary education	AAA	AAA	ABA	AAA	ABB	AAA	AAA
Some secondary education	BCA	ABA	ABA	AAB	AAA	AAA	ABA
Completed secondary education	AAA	AAA	ABA	AAA	CCA	AAA	AAA
University/college, lower degree	ACA	BBA	ACA	ACA	ACA	ACA	ACA
University/college, higher degree	BBC	BAC	DBD	BAC	BBC	BAD	DBD
Family variables:							
Mem. of fam. with 5 ind. who all are immi.	AAB	AAA	ABA	BBC	BBC	BBC	BCA
Mem. of fam. with 5 ind. whereof 3 are immi.	AAB	AAA	ABA	CBC	BBC	BAC	ACA

Note: **Tables 1–5** are all related to Group I, which consists of female immigrants living at centrality level 1. All the cells in the current table contain three letters written without space. The first position is related to the state of staying at the same centrality level, the second position is related to the state of domestic migration to 2 the third position is related to the state of emigration. Groups II, III and IV consist of female immigrants living at centrality levels 2, 3 and 4, respectively. Whereas the number of observations is 15,255 for Group I, the numbers of observations for Groups II–IV are, respectively, 9917, 30,539 and 203,982. Groups V, VI, VII and VIII consist of male immigrants living at centrality levels 1, 2, 3 and 4, respectively. The numbers of observations for Groups V–VIII are, respectively, 15,334, 10,883, 33,963 and 226,073. The capital letter A means that the estimated difference in probability is of the same sign as for Group I and in addition it is statistically significant. The capital letter B means that the estimated difference in probability is of the same sign as for group I, but the estimate is insignificant. The capital letter C means that the estimated difference in probability is of the opposite sign as for Group I, but the estimate is insignificant. The capital letter D means that the estimated difference in probability is of the opposite sign as for Group I and in addition it is significant. Thus, for instance, AAA in the upper left position means that all the three estimated differences related to residence time 0 and years for Group II (i.e., female immigrants living in centrality level 2) are of the same sign as for Group I, that is, immigrant females living at centrality level 1. Besides, all the three estimates are statistically significant.

Table 8. Comparison of the results for groups II–VIII with those of Group I.

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Section 5

The New Wave of Immigration – Foreign Students

Chapter 12

The New Actors of International Migration: A Comparative Analysis of Foreign Students' Experiences in a Medium-Sized City in Turkey

Serdar Ünal

Additional information is available at the end of the chapter

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Abstract

International or foreign student migration is one of the topics that started to become a hot topic in many different countries because of various aspects. Lately, Turkey, especially in terms of higher education, can be seen as a country that sends students to study abroad but also attracts foreign students. With regard to Adnan Menderes University which is located in a medium-sized city (Aydın), the main focus of this study is based on experiences of foreign students regarding prejudice, discrimination and racism. In addition to this, the topics such as to what extent are foreign students having difficulty to adapt to the life in Turkey, to what extent are the students satisfied with their lives in the country, in what way could foreign students who currently study in Turkey help to increase the foreign student population or sustain the student migration were examined. In this context, six different categories, such as students from Africa, Asia, South Caucasia, Middle East, Europe/Balkans and Europe/Other, were created. Surveys were applied to participants of the study group in line with a quantitative research scope.

Keywords: foreign students, international migration, prejudice and discrimination, migrant networks, satisfaction, Turkey

1. Introduction

We live in an age where international migration movement grows because of changes of the global economy and increase in communication and transportation networks [1]. Foreign students are usually seen as a category of international migration [2–4]. International or cross-border student migration rapidly increased since the beginning of twenty-first century and is expanding. Thus, as many different fields are influenced by the rapid changes in the

world, higher education is also affected; many students leave their home country each year to study abroad and become a part of the international migration movement [5–9]. Kadıoğlu et al. [5] emphasize that "increased efforts for development in underdeveloped countries, the necessity of qualified human power in developed countries, travel convenience due to globalization, increase in cooperation and interaction between countries, change in production relations, increased population […] and many other reasons resulted as the fact that international student mobility reached a significant level" (p. 10). However, for some authors [4, 6, 10], although students became an important key figure regarding the global migration flood, foreign student migration was neglected in migration studies compared to other types of migration.

In this context, according to Çetinsaya [11], "student mobility is one of the most significant figures of internationalization process which should be evaluated within the frame of massification and universalization of access to higher education" (p. 143). Therefore, the increase in migrating for the sake of education all around the globe forced both the developed and developing countries to make new plans, develop new strategies and cooperation. Thus, a significant amount of the literature has emerged regarding various aspects of foreign student migration throughout the last 10–15 years [12–14].

Turkey was a country that sent students abroad to study at higher education institutions until recently, but due to changes in the world Turkey—while still sending students—also became a host country that attracts students. Although it is a slow process, the number of foreign students has started to increase, especially throughout the last 15 years [5, 7, 11, 15–17]. The story of hosting foreign students in Turkey began with the collapse of the Soviet Union as Turkey made efforts to strengthen its relationships with countries that declared independence including Turkic Republics (Azerbaijan, Turkmenistan, Kazakhstan, Kirghizstan, and Uzbekistan). Özdemir and Can [18] point out that the great student project (GSP), which began during the 1992–1993 academic year, caused a significant acceleration regarding international student migration. Later on other countries sent students to Turkey started to vary and a more cosmopolitan student profile emerged. Since Turkey faces new student migrations because of recent international developments, there is a need for developing short-, middle- and long-term projections on foreign students. Although international or foreign student migration happens to a larger scale in societies which are described as developed countries, the issue is important to Turkey and needs to be considered comprehensively because this issue has demographic, social, economic, cultural and political consequences for the country.

2. Content and problem of the research

Foreign students' experiences and feelings which they will communicate will have an effect on people that are planning to migrate to Turkey for educational purposes or on people that consider the possibility to come. Therefore, the most significant issue is to create a positive

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impression on existing foreign students and offers them respectable, suitable opportunities, and a good standard of living. These very aspects will also affect the decision of the existing foreign students to continue or not to a higher level of education when their current program is completed, or even to remain in the country, in other words, the permanence of the migration. The studies that focus on the status of foreign students in Turkey usually evaluate; academic, language, socioeconomic and adaptation problems, there are also difficulties with the process of arrival-applications, concerns regarding reasons for choosing Turkey, and degree of satisfaction of students.

In addition to these, all around the globe, students who go abroad for the sake of an education can face prejudices, discrimination, racism and adaptation problems in the cities in which they live. Thus, with regard to Adnan Menderes University, which is located in a medium-sized city (Aydın), the main focus of this study is based on (i) experiences of foreign students regarding prejudice, discrimination and racism in the city they live. It was also a consideration of ours to separate on campus and off campus experiences. The other questions guiding the study are as follows: (ii) To what extent are foreign students having difficulty to adapt to the life in Turkey? (iii) To what extent are the students satisfied with their lives in the country? (iv) In what way could foreign students who currently study in Turkey help to increase the foreign student population or sustain the student migration?

In this sense, this study examines foreign students' experiences in the host country Turkey from a broad perspective. Considering the fact that experiences of the foreign students might vary due to the different geographies they came from and the different cultures they were exposed to, students were classified regarding their region/country of origin and data were evaluated. Therefore, impressions and experiences of foreign students in Turkey were evaluated according to their region/country of origin. In this context, six different categories, such as students from Africa, Asia, South Caucasia, Middle East, Europe/Balkans and Europe/Other, were created and quantitative data gathered from field research were evaluated.

3. Scope and methodology of the research

The research is based on quantitative data which was gathered from foreign students that are registered for a 4 year program in Aydın Adnan Menderes University of Turkey during 2015–2016 period. There are 335 foreign students who are registered in a 4-year program; however, 54 of them are of Turkish origin and were excluded from the research. Therefore, *population* of the research is 281 foreign students who are studying at undergraduate level. Throughout this study, all of these students were tried to be reached. However, after excluding those who did not want to participate in the study due to various reasons, those whose surveys were invalid, and those not able to contact, the *study group* consisted of 182 foreign students that are studying in an undergraduate level.

Surveys were supplied to participants of the study group in line with quantitative research scope. The survey was conducted in February–March, 2016, and included responses from

182 foreign students. Surveys were prepared both in English and in Turkish, and students were asked to fill in the questions in the language which they feel most comfortable with. The collected data of the surveys were analyzed with the help of SPSS version 18.0 (Statistical Package for the Social Sciences) software. The research data were summarized by means of frequency distribution tables. In this sense, frequency distribution tables are used to describe the basic features and imply a simple quantitative summary of the data set.

The study group includes students between 17 and 27 years of age. The amount of students that participated in the research was consistent of 71.4% males and 28.6% females. The gender distribution of the students in the research is comparable to the gender distribution of foreign students in Turkey. Regions from which these students came from are as follows: 38.5% are from Africa; 25.8% are from Asia; 11.5% are from Europe/Balkans; 11.0% are from South Caucasia; 9.3% are from Middle East; and 3.8% are from Europe/Other. The students which came from the mentioned regions are from 46 different countries.[1] The students who participated in the research are registered in 12 different units and 31 different majors.

4. Conceptual framework

4.1. Cross-border student mobility and migration in the world

Many countries in the world started to display efforts for the sake of taking a share of the continuously expanding international or cross-border student mobility market. The number of students that were labeled as an international student all around the world was 800 thousand in 1975, 1.3 million in 1990, 2.1 million in 2000, 4.1 in 2010 and 4.3 in 2011 [19–21]. According to OECD reports in 2012 and 2013, approximately 4.5 million students were registered in an educational institution located outside of their country of citizenship, and 73% of these students were studying in an OECD country [20]. The number of foreign students all around the globe between 2005 and 2012 increased by 50% [7, 20]. In this sense, many higher education specialists claim that this increase will continue and might reach to 8 million in 2025 [11]. In this context, foreign students have become important to OECD countries in regards to social, economic and political aspects.

