

# **MENTAL HEALTH IN JORDAN: A REVIEW OF THE SOCIAL DETERMINANTS INFLUENCING THE MENTAL HEALTH OF JORDANIAN POPULATION**

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# **MENTAL HEALTH IN JORDAN: A REVIEW OF THE SOCIAL DETERMINANTS INFLUENCING THE MENTAL HEALTH OF JORDANIAN POPULATION**

A thesis submitted in partial fulfilment of the requirement for the degree of Master of International Health

By

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Signature: 

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I would like to dedicate this thesis to all people struggling with mental health issues both in Jordan and globally. Furthermore, during these difficult times, I want to extend prayers to all people in Gaza who fight for their lives every day.

I am grateful for my mother as her influence pushed me through this study, my friend Shayma and Natalie for her moral support, and above all God for his blessings upon me and my family during this journey.

## LIST OF ABBREVIATIONS

<b>Term</b>	<b>Definitions</b>
ADHD	Attention Deficit Hyperactivity Disorder
CDC	Centres for Disease Control and Prevention
COVID-19	Coronavirus disease
FMD	Frequent Mental Distress
GDP	Gross Domestic Product
HCW	Health Care Worker
IMC	International Medical Corps
IOM	International Organization of Migration
KIT	Royal Tropical Institute
KT	Knowledge Translation
LMICs	Low and middle-income countries
MDGs	Millennium Development Goals
MENA	Middle East and North-Africa
mhGAP	Mental Health Gap Action Programme
MOE	Ministry of Education
MOH	Ministry of Health
MVPA	Vigorous Physical Activity Guidelines
NCDs	Non-communicable diseases
NGO	Non-Governmental Organisation
PHC	Primary Healthcare
PPD	Postpartum Depression
PTSD	post-traumatic stress disorder
RMS	Royal Medical Services
SDGs	Sustainable Development Goals
UN	United Nations
UNFPA	United Nations Population Fund
UNHCR	United Nations High Commissioner for Refugees
UNICEF	United Nations International Children's Emergency Fund
WHO	World Health Organisation
PTSS	Post-Traumatic Stress Symptoms

## GLOSSARY

**Mental illnesses** are disorders that affect emotion, thought, and attitude (or a combination of these). Anxiety and/or difficulty coping with daily responsibilities at work, in the family, or public interactions can be symptoms of mental diseases <sup>1</sup>.

**Mental health** is when a person is capable of developing and maintaining close bonds with others, acting out the social roles customarily performed in their culture, managing the transition, and being able to identify, recognize, and share constructive actions and thoughts as well as control negative feelings like sadness <sup>1</sup>.

**Psychosocial well-being** is mental and emotional health, along with social and communal well-being <sup>2</sup>.

**Life transitions** are substantial, non-biological life changes like Bereavement, job loss, retirement, and other life events are examples <sup>3</sup>.

**Migration** is the movement of people from one location to another. Migration can occur both across national borders and within a country (internal migration). There are numerous causes for migration, including seeking a new job, finding a better quality of life, reuniting with family, or fleeing political persecution or natural disasters <sup>3</sup>.

**Resilience** is the ability to cope with, adapt to, and grow in the face of obstacles, adversity, and trauma having resilience means being able to grow after a post-traumatic event, which is a positive psychological change <sup>3</sup>.

**Individual autonomy** refers to a person's ability to make decisions and behave according to their own preferences <sup>3</sup>.

**Attachment** is the emotional link formed by a newborn with their primary caregiver because of caregiver behaviour <sup>3</sup>.

**Discord and Conflict** is family disagreements, marital dispute and conflict emerging between generations <sup>3</sup>.

**Health and Social care** are the medical, nursing, and other allied health services that support, maintain, or improve physical and mental health are included in the category of health care <sup>3</sup>.

**Public and community services** are This includes public transportation as well as community spaces, which include libraries, parks, creative outlets, and recreational areas <sup>3</sup>.



**Built and natural environment** “is the air and water quality, sanitation, noise, green space, walkability, and urban degradation”<sup>3</sup>.

