IMPACT OF INTERNATIONAL MIGRATION ON MENTAL HEALTH

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ABSTRACT

This paper examines the impact international migration has on the mental health of an individual combined with other factors. We look at the various factors that might be a motivation for individuals to migrate including studies, employment opportunities, marriage or to escape political and religious persecution. It is observed that a number of factors are responsible for impacting an individual's mental health. They range from lack of support system- family or friends- culture shock, socio-economic challenges, acculturation, discrimination, health etc. While some factors affect both men and women equally, women face even more problems. An ordered probit model is used to measure the impact of migration on mental health with it ranging from poor to moderate and good. We find that migrant status has a serious impact on an individual's mental health. Proper policy formulation and implementation is required to make the migrants feel safe and achieve optimum results.

Key words: Mental health, migration, women, immigrant workers

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BONAFIDE CERTIFICATE

This is to certify that this project report titled "**Impact of International Migration on Mental Health**" is the bonafide work of **Ms. Nivedita Bobal**, who has carried out the research under my supervision. Certified further to the best of my knowledge, the work reported herein does not form part of any other thesis or dissertation on the basis of which a degree or award was conferred on an earlier occasion on this or any other candidate.

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CHAPTER 1

INTRODUCTION

The United Nations defines an international migrant as 'someone who changes his or her country of usual residence.' Migration is a process of population movement either across an international border or within a country (Delara, 2016). It comes with enormous challenges for immigrants that influence their mental health. As of January 2021, out of 447.2 million total residents in the European Union (EU), 23.7 million were immigrants (Nyikavaranda et al., 2023).

Migration occurs within nations, across international borders, and between continents. Voluntary migration occurs primarily in pursuit of opportunities, such as education, employment or a higher standard of living. Involuntary migration tends to occur in circumstances of socio-political conflict or natural disaster (Kazemipur & Halli, 2000).In an era marked by unprecedented global mobility, the interaction of immigration, socio-political scenario, and their impact on environmental and health landscapes have become a pressing concern. The current study aims to explore\ , how these factors intersect with mental health issues for migrant populations with a special focus on women.

An individual can choose to immigrate for any reason. It can be environmental or social factors- high level of pollution, no employment opportunities, war, famine, strife etc. The immigrants themselves may differ in race, ethnicity, legal status, generational or personal wealth and other socioeconomic factors. A large number of immigrants enter countries through illegal means. These people thus are not examined or counted in surveys. Their possibility of deportation remains very high. Stress also becomes an important factor affecting mental health. This is part of the reason that public policy planning for the long term remains vital to any country and its public health.

Good Mental health is not merely the absence of infirmity or stress. It is the positive foundation for an individual and a community. Galderisi et al (2015) also defines mental health as mental well-being in which an individual realizes his or her own abilities, can

cope with the normal stresses of life, can work productively and is able to make a contribution to his or her community.

1.1 Evidence of Migration: International and National

According to the United Nations Population Division, by 2020, almost half (51.6%) of all international migrants to Europe were female. Transnational immigration stood at 281 million per year in 2020 (Fong et al, 2022). This includes documented immigrants, undocumented immigrants and refugees. A significant number immigrate to study and then continue to stay as migrants. In the past few years, children migrating unaccompanied has risen. According to the United Nations Department of Economic and Social Affairs (UN DESA), the estimated number of people aged 19 or under living in a country other than the one where they were born rose to 36 million in 2017 – an increase of 21 percent compared to 1990.

In 2017, 18.8 million people in 135 countries were newly displaced due to sudden-onset disasters within their own country. This is in addition to millions already living in displacement following previous disasters; between 2008 and 2016 an estimated 227.6 million people were displaced by disasters (IDMC, 2017). With the passage of time and more wars in Ukraine, Palestine and the Middle- East, the number of refugees has only risen sharply. The advent of Taliban rule in Afghanistan and the wars in Yemen and Sudan have caused a number of individuals to migrate as asylum seekers.

In India, the biggest example of migration remains the India Partition of 1947. It led to a number of mental health disorders among the population (Malhotra, A. 2017). In a study conducted in Lucknow, it was found that the occurrence rate of psychiatric disorders among the migrated refugee population (who came to India after partition) was 9.6% compared to the non-migrant local population, which was 4.2%. The migrants suffered for more than 10 years on average and belonged to the older age group. (Sethi et al 2021).

1.2 Issue of Mental Health

The World Health Organization (Michaud and Fombonne, 2005) defines mental health as a “state of well-being whereby individuals recognize their abilities, are able to

cope with the normal stresses of life, work productively and fruitfully, and make a contribution to their communities." Mental health is described as any illness with significant psychological or behavioral manifestations that is associated with either a painful or distressing symptom or an impairment in one or more important areas of functioning (Sim et al., 2019). It affects different age groups differently and is harder to measure in adolescents due to their fluctuating emotions and hormones (Michaud and Fombonne, 2005). About 792 million people all over the world are affected by a mental health disorder according to a study by Ritchie and Roser (2018). Any living person can experience mental health issues. There need not be a unique or individual reason for it. It can affect anyone from a teenager going through puberty to a senior citizen who may be depressed or have PTSD (Post Traumatic Stress Disorder). PTSD and depression are more common for migrants who may have suffered huge losses (Furnham and Bochner,2012). According to a recent study by Hossain et al, (2020), COVID-19 has only increased the possibility of suffering from mental health issues. But, it must be kept in mind that mental health issues are different from psychological disorders like schizophrenia or bipolar disorder. In this paper, we look into possible mental health issues for immigrants and non-migrants through a combination of variables. We also look at how it may have a different effect on men and women. To know more about this, we turn to a literature review and an empirical analysis.