Number of foreign students in Turkey is about 1% of all international students [11]. According to UNESCO statistics, although Turkey was among the first 20 countries in 2000,

[1] ***Africa:*** Ghana 8.8% (16); Kenya 5.5% (10); Somali 4.9% (9); Zambia 3.3% (6); Ivory Coast 2.7% (5); Malawi 2.7% (5); Ethiopia 1.6% (3); Senegal 1.2% (2); Guinea 1.1% (2); Nigeria 1.1% (2); 0.5% (1); Gambia 1.1% (1); Zimbabwe 0.5% (1); Algeria 0.5% (1); Morocco 0.5% (1); Egypt 1.1% (2); Sudan 0.5% (1); Democratic Republic of the Congo 0.5% (1).

Asia: Turkmenistan 11.5% (21); Afghanistan 5.5% (10); Pakistan 2.2% (4); Tajikistan 1.6% (3); Kazakhstan 1.1% (2); Mongolia 1.1% (2); China 0.5% (1); Indonesia 1.1% (2); Kirghizstan 0.5% (1); Malaysia 0.5% (1).

Europe/Balkans: Albania 2.7% (5); Bulgaria 2.7% (5); Kosovo 1.6% (3); Bosnia and Herzegovina 1.1% (2); Montenegro 1.1% (2); Macedonia 1.1% (2); Greece 1.1% (2).

South Caucasus: Azerbaijan 10.4% (19); Georgia 0.5% (1).

Middle East: Syria 2.7% (5); Palestine 2.2% (4); Jordan 2.2% (4); Yemen 2.2% (4).

Europe/Other: Russia 1.1% (2); Germany 1.1% (2); Spain 0.5% (1); Slovakia 0.5% (1); Moldova 0.5% (1).

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and despite there being a significant increase in the number of students (from 17,654 to 38,590 between 2000 and 2012, i.e., 118%), Turkey was not among the first 20 countries that attracted foreign students in 2012 [5]. According to UNESCO data, by 2012, top five countries that send students abroad are China, India, South Korea, Germany and Saudi Arabia. Turkey is 11th in the same context [22]. From the mentioned countries, over 1.2 million students go abroad to study at higher education institutions [22]. Among the Organization of the Islamic Union, Malaysia is the leading country in the sense of attracting students, and Turkey is the fourth in the mentioned category [5]. In 2010, 13,579 students chose to come to Turkey, which is fourth among the members, for educational purposes of members of the Organization of the Islamic Union [5, 22]. We can still point out the fact, nevertheless, that Turkey's tendency towards being a part of international student market is becoming more important as of 2010.

4.2. Foreign student migration to Turkey

When the number of international or foreign students for the academic years 2000–2001 to 2014–2015 is checked, it can be seen that numbers increased more than four times in the last 15 years. While in 2000–2001, the student number was 15,805, it increased to 72,178 in 2014–2015. The increase, which started to escalate during the academic year 2009–2010, peaked in the academic year 2014–2015 (see **Figure 1**). The increase leaps to the eye as the biggest positive change.

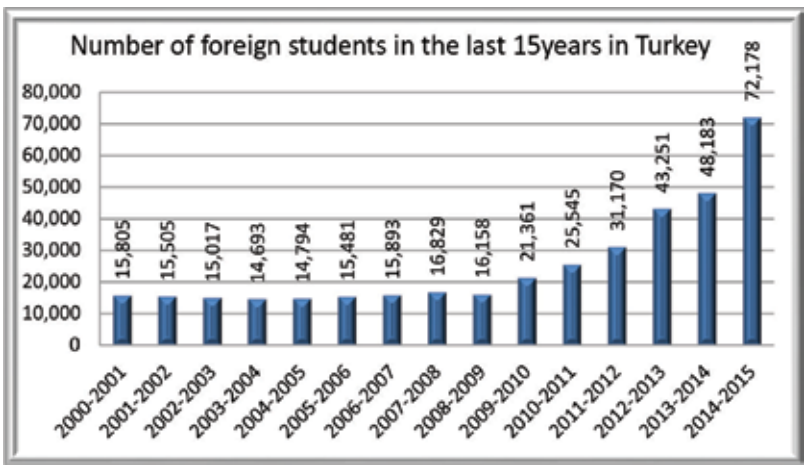

Figure 1. Number of foreign students in the last 15 years in Turkey. **Source:** Compiled from YÖK Student Statistics (between 2000 and 2016).

According to Council of Higher Education (YÖK) data, as of 2014–2015, out of 72,178 foreign students 68.8% males and 31.2% were females. When compared with the countries that have a high potential of foreign students, Turkey attracts especially male students. Also, 79.6% of

foreign students are registered at public universities and 20.4% are registered at private universities during 2014–2015.

During the 2014–2015 period, there are foreign students in Turkey from approximately 190 different countries [23]. When looking at the regions from which these students come, it was established that most come from areas close to Turkey, with which Turkey has strong geographical, historical and cultural bonds, or in which Turkish people live [5]. According to

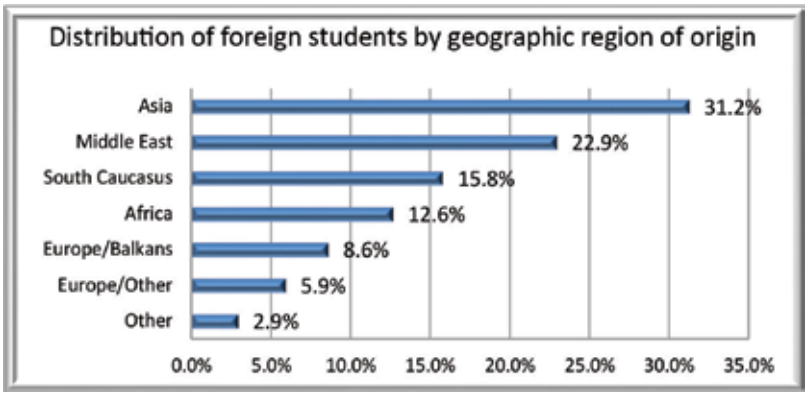

Figure 2. Distribution of foreign students by geographic region of origin. **Source:** Compiled from YÖK Student Statistics (period of 2014–2015).

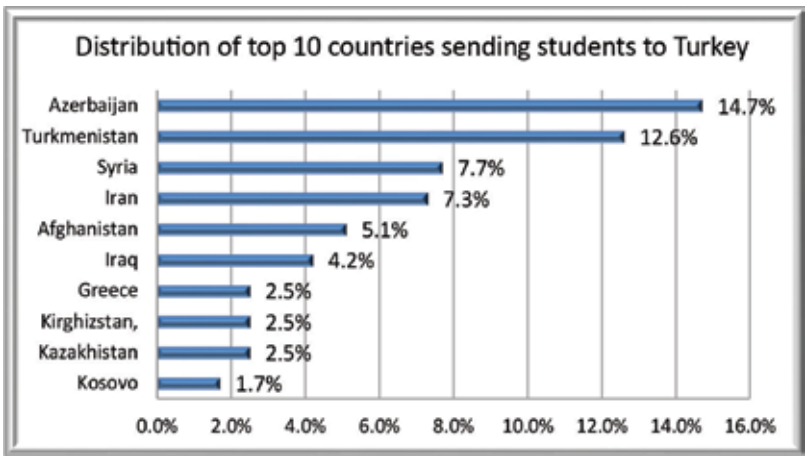

Figure 3. Distribution of top 10 countries sending students to Turkey. **Source:** Compiled from YÖK Student Statistics (period of 2014–2015).

this, the geographic regions are shown in **Figure 2**: Asia 31.2% (22,506), Middle East 22.9% (16,514), South Caucasus 15.8% (11,356), Africa 12.6% (9109), Europe/Balkans 8.6% (6188), Europe/other 5.9% (4246), Other 2.9% (2101).

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As of the period 2014–2015, top 10 countries sending students to Turkey are listed as follows (**Figure 3**): Azerbaijan (10,638), Turkmenistan (9092), Syria (5560), Iran (5302), Afghanistan (3672), Iraq (3033), Greece (1826), Kirghizstan (1819), Kazakhstan (1799), Kosovo (1237). The top six countries sending students to Turkey constitute half of the total foreign students. Outside of the top 10, respectively, Nigeria (1176), Pakistan (1127), China (1088), TRNC, Turkish Republic of Northern Cyprus (1069), Russian Federation (1048), Bulgaria (1011), Palestine (976), Somalia (915), Mongolia (912) and Albania (775) are the countries that sent the most students to Turkey [23]. Turkey attracts also students from the top 20 countries sending most students abroad: Germany, Iran, Russian Federation and Kazakhstan [22, 23].

Most of the students who chose to study in Turkey are from countries that have a similar language, history, culture and are geographically close to Turkey. As stated by Özdemir and Can [18], establishing intimate bonds between Turkey and cognate countries is not just a political choice or historical responsibility but also a necessity in the sense of economic, social, cultural, strategic and academic aspects. The great student project (GSP), which began during the 1992–1993 academic year, at first included five Turkic Republics; nowadays, it includes countries and groups from Asia and the Balkans along with five Turkic Republics [18].

For many countries, foreign students are seen as an economic resource. In many developed countries, educating foreign students plays a big part in the economy. Currently, in terms of Turkey, we could not assert that educating foreign students plays a big part in the economy. However, we can assert that in the near future foreign students will become a significant part of the economy in Turkey too. In Turkey, tuition fees[2] for the foreign students vary according to whether the university is private or publicly funded, its location and the course chosen [24]. Adnan Menderes University is a state university. The tuition fees for foreign students vary depending on the nature of the program. Approximate annual tuition fees for foreign students studying at Adnan Menderes University vary between 300 and 750 USD [25]. It can be said that Turkey offers excellent value for money, with living expenses and tuition costs comparable to developed countries. An average international student in Turkey will spend about 400–500 USD a month on accommodation, food, clothing, entertainment, transportation and telephone costs [24].