**Neighbourhood deprivation** consists of a population that suffers from poverty, lack of investment, infrastructure, transportation, parks, housing, and education<sup>3</sup>.

**Displacement** “is when refugees, forced migrants and asylum seekers are forced to flee because of involuntary transfer away from their homes owing to factors such as natural disasters, armed conflicts, and human rights violations”<sup>3</sup>.

**Commercial factors** “are decisions made by corporations and private companies that have an impact on health”<sup>3</sup>.

**The welfare system** includes unemployment benefits, retirement pensions, disability aid, and housing benefits<sup>3</sup>.

# **ABSTRACT**

## **Objective**

This thesis seeks to conduct a comprehensive review and analysis of the various factors that influence mental health among people living in Jordan. The study aims to investigate the social determinants of mental health in Jordan and their effects on preventing, detecting, and managing mental health issues. The analysis is intended to offer suggestions to government officials and policymakers for implementing interventions and healthcare strategies designed to address the unique requirements of the Jordanian population.

## **Method**

A literature search across various databases such as PubMed, PsycINFO, Scopus, and Google Scholar was carried out to identify studies published between 2005 and 2023 on the impact of social determinants on mental health outcomes.

## **Conclusion**

Most of the included studies found connections between social factors and mental health results. Studies population were not representative of all 12 governorates with focus mainly on the capital Amman which made it challenging to make more than general conclusions. This review emphasizes the significance of social determinants in triggering and sustaining mental illness while advocating for political action and effective interventions to enhance everyday living conditions for better overall mental health.

## **Keywords**

Mental health, determinants, Jordan, individual factors, family factors, community factors, structural factors, gender, religiosity, social support, mental health awareness, stigma

## **Word count**

13334

## FOREWORD

In 2015, mental health and well-being were added to the 2030 Agenda for Sustainable Development Goals (SDGs) which was built on emerging challenges that were overlooked in the previous Millennium Development Goals (MDGs). All member states of the United Nations are obliged to give output on progress regarding mental health and well-being relevant goals; their adopted programmes, policies, and systems that are/will be utilized to improve these goals <sup>4</sup>.

I am Jordanian with Palestinian origins, born and raised in Kuwait, and currently residing in Jordan. Such diversity in background drove my interest in global health and migration. I graduated with a Doctor of Dental Surgery degree and practiced for three years before fully committing to the resettlement and migration sector. A huge gap is noticeable in addressing and prioritizing mental health and psychosocial well-being-related goals. Jordan's dependence on international outsourcing and financial aid, migrant influx, political constraints, and other factors contributed to the Jordanian citizen's struggle for providing a decent living for themselves as individuals and caregivers <sup>5</sup>. Moreover, with the emergence of the COVID-19 pandemic in late 2019, the mental health and psychosocial well-being of people in Jordan were impacted. The presence of this pandemic on and off for almost three years now negatively influenced individuals; from mass panic and false media to being called victims of the pandemic, mental health and psychosocial wellbeing took a turn for the worse <sup>6</sup>. It was only my fourth month of being hired at the International Organization of Migration (IOM) when COVID-19 started spreading in Jordan and the country announced a mass lockdown. Being away from family, the complete lockdown and the spread of misleading information contributed to the deterioration of my mental health and well-being. I am blessed enough that the organization provided health insurance coverage for therapy sessions as they are expensive (a minimum of 70\$ per hour. This led me to think, how can other people in Jordan afford such services? And what kind of services or programmes are provided by the government not just during the pandemic but also in regular situations? It was not an easy time, and the lack of mental health awareness made it worse. Therefore, I decided to look into the matter and seek answers to this growing issue.

## CHAPTER ONE: BACKGROUND INFORMATION

This chapter contains information about The Hashemite Kingdom of Jordan, or simply Jordan. It provides information about geography, demographics, socioeconomic and education status, health system situation and structure.

### 1.1 Geography

Jordan (figure 1)<sup>7</sup>, strategically located in the Middle East, exhibits a diverse geography that profoundly influences its social, economic, and health landscapes. Bordered by Syria to the north, Iraq to the northeast, Saudi Arabia to the southeast, and Palestine to the west, the country occupies a pivotal position in southwestern Asia<sup>8</sup>.