1.3 Motivation

With increasing globalisation, movement across borders has become much easier for a large part of the society. A visible impact of this is the jump in volume of international migration. The world is more interconnected than ever before. Trade in goods and services is on an upwards journey. Migration comes with its own set of challenges. They can be a visible challenge in the form of financial hardship or even something unseen like mental health problems which has become a major challenge in this globalized world. However, there is scanty research investigating the impact of migration on mental health issues. The current study aims to find the impact of international migration on mental health status of the immigrants and also intends to find the possible pathways through which this relationship may work using data from European countries.

The present study intends to investigate whether Migration can be a reason for mental health issues.

CHAPTER 2

LITERATURE REVIEW

This chapter delineates the extant literature on migration covering various impacts of it. Intuitively, the premise remains that individuals are better off when they migrate but have more mental health issues compared to the native population of the country. Most studies look into the impact on migrants vs natives of a particular country and the migrants are usually worse off (Martin and Sashidharan, 2022). On the other hand, a study done in New Zealand and Tonga looked into the difference in the impact of migration on mental health between people who had migrated and those who could not i.e. those who stayed back. It was a lottery-based system and the selected individuals could migrate from Tonga to New Zealand (Stillman & Mckenzie,2007). It was found that migration lead to improvements in mental health especially for women and those who had poor mental health in Tonga. Intuitively, this can be explained by the fact that New Zealand is a first world country with many more amenities for individuals.

2.1 Reasons for migration

People migrate to improve their lives and uplift themselves and even their families. It can be a very stress-ridden process. There are 4 stages of migration-premigration, initial stage, middle stage and final stage. The period of adjustment will depend on negative/positive life events or bereavement issues related to loss of relationships, assets and support (Bhugra, 2010). Families often leave most of their material possessions when migrating.

International migration may take place for a number of reasons. People may be going for further studies, in search of better job opportunities, or in search of better quality of life. Developed nations often have better job opportunities for migrants. Even if the job role is worse, the currency is stronger making them able to send more money back

home. For studies, most of the world-renowned institutions are in a few select countries encouraging student in-flow.

Some may be forced to move due to reasons related to climate change. They can be termed as Climate Migrants. (Millock, 2015). There is a belief that in the coming years, international migration flows due to climate variability will increase. This is especially true for the African continent.

While women may migrate for the above reasons too, they are more likely to migrate due to family reunification, escaping from gender-based discrimination and/or political violence and gaining more social independence. A significant number of women migrants are “trailing spouses” (Delara, 2016a). In the UK, spouses are the biggest group of migrants (at 39%). This happened over the years with a lot of citizens from the Indian subcontinent migrating to England (Charsley et al, 2012). Similarly, China also faces high rates of marriage related migration. It is also highly gendered as 84% of the migrants were women who were married to a settled partner. Men usually settled at the same time as their migrant wives (Van Hear, 2012).

2.2 Phases

An immigrant’s mental health goes through different phases after they move to a different country. This is known as the disillusionment model. Initially, in the "euphoria of arrival" phase, migrants often experience mental well-being equivalent to or even surpassing that of the host population. Subsequently, in the "disillusionment and nostalgia for the past" phase, immigrants' mental health tends to decline as they grapple with feelings of disillusionment and longing for their former life. Eventually, adaptation occurs, bringing migrants' mental health closer to that of the local population. However, over time, there is a gradual decline in both the mental and physical health of immigrants. This decline is attributed to various factors, including socioeconomic status, financial and employment constraints, challenges associated with resettlement and acculturation, juggling multiple responsibilities, experiences of discrimination, difficulties accessing timely services, and language barriers. Individuals in the process of developing their

cultural identity may be influenced strongly by the cultural confusion and culture shock. (Massey, 2003; Haas, 2010)

2.3 Difficulties faced

Both men and women are faced with their own set of difficulties and challenges after migration. However, women face more challenges than men in the form of gender discrimination and lack of financial autonomy. Both these genders face racism especially if they are non-white people migrating to a dominantly White country (USA or Europe). There is a lack of social support system and in quite a few cases even a language barrier. There are social determinants like cultural integration, social integration, social connections in the form of the fact if they are connected to people outside their family etc. Socioeconomic status of a migrant plays a big role in their ability to cope in a new country (Delara, 2016 a, b).

Some families migrate together for a better standard of life or to escape persecution. But in many cases one individual migrates first to secure employment and then waits for their family to come. During this period, they may suffer from lack of emotional support and social distress. They are also affected by common stress sources. This is manifold in cases of refugees or asylum seekers (Beiser et al.). According to Bhugra, institutional racism will also lead to social, economic and political disadvantages. Theoretically, there is a possibility that migrants are more likely to be depressed because of all the loss events they may have suffered.

2.4 Challenges faced

Acculturation- Acculturation denotes the changes in cultural patterns that occur when individuals from different cultures interact continuously, is a multifaceted phenomenon. While some scholars categorize acculturation into distinct modes such as assimilation, integration, separation, and marginalization, others view it as a continuum reflecting the degree of adoption of host culture values and lifestyles. In the context of mental health, acculturation has been examined primarily as a continuous variable, akin to social integration.