5. Findings and discussion

According to Tan and Goh [26], "as the world becomes increasingly interconnected and culturally diverse, the internationalization of education has become a major goal of many universi-

[2]Approximate annual tuition fees (2016-17 academic year) for the foreign students in Turkey are as follows [24];

State universities: (a) Universities where the medium of instruction is Turkish: Turkish nationals: 80-250 USD Foreign nationals: 240-750 USD; (b) Universities where the medium of instruction is English: Turkish nationals: USD 150-500 USD Foreign nationals: USD 450-1500 USD.

Foundation or private universities: Foreign nationals: 5000-20,000 USD.

ties" (p. 651). The increase in numbers of foreign students, who came to Turkey for educational purposes, creates a cosmopolitan structure in many different universities and cities. As stated by Lee and Rice [27], foreign students "increase the diversity of student populations, add new perspectives to classroom conversations, and, related, increase our awareness and appreciation for other countries and cultures" (p. 381). In this sense, Ramos et al. [1] indicate that foreign students are valuable asset or [capital] as they contribute academically, culturally and financially to universities and host countries. However, both the diversification of student profiles at university campuses and increase in the appearance of foreign students in some cities bring many problems with them. One of which is related to adaptation process of foreign students to the host society.

5.1. Social and cultural adaptation of foreign students

The differences of social and cultural aspects between countries of origin of the students and the country to which they came for educational purposes could make the adaptation process difficult [17, 28, 29]. There is a linear relationship between similarity of their own culture, the culture of the host country and the adaptation process. Looking at this point, adaptation to the values of the country to which students migrated for educational purposes is related to the social, cultural and religious backgrounds of students or the level of comfort they feel. The mentioned aspects are seen to have a significant value for determining the complexity of foreign students' adaptation process. In this way, foreign students located in Aydın are evaluated in the sense of comfort regarding cultural and religious aspects.

Looking at **Table 1** and addressing the question, "Do you feel comfortable here in terms of culture and religion"; 12.6% of the students said they feel "very comfortable," 45.1% said they feel "comfortable" and 25.3% said they are "neutral." About 8.8% of the students said they "don't feel comfortable" and 8.2% of the students said they "don't feel comfortable at all." When evaluated according to regions, students from Europe/Balkans, Asia, Europe/Other and South Caucasus feel more comfortable in terms of culture and religion than students from Africa and Middle East.

	Africa (%)	Asia (%)	South Caucasus (%)	Middle East (%)	Europe/Balkans (%)	Europe/other (%)	Total (%)
I feel very comfortable	10.0	6.4	30.0	5.9	19.0	28.6	12.6
I feel comfortable	45.7	55.3	30.0	35.3	52.4	14.3	45.1
Neutral	22.9	19.1	30.0	41.2	19.0	57.1	25.3
I don't feel comfortable	11.4	10.6	5.0	11.8	.0	.0	8.8
I don't feel comfortable at all	10.0	8.5	5.0	5.9	9.5	.0	8.2
Total	100	100	100	100	100	100	100

Table 1. Do you feel comfortable here in terms of culture and religion?.

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Yeh and Inose [29] find in their study, conducted in the US, that one of the most significant problems regarding cultural differences is that international students, who come from an eastern country, where a collectivist life style is accepted compared to a western country, where a personal life style is dominant, face a harder time with respect to their adaptation process regarding both academic and cultural aspects. The main argument is that if a foreign student faces a minimal cultural difference and behavior pattern between the host country and their homeland, then their adaptation process will be easier. Our research shows that foreign students, who come to Turkey from countries that are similar to Turkey in the sense of culture, religion and are close to Turkey geographically, will comparatively easy overcome the adaptation process. The following table demonstrates the results in relation to where the students come from.

Table 2 looks at the question "Do you have any difficulties in adapting to Turkey?" When evaluated, 8.8% of the students said they "have great difficulty," 34.1% said they "have some difficulty" and 28.6% said they "have little difficulty." About 16.5% of the students said they "have no difficulty" and 12.1% said they "have no difficulty at all." When evaluated according to regions, students from Europe/Other, Europe/Balkans, South Caucasus and Asia have little difficulty in the adaptation process compared to students from Africa and the Middle East.

	Africa (%)	Asia (%)	South Caucasus (%)	Middle East (%)	Europe/Balkans (%)	Europe/other (%)	Total (%)
Have great difficulty	14.3	8.5	5.0	5.9	.0	.0	8.8
Have some difficulty	40.0	31.9	25.0	47.1	23.8	14.3	34.1
Have little difficulty	27.1	31.9	20.0	35.3	28.6	28.6	28.6
Have no difficulty	14.3	19.1	10.0	11.8	23.8	28.6	16.5
Have no difficulty at all	4.3	8.5	40.0	.0	23.8	28.6	12.1
Total	100	100	100	100	100	100	100

Table 2. Do you have any difficulties in adapting to Turkey?.

The problems or the potential problems that students experience when going to other countries for educational purposes are dependent on the students' personal features, personalities, countries from which they came and its culture. In this context, it can be claimed that students who came from Europe/Balkan, Europe/Other, Asia and South Caucasia feel more comfortable in relation to culture and religion compared to students that came from other regions, hence, passing the adaptation process and problems more easily.

It is argued here that the level of adaptation is a determining factor for students to continue their lives in Turkey or to interrupt their educational career and to go back to their country of origin or to another country. The thought of returning or leaving might negatively affect

the process of adaptation to society. In this context, reasons for leaving or the thoughts about leaving are the main problems which can be classified as [9, 17, 29–35]: Language problems, cultural and religious barriers, academic and financial difficulties, interpersonal problems, discrimination, racism, loss of social support, alienation and homesickness, and psychological problems. All of these are the dominant factors which foreign students can experience.

5.2. Facing prejudiced, discriminating and racist behaviors

All around the globe, students who go abroad for the purpose of education can face prejudice, discrimination and racism in the cities in which they live. Prejudices, discrimination and racist behaviors are the key factors that negatively affect the students' adaptation process and psychological well-being [27, 36]. Despite their growing importance, there have been too little studies focusing on these issues. Therefore, this study focused on foreign students from different countries concerning the level of prejudice, discrimination and racist behaviors that they face.

For Hanassab [37], "discussions of prejudice and discrimination tend to focus on the biases and negative perceptions of individuals toward members of other groups" (p. 158). Prejudice should not be categorized as discrimination although the two are closely related [38]. In fact, "prejudice is an unjustified or incorrect attitude (generally negative) toward an individual based solely on the individual's membership of a social group" [39]. In this sense, as discussed by Simpson and Yinger [38], "it may never involve overt action toward members of a minority group, either because no situation presents itself or, in situations wherein one might show antipathy, because other attitudes inhibit open expressions of hostility" (p. 22). In this context, students who participated in the research were asked whether they had faced prejudiced behaviors off university campus.

Table 3 addresses the question "Do you face any prejudiced behavior off university campus?" When evaluated 11.5% of the students claim they faced such behaviors "very often," 31.9% claim they faced such behaviors "sometimes," 25.3% claim they faced such behaviors "rarely" and 31.3% of the students claim they "never" faced such behaviors. When evaluated according to the regions, students from Africa, Middle East and Asia stand out as the groups which faced prejudiced behaviors off campus mostly. Students from South Caucasia, Europe/Other and Europe/Balkans, on the other hand, faced such behaviors comparatively less.

	Africa (%)	Asia (%)	South Caucasus (%)	Middle East (%)	Europe/Balkans (%)	Europe/other (%)	Total (%)
Very often	11.4	10.6	15.0	5.9	14.3	14.3	11.5
Sometimes	44.3	29.8	15.0	41.2	9.5	14.3	31.9
Rarely	20.0	31.9	20.0	29.4	28.6	28.6	25.3
Never	24.3	27.7	50.0	23.5	47.6	42.9	31.3
Total	100	100	100	100	100	100	100

Table 3. Do you face any prejudiced behavior off university campus?.

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Table 4 examines the question "Do you face any prejudiced behavior on university campus?" When evaluated, 2.7% of the students claim they faced such behaviors "very often," 22.5% claim they faced such behaviors "sometimes," 26.9% claim they experienced such behaviors "rarely" and 47.8% claim they "never" faced such behaviors. When evaluated according to the regions, students from Africa, the Middle East, and South Caucasus stand out as the groups which faced prejudiced behaviors on campus mostly. Students from Europe/Balkans, Europe/Other and Asia, on the other hand, faced such behaviors comparatively less. In general, when evaluating prejudiced behaviors on or off campus, foreign students faced prejudiced behaviors to a greater extent off campus. When evaluated according to the country or region students come from, African and Middle Eastern students faced prejudiced behaviors more often both on and off campus compared to students from other regions.

	Africa (%)	Asia (%)	South Caucasus (%)	Middle East (%)	Europe/Balkans (%)	Europe/other (%)	Total (%)
Very often	5.7	.0	5.0	0.0	0.0	0.0	2.7
Sometimes	40.0	14.9	15.0	11.8	4.8	0.0	22.5
Rarely	24.3	29.8	35.0	47.1	14.3	0.0	26.9
Never	30.0	55.3	45.0	41.2	81.0	100.0	47.8
Total	100	100	100	100	100	100	100

Table 4. Do you face any prejudiced behavior on university campus?.

Antonovsky [40] states that "discrimination may be defined as the effective injurious treatment of persons on grounds rationally irrelevant to the situation" (p. 81). For Nieto [41], discrimination refers to negative or destructive behaviors that can result in denying some groups' or individuals life necessities. Lee and Rice [27] claim that "discrimination becomes, seemingly, justified by cultural difference or national origin rather than by physical characteristics alone and can thus disarm the fight against racism by appealing to natural tendencies to preserve group cultural identity" (p. 389). In this sense, students were evaluated in relation to discriminating behaviors off campus.