Jordan is regarded as a lower-middle-class economy according to the “World Bank”, although this is highly contested given that Jordan’s “Human Development Index” is 102nd in the world and is facing one of the deadliest droughts in the world<sup>9</sup>. Jordan is divided into 12 governorates: Amman (the capital), Irbid, Zarqa, Mafraq, Ajloun, Jerash, Madaba, Balqa, Karak, Tafleeh, Maan and Aqaba. Jordan has sets of economic and geographic drawbacks, in addition to poverty and political unrest, all of which place it in the category of low-middle-income developing countries<sup>9</sup>.

Figure 1: Map of Jordan<sup>7</sup>



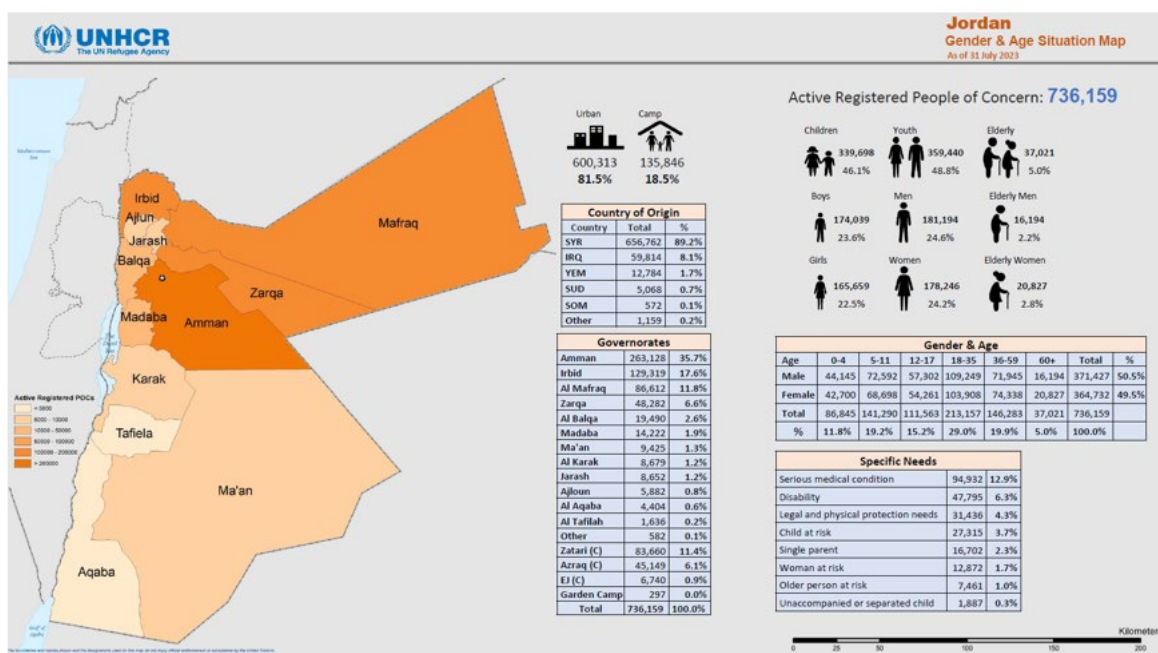
### 1.2 Demographics

Jordan's population, estimated at approximately 12 million as of 2023, comprises a mix of ethnicities, primarily Arab, along with minority communities like Circassians and Chechens.

Jordan, being an Arab nation, has about 95% Arabs and 5% minorities<sup>10</sup>. (Figure 2)<sup>11</sup> shows an “age and gender” situation map of Jordan released by UNHCR in August 2023. Of a 10

million population, however, about 25% are non-citizens - which include refugees and illegal immigrants <sup>12</sup>. It has the second highest refugee per capita in the world. Over 700,000 Syrians are said to have moved to Jordan by 2022 <sup>13</sup>. The two prominent refugee camps in Jordan are the Azraq camp which hosts approximately 40,000 refugees and the Za'atari camp which harbours more than 80,000 refugees. Both are located outside Jordan's capital, Amman. They consist of relatively a small 18% of the total refugee population residing in Jordan. Refugees

(Figure 2)<sup>4</sup>: Jordan Gender & Age Situation Map



living within the host community constitute the majority, 84% of the total refugee population <sup>11</sup>.