Studies reveal nuanced effects of acculturation on mental well-being, varying across gender and cultural backgrounds. Notably, non-Western immigrants, particularly men, exhibit higher levels of psychological distress compared to their Western counterparts. This discrepancy in distress levels can partly be attributed to factors like employment status, income level, social support, and relationship conflicts. Surprisingly, social integration appears to positively impact the mental health of non-Western immigrant men but not women. This disparity suggests that the traditional gender roles prevalent in non-Western cultures might clash with the demands of assimilation into Western societies, posing challenges to women's mental health. (Haas, 2000)

The impact of acculturation on mental health is further nuanced by socioeconomic factors, particularly employment. While social integration through paid work positively influences mental health outcomes for men, its effects on women are more complex. Women's roles as caretakers and family anchors may render them more susceptible to the stressors associated with cultural integration, especially when traditional values conflict with host culture expectations. For instance, Muslim women navigating Norwegian society may face tension between familial expectations to preserve their cultural identity and pressures to assimilate into the broader community. (Abraham,2009)

Victimisation - Immigrant women often face discrimination, stemming from various vulnerabilities. These include cultural and religious beliefs emphasizing female subservience, male privilege, and a culture of silence, fearing familial shame. Factors such as limited understanding of host country laws, financial constraints, and inadequate support exacerbate their plight (Hadeed and Lee, 2009). Victimization contributes to mental health challenges like anxiety, depression, and substance abuse. Moreover, abused immigrant women may suffer severe reproductive health issues like STDs, unwanted pregnancies, and unsafe abortions, compounding their trauma (K.A. Huisman).

Lack of employment in some sectors combined with a shaky financial background is often a cause of worry among the recent migrants, especially students.

2.5 Stressors

The stress can happen due to a number of socio-economic and cultural factors. Migrating women face a double disadvantage of discrimination. They are discriminated

against based on both their gender and race/ethnicity. Their competition in the workforce is even higher. This can affect their job opportunities and their social and personal lives. This in turn has adverse impacts on their physical and mental well-being. And in a number of jobs, they are paid less than their counterparts for the exact same role. Females who migrate as spouses are usually completely dependent on their husband for monetary purposes. There may be difficulty in access to proper health care too. In a number of cases, lack of monetary independence has led to the women experiencing Intimate Partner Violence too. According to a Moyce, 2018, the status as a "partner migrant" may be used as justification by employers for lower wages or fewer rights.

During tough times, that is irregular times of immigration and need for refuge/asylum, women are even more vulnerable. There is a more urgent need for protection against gender-based violence and exploitation. Touts are known for exploiting even the most marginalized members of society for quick money.

Gendered roles are a major determinant of the consequences and causes of migration. While married men have a prosperous career after family migration, married women or "trailing spouses" experience a decrease in employment opportunities and earnings. According to Zhang et al, 2023, the order in which marriage and migration events happen can have long-term implications for health and well-being. Migration before marriage leads to improved social mobility for women while migration after marriage leads to more restrictions and expectations from them.

Citizenship- The process of gaining citizenship is harrowing. It is very tedious and expensive. Countries are getting increasingly selective about the type and number of individuals being awarded citizenship. This is especially true of countries like the USA, Canada and the EU. Individuals with technical skills are more in demand compared to blue-collar workers. They are seen as individuals having "earned" the right to live in the new country. This is known as "earned citizenship" (van Houdt, Suvarieol et al. 2011). This process requires a lot of information and creates huge pressure on a person's mental health. It also gatekeeps individuals who are not employed in "traditional" employment roles (Feuvre & Roseneil, 2014).

Migration, whether due to political turmoil or seeking asylum, imposes significant stressors on individuals and groups. Refugee communities, for instance, face a myriad of challenges that exacerbate psychological distress. Studies from Australia by Silove et al. and Beiser et al. highlight the prevalence of severe psychological stress and psychiatric symptoms among asylum seekers and refugees. These challenges encompass social adjustment, integration into recipient societies, and access to suitable housing and employment opportunities. Additionally, environmental stressors such as institutional racism contribute to social, economic, and political disadvantages, perpetuating ongoing stress and disadvantage, as evidenced by research like Bhugra et al.'s findings on unemployment rates among African-Caribbean individuals with first-onset schizophrenia.

2.6 Health and Employment

A person's country of immigration also affects their health. Immigrants in the US, especially Indian immigrants have a smaller life expectancy compared to non-immigrants. Obesity is also more prevalent among Indian immigrants. In both Canada and the US, there were similar metal level and organic compounds found in the blood of women. In Canada, pregnant women had a higher density of metals and organic compounds in their blood. They also had higher levels of blood cadmium, lead and mercury (Chen et al., 2017). East Asian women had more blood cadmium and mercury in their bodies compared to South Asian women. Bangladeshi women had the highest amount of blood lead levels. (Wiseman et al, 2017) Vietnamese immigrants had been exposed to higher levels of air pollution i.e. black carbon. (Fong et al).

According to Moyce and Scheneker, 2018, immigrant workers have higher rates of adverse occupational exposures and working conditions, which lead to poor health outcomes, workplace injuries, and occupational fatalities. Due to income pressure, migrants often take jobs that are harmful to their health. In 2015, there were approximately 244 million such migrants.

An individual's environment has among the, if not the largest impact on their health. Many immigrants work in jobs with hazardous conditions that may cause them to

fall sick in the short run and develop chronic diseases in the long run. Females migrating abroad for work may face higher health risks than their male counterparts. This in turn becomes a big stressor for mental health.

A number of immigrants also work in the manual labour sector like construction, electricians and gardeners. However, with the rise of right-wing governments over the world, especially in the USA and Europe, there are now much tighter restrictions on immigrants. There is a substantial increase in rhetoric and discrimination against immigrant communities, usually non-white. This has resulted in increasing attacks against minorities-both verbal and physical.

2.7 Effect on Women and Children

Young child migrants suffer in their own way. They are more prone to self-doubt, anxiety, and even suicidal thoughts by self-degradation. They are often victims of bullying by the local children. Migration of only the parents also results in poor coping mechanisms and fall in productivity (Myer et al,2019).