Table 5 explores the question "Do you face any discriminating behavior off campus?" When evaluating the total number of students, 7.7% claim they faced such behaviors "very often," 20.9% claim they faced such behaviors "sometimes," 19.8% claim they faced such behaviors "rarely" and 51.6% claim they "never" faced such behaviors. When evaluated according to the regions, Africa is again the leading region and the second region is Middle East. Students from Europe/Other claim they never faced such behaviors. Therefore, according to data provided in **Table 5**, students from Africa and the Middle East stand out as the groups which faced discriminating behaviors off campus most.

The next question is explored in **Table 6**, the question to be answered was "Do you face any discriminating behavior on campus?" When evaluating the total number of students, 3.8% claim they faced such behaviors "very often," 16.5% claim they faced such behaviors "sometimes," 27.5% claim they faced such behaviors "rarely" and 52.2% claim they "never"

faced such behaviors. When evaluated according to the regions, students from Middle East and Africa stand out as the groups which faced discriminating behaviors on campus most.

	Africa (%)	Asia (%)	South Caucasus (%)	Middle East (%)	Europe/Balkans (%)	Europe/other (%)	Total (%)
Very often	10.0	6.4	5.0	11.8	4.8	.0	7.7
Sometimes	32.9	6.4	15.0	29.4	4.8	.0	20.9
Rarely	20.0	25.5	20.0	23.5	14.3	28.6	19.8
Never	37.1	61.7	60.0	35.3	76.2	71.4	51.6
Total	100	100	100	100	100	100	100

Table 5. Do you face any discriminating behavior off university campus?.

	Africa (%)	Asia (%)	South Caucasus (%)	Middle East (%)	Europe/Balkans (%)	Europe/other (%)	Total (%)
Very often	5.7	2.1	5.0	5.9	0.0	0.0	3.8
Sometimes	24.3	14.9	5.0	23.5	4.8	0.0	16.5
Rarely	24.3	27.7	40.0	47.1	14.3	14.3	27.5
Never	45.7	55.3	50.0	23.5	81.0	85.8	52.2
Total	100	100	100	100	100	100	100

Table 6. Do you face any discriminating behavior on university campus?.

Table 7 looks at the question "Do you think your lecturers at university are discriminating against you?" When evaluating the total number of students, 3.8% claim "most of them" are discriminating, 18.7% claim "some of them" are discriminating and 77.5% claim that "none of them" are discriminating. When evaluated according to the regions, students from the Middle East, South Caucasia and Africa stand out as the groups which mostly claimed that they faced discriminating behaviors in courses. Students from Europe/Balkans, Europe/Other and Asia, on the other hand, claimed that they did not face discriminating behaviors very often.

	Africa (%)	Asia (%)	South Caucasus (%)	Middle East (%)	Europe/Balkans (%)	Europe/other (%)	Total (%)
Most of them	8.5	1.4	5.0	5.9	0.0	0.0	3.8
Some of them	19.1	11.4	35.0	47.1	4.8	14.3	18.7
None of them	72.3	87.1	60.0	47.1	95.2	85.7	77.5
Total	100	100	100	100	100	100	100

Table 7. Do you think your lecturers at university are discriminating against you?.

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In a research which was conducted on foreign students in Ankara, it is seen that 4.3% of students feel uncomfortable due to behaviors of academics towards them [42]. The findings of a study conducted by SETA (Foundation for Political, Economic and Social Research) also indicates that some academics display negative behaviors based on cultural, religious and ethnic prejudices against foreign students [17]. Another study which was conducted by Poyrazli and Lopez [43] in the US indicates that international students face discrimination to a greater extent than national students, and there is a relation between the level of experiencing discrimination and race. Some studies that were conducted in the US find that students from Europe face comparatively less prejudices and discriminating behaviors compared to students from other regions [43, 44]. Poyrazli and Lopez [43] claim that this could be based on the fact that students who come from other than European regions display more apparent features regarding their race and ethnicity.

Table 8 discusses the question "Do you face any racist behavior off campus?" When evaluating the total number of students, 10.4% claim they faced such behaviors "very often," 11.5% claim they faced such behaviors "sometimes," 18.1% claim they faced such behaviors "rarely" and 59.9% claim they "never" faced such behaviors. When evaluated according to the regions, students from Africa and the Middle East stand out as the groups which faced racist behaviors off campus most.

	Africa (%)	Asia (%)	South Caucasus (%)	Middle East (%)	Europe/Balkans (%)	Europe/other (%)	Total (%)
Very often	17.2	6.4	5.0	11.8	4.8	0.0	10.4
Sometimes	17.1	6.4	10.0	17.6	4.8	0.0	11.5
Rarely	21.4	8.5	25.0	17.6	14.3	42.9	18.1
Never	44.3	78.7	60.0	52.9	76.2	57.1	59.9
Total	100	100	100	100	100	100	100

Table 8. Do you face any racist behavior off university campus?.

Table 9 discusses the question "Do you face any racist behavior on campus?" When evaluating the total number of students, 5.5% claim they faced such behaviors "very often," 4.9% claim they faced such behaviors "sometimes," 14.8% claim they faced such behaviors "rarely" and 74.7% claim they "never" faced such behaviors. When evaluated according to the regions, students from Africa and the Middle East stand out as the groups which faced racist behaviors on campus most.

When facing prejudiced and discriminating behaviors are evaluated according to being on or off campus, it can be seen that these behaviors occur more off campus than on campus. Similarly, the findings of a study conducted by Hanassab [37] in the US indicate that international students experience more discrimination off campus than on campus. When our data are evaluated in relation to country or region, it is seen that both, on campus and off campus, such behaviors are more experienced by African and Middle Eastern students compared to

	Africa (%)	Asia (%)	South Caucasus (%)	Middle East (%)	Europe/Balkans (%)	Europe/other (%)	Total (%)
Very often	8.6	4.3	5.0	0.0	4.8	0.0	5.5
Sometimes	8.6	2.1	0.0	11.8	0.0	0.0	4.9
Rarely	17.1	6.4	30.0	17.6	9.5	14.3	14.8
Never	65.7	87.2	65.0	70.5	85.7	85.7	74.7
Total	100	100	100	100	100	100	100

Table 9. Do you face any racist behavior on university campus?.

students that came from other regions or countries. On the other hand, experiences of racist behaviors both on and off campus are comparatively very low; however, some African and Middle Eastern students experience them to a minor degree.

It is thought that the skin color of African students and the established cultural bias or prejudice against Africans is the main result for such experiences. Poyrazli and Grahame [45] discover in their studies, conducted in US, that students who are not white definitively face discrimination off campus. Similarly, Sodowsky and Plake [44] find in their study that Africans perceived more prejudice than other student groups. The results of the study, conducted by Hanassab [37] in the US, suggest that international or foreign students from the Middle East and Africa experienced more difficulty regarding discrimination.

But it is not only the skin color which seems to induce prejudices and discriminating behavior. The result for Middle Eastern students to experience more negative behaviors can be linked to issues of asylum-seeking and refugee status that recently transpired in Turkey [46]. Turkey is experiencing an extreme influx of refugees, especially recently, due to civil wars in Iraq and Syria. That is why there is a negative attitude towards Middle Eastern citizens (especially against Syrian refugees). There are over 3.1 million refugees most of which are from Syria and Iraq who are registered in Turkey [47]; over 2.7 million of these refugees are from Syria. Some studies that are conducted in Turkey concerning how Syrian refugees are considered show negative attitudes in society [46, 48, 49]. These sentiments concur with the results of our study. Great numbers of refugees or displaced people might cause limitations to resources and might affect the stability of host country. It can be claimed that immigration movements, even though people were forced to leave, especially Syrian refugees, aggravated the general negative attitudes towards refugees. In the sense of negative opinions becoming widespread, it is important to consider the way the media portrays the situation. Some reports demonstrate refugees as poor people, fugitives, criminals, problematic people, causing harm to the country, increasing the crime rate, being killer, or rapist, thief, create the negative attitudes and help the distribution of these discriminating, hateful, hostile statements against refugees [46, 50]. As discussed by Ünal [46], the obscurity factor caused by Syrian refugees' temporariness and/or permanence status is a variable that results in people feeling insecure, being concerned about their economic status, and leading them to use refugees as scapegoats who should be driven out of the country.

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These negative attitudes, which are developing mostly against Syrian refugees, also cause an attitudinal change and a negative perception against all immigrants from the Middle East to rise. In this context, it can be claimed that many foreign students who came from the Middle East faced more biased, prejudiced and discriminating behaviors compared to students from other regions. Poyrazli and Grahame [45] also find in their study that students who physically look like Middle Eastern people were identified and treated as terrorists after the 9/11 attack. In a study that researched the experiences of international and local students enrolled at three different Australian Universities, it was seen that two thirds of Asian students described discrimination and bias as a significant problem [51].

Summarizing this part of our study, it can be said that some foreign students, in this case African and Middle Eastern students, faced, more than other students, negative behaviors, prejudices, discrimination and racism because of their ethnicity and cultural background. According to Ramos et al. [1], "they are often targets of racism, face several other forms of discrimination and are also victims of exclusion, isolation and unfriendliness from domestic students" (p. 402). However, it must also be stated that the degree of these negative behaviors towards foreign students in Turkey is not very high.

5.3. Foreign students and migrant or migration networks

Migration or migrant networks can be described as a sum of various interpersonal relations among immigrants. For Massey et al. [52], "migrant networks are sets of interpersonal ties that connect migrants, former migrants and nonmigrants in origin and destination areas through ties of kinship, friendship and shared community origin" (p. 448). Migration networks can also be described as a social capital that can help the foreigners to solve many problems they face in an environment in which they are strangers but may benefit from these networks through various aspects [52, 53].