### 1.3 Socioeconomics and Education Status

Socioeconomic disparities are prevalent, with urban areas, especially Amman, experiencing more economic stability than rural regions. High youth unemployment rates and economic challenges contribute to social tensions, impacting mental health outcomes, particularly among young adults <sup>14</sup>.

Jordan's education system has made significant strides, yet challenges remain. Access to quality education varies, with urban areas generally having better educational facilities <sup>15</sup>.

### 1.4 Health Status and Epidemiological Profile

Non-communicable diseases (NCDs) form a substantial burden on Jordan's healthcare system. Conditions like cardiovascular diseases, diabetes, and cancer contribute significantly to the morbidity and mortality rates. Additionally, mental health disorders, exacerbated by

regional conflicts and socio-economic stressors, are emerging as a major public health concern in the country <sup>16</sup>.

### **1.5 National Mental Healthcare System in Jordan**

Jordan's healthcare system encompasses mental health services, albeit facing several challenges. Efforts have been made to integrate mental health into primary care, but barriers like stigma and limited awareness persist, impeding accessibility <sup>16</sup>. Mental health professionals in Jordan, including psychiatrists, psychologists, social workers, and counsellors, contribute across different levels of intervention, from early prevention to community-based services <sup>16</sup>.

Furthermore, access to mental health care in Jordan is influenced by financial constraints and insurance coverage. Limited insurance coverage for mental health services restricts accessibility for many Jordanians, with only specific groups, like Jordanian citizens employed by certain international agencies, having insurance that covers mental health care costs <sup>5</sup>.

While mental health services are part of Jordan's healthcare system, challenges persist, including disparities in access between urban and rural areas, scarcity of mental health professionals, financial constraints, and limited insurance coverage, affecting different groups' accessibility to public and private health services <sup>16 17</sup>.

# **CHAPTER TWO: PROBLEM STATEMENT, JUSTIFICATION, OBJECTIVES, METHODOLOGY, AND CONCEPTUAL FRAMEWORK**

## **2.1 Problem Statement**

Mental health represents a pivotal dimension of holistic well-being, encompassing emotional, psychological, and social aspects.

Mental health concerns within Jordan encompass a diverse array of conditions. The most prevalent being anxiety disorders, depression, and post-traumatic stress disorder (PTSD)<sup>18</sup>. These conditions are deeply influenced by societal, cultural, and environmental determinants inherent to the Jordanian populace<sup>19</sup>. However, mental health issues in Jordan often receive comparatively insufficient attention and resources when juxtaposed with physical health concerns<sup>20</sup>. This variation marks the necessity to emphasize the relevance of mental health, shedding light on its impact concerning the prevalent health challenges faced by the Jordanian population. The dearth of attention to mental health within the healthcare discourse contributes to disparities and obstacles in accessing adequate mental healthcare services.

The unique context of Jordan also highlights the disproportionate impact of mental health issues on specific vulnerable groups within the population, such as refugees, marginalized communities, and individuals facing socio-economic hardships<sup>21</sup>. These marginalized sectors face amplified mental health challenges amidst limited access to support and services, infringing upon their fundamental right to health and equity<sup>21</sup>.

Estimations suggest that mental health issues affect up to 26.1% of Jordan's population. Despite ongoing efforts to enhance mental health services, persistent challenges, including the shortage of mental health professionals, limited resources, and enduring cultural stigma, continue to impede progress<sup>22</sup>. Therefore, a comprehensive exploration focusing on specific social determinants—structural, community, family, and individual—is vital to understanding how these factors collectively influence mental health outcomes within the Jordanian context.

This study aims to provide an extensive review of the social determinants of prevalent mental health issues in Jordan, drawing from literature that sheds light on mental health in Jordan or analogous settings. Additionally, this research explores how these determinants impact the development, detection, and management of mental health disorders, both among the general population and among vulnerable groups. By diving into these specifics, this comprehensive review aspires to contribute to the development of tailored interventions and policies addressing the identified mental health challenges within the unique context of Jordan.