For women, the changes and stressors are more in number. Women face both racism and sexism in their new countries. It is worse if they are a trailing spouse and have no financial independence of their own. They also need to adapt to the new culture quickly. There is a surge in marriage migration of foreign brides in South-East Asia. It is on the rise in countries like Taiwan, Japan and South Korea. Married immigrant women in South Korea face many psychosocial challenges in adapting to their new cultures, families and husbands (Jones & Shen, 2008). A stable marriage indicated a decrease in mental health issues and problems like anxiety and depression.

International migration from Low- and Middle-Income countries to similar countries or Developed countries increases risks for mental ill health due to exploitation in work places (factories) and inability to access social and legal services (MacPherson & Gushulak, 2004). Some major traumatic stressors include trafficking and armed conflict. Those who migrate due to these factors are significantly more at risk of mental health problems. They face increased stigma, smaller social networks and worse working conditions.

In the study done by Dalgard and Thapa, 2007, it was stated that migration of non-white individuals to western countries had a different impact on both men and women. It was easier for men to socially integrate than women. This could be due to the difference in cultural norms for women in the Western society compared to other countries. Women in Eastern society have generally had a more traditional role which puts them in cross-hairs in the Western countries. They may face a sense of loss of self or identity. It is important to keep these differences in mind when formulating policies related to this.

Financial strain, low economic status and economic difficulty are consistent indicators of depressive symptoms. Country of origin also plays a big part in good mental health. Brides from countries which were held in low regard by Koreans reported more stress. More marriages are arranged in the Low Development countries which causes more stress. Men often held a higher position to women in these marriages (Lee and Park, 2017).

In a study by Lebenaum et al in 2021, while gender inequality is more prevalent in poorer countries, it is difficult to match origin country and health outcomes of a woman. Language barriers were identified in accessing psychological and physical support for female migrants both in transit to the host nation and upon arrival in the destination nation. In contrast to men from non-Western countries, social integration appears to have a positive association with mental health for women. However, the traditional social roles of women from non-Western backgrounds may render them more susceptible to the challenges of integrating into Western cultures compared to men from the same backgrounds. These differences underscore the importance of considering gender-specific challenges in integration policies for immigrant communities.

Women are faced with several barriers when they need to access services to help them. These take the form of cultural and linguistic barriers, disbelief in medical interventions, presentation of legal documents and being able to fulfill the necessary criteria for accessing the healthcare services. The migration journey can disproportionately affect women's access to healthcare services, especially for those with undocumented status or who have endured multiple failed attempts at migration. Additionally, aspects of the immigration process itself can be dehumanizing and stress-inducing for women (Betancourt,2013). For example, repetitive questioning about past

victimization experiences can trigger mental disorders like depression, anxiety, and PTSD by rekindling traumatic memories. Similarly, bureaucratic hurdles such as completing settlement documents in countries like Canada can impose financial burdens, leading to accusations of fraud when immigrant women attempt to save money for these expenses, further exacerbating stress and anxiety.

2.8 Help and Community

Despite all these barriers, women have formed and found interventions like 'Self Help Groups' and Cognitive Behaviour Therapy. These are very helpful for women diagnosed with depression- current or recurrent. These sessions help in airing out grievances and become a source of solidarity and community. Discussion range from feelings of loneliness and inadequacy to the daily needs of families. (Virupaksha et al., 2024)

To combat the mental health issues caused due to migration, many countries have set up services to aid those in need. Unfortunately, they have been designed keeping men in mind and not women. On research, it was discovered that female migrants made disproportionately small use of these services compared to the male. This could be due to inability of service to help or other barriers like language, cultural differences and others (Bermejo et al., 2012).

According to Nyikavaranda 2023, migrants seek help less frequently due to the societal stigma attached to it. This can be racism or misogyny. A doctor is likely to believe that the migrant is being untruthful while seeking treatment. Still, female migrants remain socially active and seek access to mental health care. Technology like smartphones are an immeasurable help in this. Culturally sensitive healthcare support, especially when delivered by female migrants, was identified as a facilitator to access.

2.9 Research Gap and Objective:

Though mental health has become a major issue in this globalized world, extant literature has mostly focussed on physical health as a consequence of international

migration. Moreover, the impact of migration is expected to vary across different age groups, and genders and between 1st and 2nd generation migrants, which has not got enough attention. The study intends to fill this gap with the following objectives:

i. We aim to create a composite index of mental health status and investigate the impact of migration on mental health using an ordered Probit model with country-fixed effects.

ii. We intend to find the possible channels through which the migrants face mental health issues such as whether they are familiar with the language spoken in the destination country or whether they are coming from a developing country or from developed country to reflect the cultural difference, duration of stay in the destination country etc.

CHAPTER 3

DATA AND METHODOLOGY

3.1 Data Source

The dataset is sourced from the European Social Survey, 2014. The survey is a cross-sectional survey held every 2 years in a number of European countries. It covers a wide range of topics from personal wellbeing to digital contracts. They have a base questionnaire and extra questions specialized from round to round depending on the theme. They are based on perception on a host of topics including climate, environment, public policy, migration, trust in government etc.

The sample studied, i.e. round 7, was held in 2014 and 2015. This round focused on immigration and socioeconomic inequalities. It included 516 variables.

The countries who participated in this round are Australia, Belgium, Switzerland, Czech Republic (Czechia), Germany, Denmark, Estonia, Spain, Finland, France, United Kingdom, Hungary, Ireland, Israel, Lithuania, Netherlands, Norway, Poland, Portugal, Sweden and Slovenia.

Total respondents in this round were 40,185 individuals. After cleaning for missing values, there were 39,899 respondents. Out of these 31,512 people are classified as non-migrants where neither the respondent nor their parents had migrated to the current country-of-residence. The rest were classified as migrants where 3878 respondents were the first-generation migrants. For second generation migrants, we take respondents whose parents(both) have migrated from another country and settled in the new one. The age group of the sample was from 14 to 86 years old.