Maundeni [54] indicates that along with many positive effects, immigrant networks do also have some negative functions. Immigrant networks might cause a person to isolate from the society in which s/he lives. A person who is a member of an immigrant network will spend his/her time mostly with people that are alike. To spend time with people that are alike might be a conscious or unconscious act, yet although sometimes it happens as an obligation, most of the time it is a voluntary act. This situation will cause an isolation problem and has a negative effect on the individuals because they will not integrate or acculturate adequately. Yalçın [55] suggests immigrants will keep living inside their own community unless the opposite is required; as a consequence, their relation with the host country will be weak so that they cannot bond with the host country.

If foreign students do not go out of their migrant networks then communication and interaction with the host society will be limited, hence, weakened, as a consequence, the possibility of experiencing prejudiced and discriminating behaviors might be increased. Another aspect of the situation is that students who face discriminating behaviors are forced to stay within their own networks and might feel to not leave the network unless necessary. For instance, Cederberg [56] points out that "migrant networks fill important functions, not least

by providing support and some opportunities for people experiencing exclusion from various aspects of majority society" (p. 65). Similarly, Ramos et al. [1] claim that perceiving discrimination leads people to avoid the host society and to decrease their ties with the host culture and local people. In other words, they [1] state that "perceiving discrimination is associated with foreign students' perception that they cannot leave their minority group and be part of the host group." This perception in turn increases "individuals' willingness to avoid the host group while increasing a desire to maintain their own culture" (p. 415). Looking at issues of integration, it is important to evaluate in which level foreign students participate within the immigrant networks. In this sense, the subject/person with whom foreign students spent their time in extracurricular hours was evaluated.

Table 10 asks the question "Extracurricular time—with whom do you prefer to spend it?" Looking at the findings, 25.8% of the students prefer to spend their time with students from the same country/region, and 14.8% of the students prefer to spend their time with other foreign students. When evaluated according to the regions, Africa is leading, that is, 32.9% of the students prefer to spend their time with students from the same country/region, and 24.3% prefer to spend their time with other foreign students. In relation to spend time with people of their own background, the second region is South Caucasia with 30.0%, third is Asia by 27.7% and fourth is the Middle East by 23.5%.

	Africa (%)	**Asia (%)**	**South Caucasus (%)**	**Middle East (%)**	**Europe/Balkans (%)**	**Europe/other (%)**	**Total (%)**
Almost with all of them	31.4	42.6	35.0	23.5	47.6	85.7	37.9
Students from my own country/ region	32.9	27.7	30.0	23.5	4.8	.0	25.8
With host students	7.1	17.0	20.0	23.5	38.1	14.3	16.5
Foreign students from other countries	24.3	10.6	5.0	11.8	9.5	.0	14.8
Nobody	4.3	2.1	10.0	17.6	0.0	0.0	4.9
Total	100	100	100	100	100	100	100

Table 10. Extracurricular time—with whom do you prefer to spend it?.

Table 11 examines the question "If you encounter any problem in Aydın, who do you initially consult with and ask for help?" Looking at the aspect, 56.0% of the students prefer to seek help from the students who come from the same country/region, and 14.3% of the students prefer to seek help from other foreign students. When evaluated according to the regions, students who prefer to seek help from other foreign students, and/or prefer to seek help from the students who come from the same country/region have a high ratio in all regions except for the students from Europe/Other.

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	Africa (%)	Asia (%)	South Caucasus (%)	Middle East (%)	Europe/Balkans (%)	Europe/other (%)	Total (%)
Friends from my own country/ region	61.4	55.3	40.0	58.8	61.9	28.6	56.0
My other foreign friends	15.7	12.8	15.0	17.6	14.3	0.0	14.3
My Turkish friends	4.3	19.1	30.0	0.0	14.3	42.9	13.2
Other	7.1	4.3	10.0	0.0	4.8	28.6	6.6
Our foreign student representative	7.1	6.4	0.0	11.8	0.0	0.0	5.5
My advisor at school	1.4	0.0	5.0	5.9	0.0	0.0	1.6
The school management	1.4	2.1	0.0	0.0	4.8	0.0	1.6
Foreign relations office personnel	1.4	0.0	0.0	5.9	0.0	0.0	1.1
Total	100	100	100	100	100	100	100

Table 11. If you encounter any problem in Aydın, who do you initially consult with and ask for help?.

Also, an indicator of the immigrant networks is "foreign or international students associations" which aim to reunite immigrant groups in a country. Today in Turkey, there are 53 different international or foreign student associations located in 44 different cities and most of the foreign students are members of these associations [57]. The aim of these associations is to break ice between foreign students and help them to solve probable social or financial problems.

Tan and Goh [26] argue that "a review of the literature suggests that although universities continue to celebrate the cultural diversity of their student population, cross-cultural interaction among students remains alarmingly low" (p. 651). In this context, our findings show the tendency that foreign students prefer to spend their time with students who are similar to themselves, see people within immigrant networks as the first people to cooperate with in case of need, and the existence of other foreign students is important to them. Several studies suggest [26, 58, 59] that foreign students are constantly building support groups or immigrant networks, which are usually ethnicity based, with very little mixing of cultures. But there is a warning by Ramos et al. [1] "although individuals increase their commitment to their minority group and receive psychological shelter from this group membership, they may see the consequences amplified as they compromise their development of competencies and opportunities in the mainstream" (p. 415). Whatever the reasons, it can be assumed that

foreign students' high dependence on immigrant networks will probably have a negative effect on their relations with the host society. We can emphasize the fact that these networks will cause foreign students to gather in environments where they reunite as groups and to live a life which is independent from the host country.

However, as mentioned, migrant networks have a significant function for the adaptation of immigrants of values of the host society, solving many problems which they face after arrival. Maundeni [54] emphasizes that "members of students' social networks play various roles (both supportive and non-supportive) in their [the students] adjustment." Most network members provide some form of helpful information. Others provide emotional, recreational, financial and spiritual support" (p. 272). As Kashima and Loh [60] state, ties with other international students are significant in terms of their psychological adjustment. Cederberg [56] asserts that migrant networks play various functions such as "providing practical and emotional support, giving access to social information, providing a sense of community and security as well as an opportunity to reproduce one's linguistic and cultural heritage, and facilitating access to further networks and opportunities, including some employment opportunities" (p. 63). In this context, our findings show that foreign students have comparatively little difficulty in adapting to the city in which they live. It is assumed that this may be due to the fact that they participate in such an immigrant or migrant network.

5.4. Sustainability and stability of the foreign student migration

The sustainability and stability of foreign student migration to any country or city is dependent on the nature of relations and interactions between pioneer immigrants and others through established or to be established social networks. For Haug [53], "social networks provide a foundation for the dissemination of information as well as for patronage or assistance. Interactions within the social networks make migration easier by reducing the costs and risks of moving" (p. 588). According to Arango [61] "many migrants move because others with whom they are connected migrated before" (p. 291–292). Considering the multi-dimensional effects of social networks [through the relations between pioneer immigrants and potential immigrants] chain migrations are supported [53]. In this context, definition of network migration can be described as a terminology used for describing the chain migration process. Namely, Wilpert [62] emphasizes that pioneer immigrants primarily build a bridge between societies of emigration and immigration; new migration waves activate already established networks and immigrants benefit from the experiences of pioneer immigrants.

Immigrant networks are significant tools because they hold a status of a good news channel for those who stayed in the homeland and also for displaying a significant structuring for controlling sustainability and speed of migration [55]. In this way, we can say that many studies regarding migration demonstrate that social networks are an important determination factor for people to decide to migrate and to choose where to [53, 62, 63].

As is the case with the all migration attempts, people tend to immigrate for a particular purpose. To what extend immigrants are satisfied will be decided on the basis of the quality and the scope of the chain migration and immigration networks. Therefore, how the migrants evaluate their experiences in the place they migrated to is of great importance because the

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experiences of the foreign students, as to whether their expectations are met or not, will play a key role in the continuation and the scope of further immigrations. The level of foreign students' satisfaction, their negative and positive impressions and general perceptions are important. Therefore, the research tried to examine students' level of satisfaction regarding living in Turkey.

Table 12 asks the question "In general, how satisfied are you with living in Turkey?" When evaluating the total, 13.7% of students are "very satisfied," 46.2% "satisfied" and 30.2% are "partially satisfied." On the other hand, 6.6% of students are "not satisfied" and 3.3% are "extremely dissatisfied." When evaluated according to the regions, students who claimed to be "satisfied" and "very satisfied" are those from Europe/Balkans (85.7%), Europe/others (71.4%), Asia (61.7%), South Caucasia (55.0%), Africa (54.3%) and the Middle East (47.1%), respectively. It was seen that students from different countries are generally quite "satisfied," yet their satisfaction levels are different. On the other hand, the ratio of students who are "not satisfied" is very low with respect to all regions.

	Africa (%)	Asia (%)	South Caucasus (%)	Middle East (%)	Europe/Balkans (%)	Europe/other (%)	Total (%)
Very satisfied	8.6	12.8	30.0	11.8	19.0	14.3	13.7
Satisfied	45.7	48.9	25.0	35.3	66.7	57.1	46.2
Partially satisfied	37.1	25.5	35.0	41.2	4.8	28.6	30.2
Not satisfied	7.1	6.4	5.0	11.8	4.8	0.0	6.6
Extremely dissatisfied	1.4	6.4	5.0	0.0	4.8	0.0	3.3
Total	100	100	100	100	100	100	100

Table 12. In general, how satisfied are you with living in Turkey?.

The very same aspect will affect the decision of the foreign students to continue or not to a higher level of education when their current program is completed, or to keep living or not in the same country (Turkey); this relates to the stability of the migration. In trying to explore this point, students who participated in the research, were asked, if given the chance would they like to stay in Turkey, and to what extent would they be willing to live the rest of their lives in Turkey.