## **2.2 Justification**

This review seeks to bridge the fragmented landscape of existing literature concerning the social determinants of mental health in Jordan. While evidence exists regarding these determinants, it is dispersed across a variety of sources, limiting a comprehensive understanding of their collective impact (Othman et al., 2019; Mhaidat et al., 2020). By conducting a review and analysis, this thesis aims to consolidate and synthesize the existing fragments of knowledge. Such an overview will not only provide a comprehensive understanding of the current state of knowledge but also offer valuable insights into effective interventions, policies, and strategies to address mental health challenges among the Jordanian population (World Bank, 2020; Al-Modallal, 2017).

Moreover, this review caters to policymakers, healthcare practitioners, and researchers in Jordan by offering a comprehensive analysis of the social determinants' influence on mental health outcomes. By identifying gaps in knowledge and consolidating scattered evidence, this review aims to equip these stakeholders with essential insights for formulating targeted interventions and policies, thereby enhancing mental healthcare services and addressing mental health disparities within the Jordanian context.

## **2.3 General Objective**

The study aims to analyse the social determinants of mental health in Jordan and their impact on mental health prevention, detection, and management. This analysis seeks to provide recommendations to government and policymakers for interventions and healthcare strategies tailored to meet the specific needs of the Jordanian population.

### **2.3.1 Specific Objectives**

The specific objectives for this review include:

1. To describe and analyse the burden of mental health problems amongst Jordanian population.
2. To analyse determinants at structural, community, family and individual levels influencing the mental health of Jordanian population.
3. To discuss the successfully implemented strategies, interventions and available services aiming to improve the mental health of people living in Jordan and similar settings.



4. To provide recommendations for policymakers on how to address the social determinants and improve mental health outcomes among people in Jordan.

## **2.4 Methodology**

This thesis is a literature review of original studies on the influence of social determinants on mental health of Jordanian population and vulnerable groups in Jordan.

### **2.4.1 Search Strategy**

The methodology employed a comprehensive literature search across various databases such as PubMed, PsycINFO, Scopus, and Google Scholar to gather data on social determinants affecting mental health outcomes in Jordan. Search terms like "social determinants of mental health," "mental health status in Jordan," and "Jordanian population mental health" were utilized. Boolean operators "AND" and "OR" were used to refine searches and include a diverse range of studies.

The search aimed to encompass studies addressing determinants impacting mental health outcomes in the Jordanian population, including vulnerable groups like refugees, women, children, and those with pre-existing mental health conditions. Specific terms related to determinants from the study's framework, such as trauma, family dynamics, adverse childhood experiences, health and social care, inequality, adulthood trauma, parenting, and community services, were integrated into the search strategy. Additionally, the search targeted initiatives, strategies, policies, and healthcare addressing mental health issues in Jordan. Keywords like "government interventions," "government policies," "mental health policies in Jordan," and "interventions for mental health determinants" were used to gather insights into existing practices. Grey literature sources, government reports, and academic publications were extensively reviewed to extract information on ongoing interventions and policy frameworks.

### **2.4.2 Inclusion Criteria & Exclusion Criteria**

The inclusion criteria for selecting relevant studies encompassed an emphasis on mental health determinants and the discussion of current interventions and services addressing mental health issues. Only English written studies between the years 2005 and 2023, conducted within Jordan and among the Jordanian population (including refugees living within the host community). Additionally, studies conducted in other countries (similar to Jordan setting), were reviewed for comparative purposes in the discussion chapter.

Literature about refugees residing in refugee camps were excluded from the study; refugees residing in camps (Azraq Camp and Zaatri Camp) were not included because they have access to mental health and psychosocial support within the camp medical services.