3.2 Variables

All variables used in the econometric model and in the dataset are categorical in nature except age and year of birth.

Mental health worsens due to different stressors Not knowing the language of the country a person has migrated to can cause breakdown in communication. This can also be a hindrance in accessing help or other resources present in the country. It is relatively easier

for people who have immigrated to a country which has either English or multiple languages for communication and they are fluent in any one. For example, it is easier for a person who has immigrated from Ireland to England compared to a person who has moved from the USSR (now Russia) to Ireland.

The main independent variable chosen is migrant status- a dummy variable. The control variables include net income of the household, own educational level, parental educational level (through number of years), family size, physical health, if there were family issues, previous employment status.

The dependent variable for Mental Health Status is formed from a combination of 8 categorical variables. They included how often the individual felt depressed, felt everything did as effort, had restless sleep, felt lonely, felt sad, could not get going, was happy and enjoyed life in the past week.

These variables were graded on a scale of 1-4 in the following manner:

1 = None or almost none of the time

2 = Some of the Time

3 = Most of the time

4 = All or almost all of the time

They were converted into binary variables where '0' stands for partial (very little) or not at all i.e 1 and 2 in the categorical scale and '1' stands for almost or all the time i.e. 3 and 4. The process was reversed for the 2 happy variables- enjoyed life and were happy. The scores are then added up. A higher score was indicative of more mental health problems. The score had a range of 0-8

The sample was divided into 4 groups according to age- group 1 was for people 15 to 25, group 2 for ages 25-31, group 3 for 33-65 and group 4 for individuals above 65. This is done keeping in mind that the impact of migration on mental health is going to be more apparent in the immediate and short-term future. There were 3 comparison groups- non-migrants, first-generation migrants and second-generation migrants.

Education has also been divided into 3 parts- till secondary, tertiary education and vocational.

We also have additional variables ResCountry i.e. the host country that the person has migrated to, and Devstatus i.e. the development status of the migrant country.

A number of interaction dummies have been created to check the effect of a particular condition on migrants only. These variables include gender, language, development status of origin country of origin, employment status of individual, and educational attainment. All these have been interacted with the migrant status. As the migrants(both first and second generation) have been given value 1 in the migrant status dummy variable, we get the proper results on comparison with the base category of non-migrants.

The variable "LengthofStay" was generated by using the number of years since they had migrated and dividing them into categories between 1 year and 40 years. It is divided into the groups of less than 1 year; greater than1, 6, 11, 20, 30 and more than 40 years.

A number of other variables were also converted to binary variables when they were originally presented in the form of Likert scale. These include conflicts faced within family, facing discrimination in the host country, and the self-perception of health of an individual.

The development status of a country is also coded as a binary variable representing if the individual has migrated from a developing country or a developed country. All the host countries according to the data are developed countries (as of 2015) (UNCTAD)

A person's employment status is an important part of their life. They are in a financially secure place if they are employed. Accordingly, 4 categories were created pertaining to employment status- student, employed in paid work, unemployed and retired.

3.3 Descriptive Statistics

Table 3.1 represents the total classification of individuals according to migration status. We get 8 categories of classification

Migrant status	Freq.	Percent	Cum. Fr
Non-migrants	31,512	78.98	78.98

First-gen migrants	3,878	9.72	88.70
Second gen migrants	1,632	4.09	92.79
Migrant mother	1,246	3.12	95.91
Migrant father	996	2.50	98.41
both parents born in country but not child	325	0.81	99.22
only father born in country	181	0.45	99.68
only mother born in country	129	0.32	100.00
Total	**39,899**	**100.00**	

Table 3.1: Classification of sample according to migrant status of parents and self

Source: Author's own calculations

Majority of the sample are non-migrants and were born in their own country. However for the purpose of this study, we will be using only the top 3 categories for our analysis

Migrant status	**Freq.**	**Percent**
Non-migrants	31,512	85.11
First-gen migrants	3,878	10.47
Second gen migrants	1,632	4.42
Total	37,022	100.00

*As of May, 2015

Table 3.2: Classification of sample into 3 categories according to migrant status

Source: Author's own calculations

Non-migrants i.e. natives form the largest share of the sample followed by people who are first generation migrants and have moved to the country on their own.

Moving on to the Mental Health index. Eight variables covering various facets of daily life were used to create this index. Then, the 3 different groups and their total was measured against it. This gave us:

Mental Health Index for All respondents

Tabulation of total respondents

Mental health score	Freq.	Percent	Cum.
0	19496	52.26	52.26
1	7089	19.00	71.26
2	5142	13.78	85.04
3	2084	5.59	90.63
4	1198	3.21	93.84
5	826	2.21	96.05
6	721	1.93	97.98
7	462	1.24	99.22
8	290	0.78	100.00
Total	37308	100.00	

Table 3.3: Distribution of sample according to mental health score

Source: Author's own calculations

These scores are further clubbed togetherinto 3 categories. It makes it easier to understand and interpret. Here, the values 0-2 denote Good mental Health, 3 and 4 are for moderate mental health while 6-8 show poor mental health

Frequency of Mental Health condition for both migrants and non-migrants, 2015

Mental Health State	**Non migrants**	**First gen Migrants**	**Second gen migrants**	**Total respondents**
Good	72.45	64.22	66.30	70.99
Moderate	21.62	28.00	27.27	22.87
Poor	5.93	7.78	6.43	6.14
Total	100.00	100.00	100.00	100.00

*All numbers are in percentage terms

Table 3.4: Distribution of sample according to mental health status

Source: Author's own calculations

We observe that over 60% of individuals have good mental health across all age groups. Less than 10% of individuals have poor mental health on average. On average, the non-migrant population had better mental health compared to the migrants.