Table 13 investigates the question "If offered the possibility, would you like to stay/live in Turkey for the rest of your life?" About 13.7% of the students stated their opinion as "I would very much like to," 24.7% stated their opinion as "I would like to" and 39.6% stated that they are "not sure" concerning the matter. On the other hand, 15.4% of the students stated their opinion as "I would not like to" and 6.6% of the students stated their opinion as "I would never like to." When evaluated according to the regions, students from Europe/Balkans, the Middle East, Asia and South Caucasia stated that, if given the chance, they would like to stay in Turkey and maintain their lives in Turkey. Students from Africa and Europe/other, on the other hand,

displayed a comparatively lower interest in staying in the Turkey. In general, foreign students show a tendency of 38.4%—which is a significant rate—to stay in Turkey permanently.

	Africa (%)	Asia (%)	South Caucasus (%)	Middle East (%)	Europe/Balkans (%)	Europe/other (%)	Total (%)
I would very much like to	11.4	12.8	25.0	23.5	9.5	0.0	13.7
I would like to	14.3	27.7	25.0	29.4	52.4	14.3	24.7
Not sure	51.4	27.7	40.0	23.5	33.3	57.1	39.6
I would not like to	15.7	21.3	10.0	11.8	4.8	28.6	15.4
I would never like to	7.1	10.6	.0	11.8	0.0	0.0	6.6
Total	100	100	100	100	100	100	100

Table 13. (If possible) Would you like to stay/live in Turkey for the rest of your life?.

The data regarding the decision of the foreign students to continue or not to a higher level of education when their current program is completed, or to keep living or not in Turkey displays a significant potential of foreign students to acquire a permanent residency. Although foreign student migration is seen as a kind of temporary migration, it might turn into a permanent one after a while.

In the end, positive and negative experiences of foreign students throughout their education career in Turkey, their feelings and impressions which they will tell when they go back to their homeland, have a determinative power on people who plan to come to Turkey to study. Thus, information conveyed by foreign students in Turkey based on their experiences will have a great influence on other students who want to "migrate" to Turkey for educational purposes. In this context, students located in Aydın were asked if they would recommend studying in Turkey to a relative of theirs who is planning to study abroad.

Table 14 analyses the question "Would you recommend Turkey to someone close to you who decides to study abroad?" About 51.6% of the students stated their opinion as "yes, I would," 25.3% stated their opinion as "perhaps I would" and 11.0% stated that they are "not sure." On the other hand, 12.0% of the students stated their opinion as "no, I would not." When evaluated according to regions, it was seen that there is a positive tendency of all regions to recommend studying in Turkey.

People studying in foreign countries face a variety of experiences, both negative and positive. Some students overcome the problems easily, for others it could be difficult, and for some it may be impossible to overcome the problems. In this process to adapt, personal and demographic features of students, economic, cultural, religious and geographical conditions of both in the homeland and in the host country play facilitating or complicating roles. In one way or another, students will reach a general conclusion or opinion during their time in the

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host country. According to our findings, it can be claimed that foreign students, who stayed in Aydın, will play a positive role in relation to sustaining student immigration and making Turkey a more permanent to live. This conclusion is based on our foreign students' general satisfaction with Turkey. In other words, the level of foreign students' satisfaction regarding education and living in Turkey will be a positive reference for those who are willing to become an actor for cross-border mobility for educational purposes.

	Africa (%)	Asia (%)	South Caucasus (%)	Middle East (%)	Europe/Balkans (%)	Europe/other (%)	Total (%)
Yes I would	47.1	59.6	50.0	17.6	81.0	42.9	51.6
Perhaps I would	30.0	19.1	15.0	47.1	14.3	28.6	25.3
Not sure	14.3	6.4	15.0	11.8	0.0	28.6	11.0
No I would not	8.6	14.9	20.0	23.5	4.8	0.0	12.0
Total	100	100	100	100	100	100	100

Table 14. Would you recommend Turkey to someone close to you who decided to study abroad?.

6. Conclusion

Recently, the interest of international or foreign students to study in Turkey has become a trend because of Turkey's historical and cultural profoundness, geographical advantage; intercultural and multi-cultural status grab attraction both from Eastern and Western countries. For Kadıoğlu et al. [5] foreign students become a significant tool of development and production goals by staying in the host country after completing their education or become a cultural ambassador, after returning, through building political, social, cultural or trading relationships between the host country and their homeland. In this context, when evaluated through social, economic, cultural and political aspects, international or foreign students' importance gradually increases for the host countries. Judging from this point, countries compete with each other to attract more foreign students. They also try to apply future plans and strategies for the sake of the same goal, that is, attracting foreign students. In this context, countries promote themselves by using profile-raising activities, and the impressions left on current students become significant. In the same aspect, use of today's information technology and the flow of personal information enable people to share their experiences concerning countries and cultures easily and rapidly. Therefore, students who have thoughts about studying abroad are primarily using online social networks and platforms (these platforms are mainly online websites in which students who study or studied abroad share their personal experiences) to gather information regarding the country which they are planning to go to. Thus, since such a flood of information reaches many people quite rapidly, these tools become way more important than information and promotion executed by countries on an institutive basis. Because information that comes directly from a person based on his/her experiences and feelings are seen much more valuable compared to information which is corporate and not based on real experiences.

To that end, this research was based on the experiences of foreign students who came from different regions/countries and were enrolled in Adnan Menderes University of Aydın, a medium-sized city in Turkey. When data regarding the level of experiencing prejudices and discriminating behaviors is evaluated, it was seen that students faced such behaviors more in their lives off than on campus. According to the region or country the students came from, it was found that students from Africa and the Middle East recorded both on and off campus experiences to a higher degree than students from other regions and countries. Both on and off campus racist behaviors is seen at very low levels. However, it can be stated that students from Africa and the Middle East experience, although at low ratios, some behaviors that can be considered to be racist. It is thought that the skin color of African students and the established cultural bias against Africans is the main result for such inconveniences. Similarly, the reason for Middle Eastern students to face such negative behaviors is being linked to recent problems of asylum seekers or refugees in Turkey. Some of the negative attitudes directed especially against Syrian refugees are also reflected in other immigrant groups coming from the Middle East, and it is possible to claim that there is a general negative attitude towards the whole region. Therefore, it is possible to claim that foreign students who come from Middle Eastern countries might face biased, prejudiced, discriminating behaviors at a larger scale compared to foreign students coming from other regions. However, despite everything, the degree of these negative behaviors towards foreign students is not very high.

In general, it was seen that foreign students choose to spend most of their time with students that come from the same country or region and, although they do not have a problem with students of the host country, they still have limited interaction and communication with them, that is, during course hours most of the time. The tendency of foreign students to spend their time with other foreign students in a foreign country could be seen as normal. However, the fact that foreign students do not go out of their immigrant network causes them to have limited interaction and communication with members of the society in which they live; hence, it weakens their connection with the society. The situation could be seen as a variable which increases the possibility of facing prejudiced and discriminatory actions. Also, from the foreign students' perspective, facing such behaviors might cause them to form closer connections with their immigrant networks and not to leave it. Therefore, there is a two-sided relationship between immigrant or migrant networks and facing discriminating behaviors. As a function of social networks, these networks are a key factor for foreign students to solve many problems that they face in their chosen society and try to survive in a new environment. Our results show that foreign students had little difficulty in adapting to the city in which they live, and this could be explained by a fact that they are a part of such an immigrant network.

Finally, it was seen that foreign students who come from different regions/countries of the world have generally a positive impression of Turkey, and their experiences were optimistic regarding the country and their studies. The limited amount of prejudiced, discriminating actions or statements that were faced by foreign students did not affect their impressions or feelings about Turkey. But it can be stated that students coming from Europe/Balkans, Europe/Other, Asia and Africa had generally a more positive attitude compared to that of students coming from the Middle East and South Caucasia.

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The assumption that positive impressions and experiences of foreign students may have an effect on students who are coming or are planning to come to Turkey is important. The tendency of foreign student migration to study in Turkey will gradually increase because, internationalization of education, growth of mass communication and transportation, increasing density of relations between pioneer student immigrants and potential student immigrants, will all have an increasing effect on speed and sustainability of immigration for educational purposes. With many negative and positive functions, immigrant networks are an important social mechanism that increases the desire of people to migrate, speed of migration and sustainability of migration. This can be seen clearly in the increased number of foreign students in recent years that are enrolled at universities in Turkey. Therefore, data of the research proves that, based on the example of Aydın Adnan Menderes University, foreign student migration to universities located in medium-sized cities will increase over time, can gain sustainability and frequency and will boost the student profile to be more cosmopolitan in future.

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Section 6

Emigration and Gender

Chapter 13

The Voice of Trailing Women in the Decision to Relocate: Is it Really a Choice?

Ortal Slobodin

Additional information is available at the end of the chapter

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Abstract

The reasons for migration among highly skilled couples are economic as well as noneconomic. However, our understanding of the motivations of trailing wives remains somewhat limited, especially given their loss of personal, professional, and social resources during the relocation. This chapter explores the motivations of women to relocate for their husband's work. It examines how gender ideologies weave with the decision to relocate, and how women's considerations and preferences are taken into account during this process. This study included depth interviews with 12 trailing mothers in the Netherlands and in the United States during 2015–2016. Interviews were performed face-to-face or by video chat. The study used an interpretative phenomenological analysis (IPA). Narratives analyses revealed that most trailing wives exerted very limited agency during the decision process and felt that they do not have any realistic alternatives to relocation. This powerlessness was imposed by gender-role ideologies that portray women as the primary care provider and men as the primary breadwinner. Thus, women's motivations to go overseas were primarily centered on family benefits, such as improving the family's financial status or supporting their husband's career. These findings suggest that societal factors, mainly gender, significantly diminish the actual choice options available to trailing wives.

Keywords: choice, decision, gender, relocation, trailing-spouse

1. Introduction

Job-related relocations become increasingly common among highly skilled families [1]. About 90% of all expatriates, employees accepting an international assignment, are accompanied by their relationship partner, or the "trailing spouse" [2], resulting in a simultaneous impact in residential, work, and family domains for all the family members [3]. It should be mentioned

that the term “trailing spouse” is often criticized for overlooking spouse’s human agency [4] and is sometimes replaced by "tied mover" or "relocated partner". Nevertheless, for some scholars, the term genuinely reflects the inherent sense of powerlessness, or as expressed by Swanson [5], a feeling of being “second -class”.