Physical Health and Mental Health Status

	Migration status		
Subjective general health	**Non-migrants**	**Second generation migrants**	**First generation migrants**
Very good	23.80	29.59	23.73
Good	43.10	40.09	39.68
Fair	25.66	23.39	26.14
Bad	6.10	5.52	8.21
Very bad	1.34	1.41	2.24

Total	100.00	100.00	100.00

*all numbers are in percentage terms

Table 3.5: Health of individuals across migrant groups

Source: Author's own calculations

All the respondents were asked to give their own perception of health. Further detailed health-related questions were also asked. Almost 40% of the respondents across all categories declared themselves to be in good health. Less than 10% on aggregate would say that their health was bad or very bad. This could be due to permanent disabilities or a recent or long-term disease.

Education

Education Attainment	**Non migrants**	**First gen migrants**	**Second gen Migrants**	**Total respondents**
Secondary	64.20	53.99	57.78	62.85
Vocational	13.52	16.03	17.70	13.96
Tertiary	22.27	29.96	24.51	23.18
Total	100.00	100.00	100.00	100.00

*all numbers are in percentage terms

Table 3.6: Education of individuals across migrant groups

Source: Author's own calculations

This table represents a snapshot of the educational attainments and an individual's migration status. On average, second generation migrants are the highest group to go into vocational training. On the other hand, first generation migrants have focused more on Tertiary education i.e. university.

CHAPTER 4

ECOMOMETRIC MODELLING

The Moving to the regression models, we create a baseline model with the dependent variable as Mental Health Status of the migrant. It has an order of 1,2,3 for Poor, Moderate and Good respectively.

The main independent variable is migrant status which has a value 1 for all migrants and 0 for non-migrants. We also use a number of control variables to isolate the impact of migration on mental health. An ordered probit model is used to model the variables.

An ordered probit model is used when the outcome variable i.e. the dependent variable is in the form of rankings. Examples of ordered outcomes are grades (A,B,C,D), rating systems (poor, good, excellent), opinion surveys (strongly agree, agree, neutral, disagree) etc. The categories for the dependent variable are ranked.

An index model for a single latent variable y* (unobservable) is denoted as:

$$y^*_i = x'_i\beta + u_i$$

$$y_i = j \text{ if } a_{j-1} < y^*_i <= a_j$$

The probability that observation i selects option j is:

$$p_{ij} = p(y_i = j) = p(a_{j-1} < y^*_i <= a_j)$$

$$=F(a_j - x'_i\beta) - F(a_{j-1} - x'_i\beta)$$

For ordered probit model, F is the standard normal cdf. If it has j alternatives, it will have (j-1) intercepts and *j* set of marginal effects.

The marginal effects are used to find the change in regressor *x*, on the probability of choosing an alternative. It is represented as:

$$dp_{ij}/dx_{ri} = \{F'(a_{j-1} - x'_i\beta) - F'(a_{j-1} - x'_i\beta)\}\beta_r$$

The total marginal effects of each variable on the different categories(alternatives) should sum upto zero.

Using the above knowledge, we estimate the following equation:

$$\mathbf{MHSTATUS_{it} = \alpha_i + \beta_1 migrantstatus_i + \beta_2 FinalEdu_i + \beta_3 HealthM_i + \beta_4 age\_level_i + \beta_5 dscrgrp_i + \beta_6 conflict_i + \beta_7 GENDER_i + \beta_8 EMP_i + \beta_9 LangMatch_i + \varepsilon_i} \quad \textbf{.....3.1}$$

where,

MHSTATUS = mental health status

migrantstatus = migrant status

FinalEdu = type of education- school level, tertiary or vocational

HealthM = perceived health of individual

age_level =age group of individual

dscrgrp = discrimination faced by migrant in the country

conflict = presence of conflict in family

GENDER = gender of individual

EMP = employment status- employed/unemployed/student/retired

LangMatch = if person knows the official language of the country

Other equations estimated include the following:

$$MHSTATUS_{it} = \alpha_i + \beta_1 migrantstatus_i + \beta_2 FinalEdu_i + \beta_3 HealthM_i + \beta_4 age\_level_i + \beta_5 dscrgrp_i + \beta_6 conflict_i + \beta_7 GENDER_i + \beta_8 EMP_i + \beta_9 LangMatch_i + \beta_{10} ResCntry_i + \varepsilon_i \quad .....3.2$$

$$MHSTATUS_{it} = \alpha_i + \beta_1 migrantstatus_i + \beta_2 FinalEdu_i + \beta_3 HealthM_i + \beta_4 age\_level_i + \beta_5 dscrgrp_i + \beta_6 conflict_i + \beta_7 GENDER_i + \beta_8 EMP_i + \beta_9 LangMatch_i + \beta_{10i} LM\_MS + \varepsilon_i \quad ...3.3$$

$$MHSTATUS_{it} = \alpha_i + \beta_1 migrantstatus_i + \beta_2 FinalEdu_i + \beta_3 HealthM_i + \beta_4 age\_level_i + \beta_5 dscrgrp_i + \beta_6 conflict_i + \beta_7 GENDER_i + \beta_8 EMP_i + \beta_9 LangMatch_i + \beta_{10i} GR\_MS + \varepsilon_i \quad ...3.4$$

For migrants only,

$MHSTATUS_{it} = \alpha_i + \beta_1 FinalEdu_i + \beta_2 HealthM_i + \beta_3 age\_level_i + \beta_4 dscrgrp_i + \beta_5 conflict_i + \beta_6 GENDER_i + \beta_7 EMP_i + \beta_8 LangMatch_i + \beta_9 ResCntry + \beta_{10} DevStatus_i + \beta_4 LengthofStay_i + \varepsilon_i$ …….(3.5)

CHAPTER 5

RESULTS AND DISCUSSIONS

5.1 Results and Interpretation

This chapter summarizes the results and discusses the results with respect to fulfilment of the objective. This study estimates an Ordered Probit model where the dependent variable represents three different status of mental health and the main independent variable is migrant status of the individual.