For dual-career couples, the decision to relocate entails new tasks and responsibilities which in turn give rise to feelings of imbalance and injustice [6]. Studies consistently suggest that the trailing spouse plays a key role during expatriation in terms of willingness to go, assignment completion, expatriate adjustment, and expatriate performance [7–9]. Mainly, the spouse’s dissatisfaction is usually the reason for premature termination of relocation contracts [10, 11].

Family migration is predominantly husband-centered for married couples, suggesting that gender roles and gender identities form the basis of relocation decisions. Relocation takes place much more frequently for the benefit of men’s careers, while women are less likely than men to migrate for their own careers [12, 13] and are more likely to turn down a job offer in another country [14]. Zvonkovic et al. [15] found that women, even in couples who consider themselves as having similar values and openly expressed opinions, take the secondary position in work-related family decisions. According to the human capital framework, the family’s decision to move is based on estimation of how to maximize its joint utility or income [16]. Interests of the higher producing member (assumed to be the one with the most human capital) will be weighted more highly in the accounting. However, studies suggest that the decision to relocate is based on traditionally accepted gender roles, in which men’s careers are prioritized in family migration decisions, regardless of the net change in household income [17–19].

Alternatively, gender-role theories argue that while women are expected to place family ahead of personal goals and to have ultimate responsibility for reproductive activities, men are expected to assume the position of primary breadwinner [20]. Therefore, women defer to their spouse's interests on questions of his job-related decisions but they place family considerations first on questions of their own job-related decisions [21, 22]. Support for this theory can be found in Whitaker’s work [23], which studied move decisions among husband- centered and wife-centered relocation. The study showed that the relocation decisions and experiences were based on primary gender identities of man, woman, father, and mother. Regardless of which gender served as move center, the husbands’ primary frame centered on the topic of breadwinning, even if they were not the sole or primary breadwinner, while women's frames always incorporated implications for family happiness and well-being, even if they were the sole or co-breadwinner. Another study, which explored women’s willingness to expatriate, revealed that although women are generally willing to relocate for their own careers, family factors lead to married women being less able to transform their motivation into an international job search than men or single women [13]. An alternative explanation for the tendency of households to relocate for husbands' careers is that women are segregated into geographically dispersed occupations. In contrast to men who choose careers in fields that are geographically constrained, women enter professions that make it easy to work anywhere [24].

Although the trailing spouse role in the decision process is significant for adaptation and satisfaction, there is relative lack of research providing more in-depth understanding of the psychological aspect of the decision to relocate. One such study, which explored psychological

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adjustment among expatriate couples, revealed that shared agreement on relocation has no real influence on conflict and psychological adjustment. Rather, it is the quality of interpersonal communication that affected the couple's well-being, namely, the politeness, dignity, and respect in which they treated each other [25]. Whitaker's [26] early investigation, which focused on the decision to relocate from the trailing spouse's perspective, pointed to an underlying power imbalance between husbands and wives. Derived from traditionally gender-role ideologies, women had a sense of powerlessness and/or internalized the belief that their husband's endeavors are more important than their own. Such findings raise serious questions regarding the actual choice of trailing women, during what is usually considered a shared agreement process. It is not clear how much power and agency women have in this decision, how freely it can be negotiated, and which societal forces limit or diminish the actual choice options available to them [27].

This chapter reconsiders the issue of "choice" in the decision to relocate through the eyes of trialing spouse. This research is grounded in theoretical perspectives on gender roles, which assume that gender roles, ideologies, and identities form family decision to relocate. With the aim of giving voice to expatriate women, this study was focused on identifying the process and influences that lead to decisions to relocate.

2. Method

2.1. Participants

Interpretative phenomenological analysis (IPA) provides a deep insight into the quality and texture of individuals' experiences. It is interested in the nature and essence of people's personal and social worlds and in the meaning they give to a particular phenomenon. IPA is considered the qualitative methodology of choice when the focus is on individuals' lived experience, and thus is applied in sociological, psychological, anthropological, and healthcare research [28, 29]. Typically, IPA involves detailed analysis of verbatim accounts of a small number of participants, usually through semi-structured interviews [30, 31]. Purposive sampling techniques ensure a homogeneous sample of participants with common characteristics and experiences [32]. Twelve women participated in this study and strove for a degree of uniformity across cases, whereby all women were between 27 and 42 years of age, had children, and held a job prior the relocation. Interviewed women had an academic education, ranging between 15 and 21 years of schooling. All of them were at least 6 months into their relocation period at the time of the interview. Two women experienced multiple relocations (with maximal number of 3 locations).

Given the different importance of resources and proximity for families with children and without children, only women who moved with one or more dependent children under age 18 were included.

2.2. Procedure

Recruitment was conducted using snowball sampling, in which research participants are asked to assist researchers in identifying other potential subjects. In addition, an invitation to participate was published in a Facebook group for expatriate mothers.

Interviews were performed using two strategies: face-to-face or by video chat. Face-to-face interviews were held at the participant's home or in a natural place, according to the interviewee's preference. There was high interest in participation. To ensure the maintenance of confidentiality, names were changed, and specific stories were not used if this allowed individuals to be identified. The interviews were audio-taped, lasting 90–120 min. Interviewer notes were taken following the interview.

2.3. Data analysis

The analysis began with a detailed reading of the transcript to acquire a feeling for the essence of the phenomena. Significant statements and phrases that directly pertained to the phenomena were extracted. Then, meanings from the significant statements and phrases from the interview were formulated and organized into themes. Further, the emergent themes common to all of the participants' descriptions were organized, by comparing each individual's transcript with the transcript of other individual women. Themes, which emerged after analyzing each new transcript, were added to the categories of themes which had already occurred. Finally, the results of the data analysis were integrated into an exhaustive description of trailing women's experiences [33].

3. Results

Participants in this study listed multiple themes within their decision to relocate, including economic considerations, supporting husband's career, improving children's well-being, and solving a problem in their workplace.

Most women placed their husband's career as the primary reason to relocate. For some families, limited professional opportunities in their homeland led men to seek employment abroad. For others, such as academic scholars, moving to another country was a necessary step in men's (husbands) careers. However, a close look at women's (wives) narratives revealed that the relocation was often experienced as the only possible route, preventing an open discourse on the relocation decision.

Rita, a wife of a postdoctoral fellow, exemplified how limited their options were.

> "Since the day we met, I knew that he must conduct his post-doc abroad. It is a dream that I could not take away from him. It is an essential part of his career. It was: take it or leave it. It was a package deal".

Her words illustrate that reconsidering the move was not an option; not only for her husband but also for herself.

Likewise, Sara described the relocation as an inevitable part of her husband's professional development and therefore as a fundamental part of their relationship.

> "When we started dating, in our third date, he said that we will eventually have to move for his fellowship and if there is a problem I should say it right away. I said that I would be happy to move and then he decided to marry me. After eight years of marriage, it was clear that his professional development necessarily involves a fellowship abroad".

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The experience of "take it or leave it" reflects the constrained way of thinking, which leaves very little room to consider alternatives to relocation. It was common among interviewees to feel that supporting their partner in the relocation process is a part of the relationship contract, and by not moving they might explicitly or implicitly threaten their marriage. As clearly expressed by Julia:

> "My husband searched a job for a long time and could not find any suitable one. When the offer to relocate arrived, I knew that it was either to relocate or to separate. That he could not give it up. I remember the moment of decision; to separate or to relocate. I did not think what it means for my career or for me as a woman. I did not consider those things. It was either to take the job and move or the end of our marriage."

Related to professional considerations, enhancing the family's financial status was also mentioned as a central motivation to relocate. For many expatriate families, moving abroad implied not only a temporary improvement in their quality of life, but an essential course that will ensure the family's financial future. Some of them, like Tessa, felt that because their husband was the main breadwinner, they could not reject a potential improvement in their financial status.

> "We were waiting for an opportunity to relocate for a long time. We were O.K with money but it was never enough for what we needed and wanted. The children were about to begin college and we needed the extra money to support them. I was working only part time as a teacher and my income was secondary, so we decided that I will give it up and we will move abroad."

Another motivation to relocate was the women's desire to improve children's well-being, either by providing them a chance of living abroad or by reducing husband's travels. Shelly, who decided to relocate in order to join her husband abroad, was willing to move in order to keep the family together.

> "For a certain period, around 6 months, my husband was away every week from Monday to Thursday. It affected my son badly…he cried all the time. I did perfectly well by myself, but my son had a hard time without his father around. As a mother, you have to think about everybody. I was the one who initiated the move; we have to live together as a family".

When women were directly asked about their own motivation to travel, they often indicated that the relocation was an opportunity to change an undesirable situation, usually in their workplace. Some of them were looking for a better work-family balance and could not achieve it financially or professionally. As described by Helena, who used to be a busy lawyer:

> "My work was very intensive and required long hours. I wanted to leave my job for many years since I became a mother. The relocation was a good opportunity to leave it once and for all…to rest, to be a mother, a perfect opportunity for a change".

Two women pointed out that the relocation allowed them to leave an undesired workplace that otherwise would make their leaving very difficult.

Even when women's career was considered during the decision making process, it was usually given a second priority. Tanya, a mother of three little children, indicated that her professional future was an important consideration in the decision process. She and her husband looked for a place where she could accomplish her PhD. while he worked for an international

company. However, she emphasized that her professional aspirations could have never been the primary reason to relocate, as her potential income would not permit it.

> "We would have never dreamt of relocating only for my doctoral fellowship…we could not afford that. In theory, we are leading an equal household. In practice, I am the only one who picks up the kids at 3 PM. An adventure for my career always pays less than an adventure for his career."