4.1 Impact of Migration status on mental health status: Ordered Probit regression

Marginal effects table for the base model. The below table represents the probability of an individual staying in a particular state of mental health due to various factors.

Using the baseline model i.e. eq. 3.1, we estimate the following marginal effects:

Table 4.1

VARIABLES		**Poor**	**Moderate**	**Good**
Migrant Status (base-nom-migrants)		0.017589***	0.0305713***	-0.04816***
		(0.002)	(0.003)	(0.005)
Education	Tertiary	-0.01055***	-0.0198244***	0.030372***
(base category-secondary)		(0.002)	(0.004)	(0.006)
	Vocational	-0.01893***	-0.0376474***	0.056575***

		(0.001)	(0.003)	(0.005)
Physical Health (base-good health)		0.090729***	0.1693003***	-0.26003***
		(0.002)	(0.003)	(0.005)
Gender (base-male)		0.014014***	0.0265017***	-0.04052***
		(0.001)	(0.002)	(0.004)
Conflict (base- high conflict)		-0.05166***	-0.0783616***	0.130025***
		(0.003)	(0.004)	(0.007)
Discrimination (base-faced discrim. often)		-0.0416***	-0.0644902***	0.106094***
		(0.003)	(0.004)	(0.008)
Age levels	25-33	0.01073***	0.0210774***	-0.03181***
(base category- 15-25)		(0.003)	(0.007)	(0.011)
	33-65	0.007997	0.01598	-0.02398
		(0.0029)	(0.006)	(0.009)
	>65	0.013434***	0.0259538***	-0.03939***
		(0.003)	(0.007)	(0.011)
Employment	Student	-0.02943***	-0.0495584***	0.078993***
(base category - unemployed)		(0.004)	(0.007)	(0.011)
	Paid Work	-0.03251***	-0.0558536***	0.088366***
		(0.002)	(0.004)	(0.006)
	Retired	-0.02754***	-0.0458068***	0.073346***
		(0.003)	(0.005)	(0.008)
Country level controls		Yes	Yes	Yes
No. of observations		37308	37308	37308

standard errors in parentheses

*** p<0.01, ** p<0.05, * p<0.1

Table 4.1 Margin effects of all factors

Source: author's calculations

There is a positive probability of the migrant to stay in poor and moderate mental health status whereas he has a lesser probability of staying in good mental health status. This implies that the migrants suffer from poor and moderate mental health status thereby validating our hypothesis.

People who have had education beyond school, i.e. tertiary education and vocational training have a higher probability of having good mental health. They are less likely to be in poor or moderate mental health. This can be explained by the fact that more education sets a person apart from the baseline giving him more employment opportunities which brings peace of mind.

There is a positive probability for an individual with bad health to have poorer mental health compared to physically healthy individuals. Individuals with poorer physical health have a lesser probability of staying in good mental health.

Females usually have worse mental health than men. Here, we find that holds true. A female has a lower probability of staying in or reaching good mental health compared to men.

Conflict within families and discrimination faced in one's own country are similar forms of stress for an individual. When there is a reduction in conflict and discrimination, a person's probability of staying at poor or moderate mental health status reduces. They have a higher probability of staying in good mental health.

For different age levels, we observe that the second age group i.e. ages 33-65 are statistically insignificant. The other two age groups are significant and indicate that an individual at any age has higher probability of staying in poor or moderate mental health and lower probability of staying in good mental health in comparison to the base age group of 15-25year olds. Conversely when we take the employment status of an individual with the base as an unemployed person, an employed individual has lower

probability of staying in poor mental health and higher probability of staying in good mental health. We can justify this by saying an unemployed person may be facing financial stress and difficulty. A retired person may not be so worried if they have saved well or have a pension. A student is usually backed financially by parents reducing financial burden and enjoying good mental health.

We wish to check the effect of language spoken and whether it helps immigrants

VARIABLES		**Poor**	**Moderate**	**Good**
Using eq 3.3		0.0122145**	0.0215637**	-0.033783**
Migrant Status (base- nom-migrants)		(0.005)	(0.008)	(0.0013)
Language match		0.0014981	0.027899	-0.004288
		(0.003)	(0.006)	(0.009)
LM_MS		0.0075679	0.01353	-0.0210979
		(0.001)	(0.009)	(0.015)
Using eq 3.4		0.0199331***	0.034197***	-0.0540728***
Migrant Status (base- nom-migrants)		(0.003)	(0.005)	(0.009)
Gender (base- male)		0.147475***	0.0277606***	-0.0425081***
		(0.001)	(0.003)	(0.004)
GR_MS		-0.001648	-0.0030694	0.0047174
		(0.003)	(0.007)	(0.011)
Country level controls		Yes	Yes	Yes
No. of observations		37022	37022	37022

standard errors in parentheses

**** p<0.01, ** p<0.05, * p<0.1*

Table 4.2: Margin effects on interaction terms

Source: author's calculations

On estimating eq 3.3, we observe that the addition of the "LangMatch" variable reduces the significance level of migrant status from 1% level to 5%. A curious observation was that knowing the official language of the country a person has migrated to, is not a significant variable. According to this, there is a positive probability that the migrant will remain in poor and moderate mental health despite knowing the language. He will have lower probability of staying in good mental health. While this seem curious, there is literature backing the fact that knowing the language causes certain sections of the migrants to feel left out. They are not able to integrate fully. Also, a second-generation migrant would grow up learning the language but mat still not be able to integrate fully. More research could be conducted in this.