An important finding of this study was that many women were not truly involved in the decision process. Instead, they described an emotional detachment and withdrawal during the decision to relocate, which sometimes lasted months after the move. These women somehow "found themselves" participating in a crucial step without being aware of its consequences. Daphna, a mother of two boys illustrated this type of detachment.

> "My husband and I were always discussing the idea of relocation, but I have never thought that we will actually do it…and then things started moving forward. We got a visa, we found a house, we registered in school, but somehow during the whole process I was absolutely sure that it would not happen. I am a person who resents changes. It was very difficult for me to move from one neighborhood to another even in the same city. I am very close and dependent on my mother. Nobody believed that I could take such a step".

Similarly, Julia described how her flawless functioning during the pre-relocation period existed in parallel to extreme emotional disconnectedness.

> "I packed the house, arranged farewell parties for the kids, finished my work issues perfectly, but still was unaware for the step we are taking…Probably, if I would fully consider it, I would not have done it. There are moments in life when it is better not to understand too much…and to make mistakes. It was the only way I could leave the safe world I was living in. It was a sort of denial."

These texts suggest that by excluding themselves emotionally and cognitively from the process, women are able to make important decisions and undertake crucial steps that would, if aware of the full consequences, be too difficult for them to undertake [34, 35].However, it is clear that in addition to depowering women, this "unconsciousness" limits their ability to process the pros and cons of moving abroad. Nina, a clinical psychologist, who followed her husband abroad for his fellowship in cardiology, exemplified how her emotional withdrawal hindered a true understanding and preparation for relocation.

> "For a long time, my husband looked for a fellowship in cardiology abroad. I knew how critical it is for him, so I said immediately yes, we are moving. Somehow, I was not able to consider what it means for my career. I thought that I could work everywhere, as I speak fluent English and there are many expats where I live. I was very busy before the move…taking care of the children, worrying about their adjustment… I did not have the time or energy to think about the consequences. Only months after moving here I realized that I don't have a professional work permit here and it could take years until I get one. It was totally unexpected and frustrating".

4. Discussion

The decision to relocate is the initial step in the relocation process and obviously a crucial one. The way through which the decision is made, the voice of each partner in the process, and

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their motivations to move abroad, play important roles in adjusting to the new culture [36]. This phenomenological study, which was undertaken during 2015–2016, focused on the trailing spouses' points of view during the decision-making process and on their explanations in order to understand how much agency and power they experienced.

Despite the apparent heterogeneity in reasons to relocate (e.g., supporting their husband's career, improving economic status, solving a problem in the workplace, or improving children's well-being), close analyses of the women's narratives suggest that for many women, relocation is not a real choice. Rather, societal factors, mainly gender, significantly lower the actual choice options available to them [26, 27]. In fact, in a way that resembles other family arrangements, such as commuter partnership [37], substantial sacrifices are demanded of women in order for their partner to pursue a real choice.

Previous research on the decision to immigrate consistently showed women's powerlessness in the decision to relocate [38]. Women are less involved in the decision process and are less likely than men to claim ownership of the idea to immigrate [39, 40]. This powerlessness is imposed by gender-role ideologies that portray women as the primary care provider and men as the primary breadwinner. In line with previous research [41, 42], trailing women in this study made the choice to go overseas based on the viewpoint that their role in the family, in the reproductive realm, is subordinate to their husband's role in the working world, in the productive realm. Their motivations were centered on the family benefits having to do with nurturing, not just economics; but to ensure the husband's satisfaction, to provide better educational opportunities for the children, or to decrease work-family tension by becoming stay-at-home mothers. Braseby [4] argued that although trailing women may exert some degree of agency in their choices to move overseas, very often they do not have agency in the gendered social norms that view working and motherhood as antithetical. Interestingly, the professional women in this study were attracted to the idea of relocation as a mean of improving family-work balance. These women felt that the burden of family and career duties involved heavy personal and family costs and they looked for an "objective" force that would allow them to quit their jobs. They were looking for an opportunity to liberate themselves from some of the gendered societal expectations to be a perfect mother and employee and from the heavy guilt associated with the constant failure to achieve such impossible goals [43].

Considering the issue of choice in professional women who became stay-at-home mothers in some more detail, several academics dispute that there is a disjuncture between the rhetoric of choice and the reality of structural constraints when women decide to leave their career for their children [44, 45]. Stone and Lovejoy [46] suggested that the rhetoric of "choice" for women has been oversimplified into a dichotomy of staying at home or working. Their study revealed that in most cases, women did not feel that they were free to follow their personal preferences, but rather felt that it was impossible to perform well in both spheres if carried out at the same time, mainly due to inflexible workplace situation [47]. In her book, "Total madness", Warner [48] debates, that what seems like a free choice between working or staying at home could be considered as real choice only for upper class women, who own enough resources to afford high-quality child care or to give up work. Most women, however, are obliged to work in order to support their families. Those who are forced to quit the labor force do it because their partners are working many hours, or because of too rigid job demands. International relocation may be considered as

another manifestation of work-family conflict, as it hinders women's professionality, often irreversibly [49, 50]. Trailing women are pushed out of the labor market by a combination of social and cultural factors: Immigration rules that limit trailing spouses' job opportunities, difficulty in getting professional working permits, enhanced family needs during the relocation, reduced involvement of their partner in the household, and lack of a supporting network [51]. As a result, women felt that they do not have the time, energy, or availability to reestablish their professionality in the new country. Instead, they achieved a sense of self-esteem and efficacy through emotional and practical intensification in gender-based roles, such as extensive involvement in children's academic, social, and psychological lives and increased activity in the household [4].

Central to the decision making process of trailing wives was an emotional and cognitive detachment, a temporary "unconsciousness" that probably distanced feelings of anxiety, loss, or resentment towards relocation. Data analyses of this study showed that this sometimes adaptive mechanism was clearly associated with power imbalance between the trailing women and their male partners. Whitaker's research [23] similarly suggested that women were caught in a tide of something that was happening with the unspoken understanding that if they wanted to stop the course they were on, they would have to step forward with a refusal. Although couples discussed the move with each other, it was usually working through of issues and concerns and less a real open question whether to take the job or refuse it. Not surprisingly, this power imbalance increased with the years abroad and with the number of relocations. Being out of the workforce for extended periods of time in addition to constant moves did not permit women to reestablish themselves professionally, so that eventually they had no power to say no to the next move. Such massive withdrawal among professional and successful women seriously questions their sense of agency. According to my interviewees' perspectives, detachment was aimed not only at allowing effective function, but was the only way they could agree to relocate. This mechanism suggests that trailing spouses are facing high degrees of ambivalence and anxiety regarding the move, which could only be perceived as personal flaws [23]. Emotional detachment was heavily associated with the conscious or unconscious sense that refusal to relocate may threaten the stability of the situation or even the existence of their marriage. Notably, trailing men in Braseby's study [4] never experienced such conflict between marriage and relocation.

5. Limitations

This research serves as an exploratory step in identifying processes and influences that lead to decisions to relocate. As such, several limitations must be considered. First, the sample is composed of women who agreed to relocate. Therefore, certain ideologies and practices observed here might not be generalized to families who decided not to relocate. There is evidence to suggest that when the labor incomes from husbands and wives are more equal, the probability of migration falls dramatically [52]. Moreover, partners in egalitarian partnerships are more inclined to consider other arrangements to relocation (e.g., commuter partnership), which fit their approach of reinforcing each other's interests and commitments [37]. Another limitation is related to the snowball sampling strategy. This method tends to generate a sample that is

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unbalanced in selected demographic characteristics. For example, this study included women of high socioeconomic status (including advanced education levels) who are likely to be responsive to invitations to participate. While snowball sampling has the advantage of helping researchers to identify potential study participants, it tends to be biased towards favoring more cooperative individuals and those that are part of a specific personal network. Thus, it is not possible to determine whether this sample also represents eligible participants that were not located [53]. Finally, as a cross-sectional study, it did not consider long-term consequences of relocation on women's agency or on the effect of relocating back to their country of origin. Future research should explore how gender-role ideologies are further modified during the relocation period and following repatriation. It would be important to investigate the agency of trailing women in the decision to repatriate and to what degree this decision is gendered.

6. Conclusion

This phenomenological sociological research project was conducted in 2015–2016 and considered 12 trailing women (wives and mothers) in the Netherland and in the United States. The aim was to establish the degree of agency or power these women had when their husbands and fathers of their children needed to relocate into a different country in order to further their professional career. Interpretive phenomenological analysis was used to explain the answers provided during interviews. The study found that the decision to relocate reflects a range of interconnected forces which for many couples are not part of a conscious migration strategy. Similar to previous studies with trailing women [4, 23, 26], traditional gender-role ideologies that view males as breadwinners and females as nurturers framed the families' decisions to move abroad. As much as those ideologies influenced the careers women pursue, the wages they negotiated, their professional aspirations, and the division of labor in the home, they also affected the women's decisions to become trailing spouses. Limitations of this study include the use of snow-ball sampling method, which interferes with generalization, and applying a cross-sectional design, which does not allow the exploration of long-term consequences of relocation.

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The UNHCR assures us that never before have there been so many people on the move at the same time, mainly because of war-inflicted circumstances. Authors from different reputed institutions share their knowledge on this open-access platform to disseminate their knowledge at the global level. This book captures issues involved in meeting the challenges of people's movements in the twenty-first century. It explores attitudes of previously colonized people in a post-colonial period, analyses food insecurity in Canada, quality of life of elderly Turkish and Polish migrants in Germany, suicidal behaviours of immigrants admitted to an Italian-teaching hospital, and migration from a public healthcare perspective and points to the problem of tuberculosis among immigrants. Challenges of a more personal nature relate to second-language learning and acculturation of Brazilian migrants in Portugal and Asians as model minorities. Empirical evidence of why immigrants leave Norway is provided, and there is a discussion on the new actors of international migration (foreign students). This book closes with the voices of trailing women when it comes to the decision to emigrate. The collective contributions from experts attempt to provide updates regarding ongoing research and developments pertaining to migration.

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