On estimating eq. 3.4, we find that migrant status and gender are both significant variables. An individual is more likely to stay in poor or moderate mental health if they are a migrant or a female. However, when taking their interaction, the results turn completely opposite while insignificant. While we may not be able to find concrete reasons for this phenomena, one possible explanation could be the sense of community and self-help groups that female migrants commit to. It is less common or heard of for males to seek help.

Moving to a very important variable, the length of stay or the duration an individual has resided in the host country. For this, we estimate eq. 3.5 for migrants only.

VARIABLE		**Poor**	**Moderate**	**Good**
Length of stay (base-less than 1 year)	1 Year	-0.2867238**	-0.0137985***	0.4242296***
		(0.168)	(0.0305)	(0.137)
	Upto 5 years	-0.2923789**	-0.1480632***	0.440442 ***
		(0.168)	(0.0304)	(0.143)

	Upto 10 years	-0.272574	-0.1140726***	0.3866465***
		(0.168)	(0.028)	(0.143)
	Upto 20 years	-0.02786743*	-0.1236803***	0.4023546***
		(0.168)	(0.028)	(0.143)
	Upto 30 years	-0.2900056**	-0.1435318***	0.4335374***
		(0.168)	(0.029)	(0.144)
	40 years and more	-0.2829178**	-0.13079***	0.4137078***
		(0.168)	(0.026)	(0.142)
Country level controls		Yes	Yes	Yes
No. of observations		5510	5510	5510

standard errors in parentheses

**** p<0.01, ** p<0.05, * p<0.1*

Table 4.3: Margin effects of Length of stay of migrants

Source: author's calculations

Length of stay and its effect on the mental health of a migrant differs across ages. It also depends on what age they moved to a new country. There is a consistent pattern followed across all categories that there is a negative probability of having poor or moderate mental health and higher probability of staying in good mental health across all ages. This implies that migrants have better state of mind after migration at all ages. While this contradicts our hypothesis, it could be explained through the phases of migration. Where in phase 1, the migrant is euphorious at moving. After having gone through a sad period due to emotional and familial distance, the migrant is more content in a better developed country. Proof of this can be seen in the probability of having poor mental health is either nit significant or significant at 5% level. We must also account for the second generation migrants in this who have been living in their country their entire life. Still, the feeling of dissonance persists.

CHAPTER 6

CONCLUSION

By bringing together immigration statistics with information from academic and third-sector sources, we attempt to provide a more balanced and nuanced portrayal of patterns and practices of migration. In doing so, we reveal important information in migration flows and consider how varying conflicts, discrimination, social and political contexts, and policies of both receiving and sending countries may work to influence international immigration. It also exposes the limitations in existing research on the intersection of migration and mental health. While in the short run, the negative effects on mental health may not be immediately visible, its effects will be felt in the long run. It will continue to be affected by the kind of society an individual lives in.

When mental health is talked about, the conversation is lacking in ways that raise awareness, foster advocacy, and lead to meaningful change (Roberts et al, 2013). Promotion of mental wellbeing, strengthening of protective factors, reduction of preventable risk factors, early detection of illness and provision of effective services for the treatment of mental illness during childhood and adolescence should be a central concern on the public mental health agenda. Certain policies will also have to be gender-specific and target women and children as they are the ones most severely affected by it all

and other Developing countries have a larger impact of relative power on services exports than any other type of country-pairing. This is followed by agreements between

Developed countries and other Developed countries. For a Developing-Developed pair, the importer (Developed) country increases its services exporters, rather than the exporter

CHAPTER 6

APPENDIX

Tabulation of Country-wise Population, 2015

Country	Non migrants	First gen Migrants	Second gen migrants	Total survey respondents
Australia	4.50	4.54	4.04	4.47
Belgium	4.25	4.85	4.78	4.40
Switzerland	2.85	8.81	6.62	3.81
Czechia	6.03	1.44	0.80	5.35
Germany	7.81	6.84	4.66	7.58
Denmark	4.14	2.28	0.86	3.74
Estonia	3.63	9.87	14.64	5.10
Spain	5.44	3.63	0.31	4.79
Finland	6.17	2.02	0.12	5.19
France	4.51	4.83	6.31	4.77
UK	5.54	6.77	4.11	5.63
Hungary	5.15	0.48	0.61	4.23
Ireland	6.24	5.98	0.80	5.95
Israel	2.66	19.36	39.95	6.38
Lithuania	6.25	1.99	1.23	5.60
Netherland	5.00	3.84	3.13	4.78
Norway	3.79	3.41	0.67	3.57
Poland	4.82	0.36	0.92	4.02
Portugal	3.56	1.25	0.31	3.15

Sweden	4.49	5.26	2.88	4.46
Slovenia	3.19	2.19	2.27	3.05
Total	100.00	100.00	100.00	100.00

*All numbers are in percentage terms

Table 6.1: Destination country-wise population according to migrant status

Source: Author's calculations

The above and further tables deal only within-migration. Here, we observe that Israel has the highest percentage of first and second generation migrants in the countries sampled at nearly 19% and 40% respectively. While we do not know the cause of this, Virupaksha et al. (2014) observes that in Israel, adolescent migrants have reported worse mental health symptoms and took part in risky behaviour much more than their native counterparts. It was even significantly higher when compared with the second-generation migrant adolescents.

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