## 2.5 Conceptual Framework

The "Public Mental Health Conceptual Framework" as presented in (Table 1)<sup>3</sup>, developed by Dykxhoorn et al. (2022), provides a comprehensive structure that amalgamates various determinants influencing public mental health. This framework is rooted in a robust developmental process that incorporated academic research, practitioner expertise, and public perspectives to create a comprehensive model. This framework was built on the socioecological model by Bronfenbrenner (1977) and the resilience framework by Hart and Blincow (2007)<sup>3</sup>.

The framework delineated into four levels – individual, family, community, and structural – encompasses a broad array of determinants. Each level encapsulates a cluster of factors crucial in understanding public mental health within communities. Derived from an amalgamation of sources including academic literature reviews, grey literature, peer researchers' mind maps, workshops, consultations, and online surveys, this framework embodies a holistic understanding of mental health determinants<sup>3</sup>.

Accordingly, this framework aligns with the objectives outlined in this review and the result section will be structured to discuss each subcategory's influence on mental health:

**Individual Determinants:** involves personal traits, socio-demographic factors (income, education, housing), and personal aspirations<sup>3</sup>.

**Family Determinants:** this concentrates on understanding family dynamics, household composition, extended family relationships, and parenting styles<sup>3</sup>.

**Community Determinants:** Reflecting factors like community safety, social support networks, neighbourhood deprivation, and civic engagement<sup>3</sup>.

**Structural Determinants:** this focuses on societal factors such as (in)equality, economic conditions, government policies, and legislation<sup>3</sup>.

Furthermore, the framework was modified to suit the context of Jordanian population. It was originally created for the United Kingdom. Therefore, some determinants like North–South divide (community category) that discusses discrepancy between the north and south of England were excluded.

By exploring these components, the study aims to unravel how societal factors contribute to mental health. Understanding these interactions informs interventions targeting specific drivers, promoting more inclusive mental health policies. Considering outcomes at both individual and societal levels, the study generates informed recommendations. Policymakers and healthcare professionals can leverage the framework to develop targeted interventions addressing specific drivers and manifestations, thereby fostering an environment conducive to improved mental health.

Table 1: Public Mental Health Conceptual Framework<sup>3</sup>

<b>Individual</b>	<b>Family</b>	<b>Community</b>	<b>Structural</b>
<i>Trauma &amp; adversity</i>	<i>Family dynamics</i>	<i>Systems &amp; services</i>	<i>Broad factors</i>
Adverse childhood experiences	Attachment	Health & social care	(In)equality & (in)equity
Adulthood trauma	Parenting	Public & community services	Climate change
Bullying	Family connectivity	Criminal justice system	Displacement
<i>Physical &amp; psychological health</i>	Extended family relationships	<i>Social environment</i>	<i>Industry</i>
Genetics & biological factors	Discord & conflict	Social support & networks	Commercial factors
Prenatal & perinatal factors	<i>Family structure</i>	Social inclusion & cohesion	Media & advertising
Physical health	Caring responsibilities	Civic engagement	<i>Government &amp; political</i>
Health behaviours	Intergenerational (dis)advantage	Mental health awareness	Economic conditions
<i>Life experiences &amp; opportunities</i>	Household composition	<i>Geographic &amp; physical environment</i>	Government policies & legislation
Life transitions	Marriage, civil & domestic partnerships	North–South divide	The welfare system
Migration		Built & natural environment	Political structures & climate
Hobbies & leisure time		Urban/ rural/ remote differences	Global politics & events
<i>Identity</i>		Neighbourhood deprivation	<i>Norms &amp; rights</i>
Ethnicity & culture		Community safety	Discrimination & stigma
Gender, sex, gender identity & sexual orientation			Social & cultural norms
Religion, spirituality & faith			Human rights & social justice
<i>Personal traits</i>			
Resilience			
Sense of self			
Personal aspirations & ambitions			
Individual autonomy			
<i>Sociodemographic</i>			
Income			
Housing			
Education			
Employment			

## CHAPTER THREE: STUDY FINDINGS & RESULTS

### 3.1 Burden of Mental Health in Jordan

It is becoming more and more evident that mental health problems are increasing among adolescents and women, in Jordan. Recent studies have shed light on the difficulties faced by

these groups. These studies have highlighted conditions that affect demographics. For instance, depression, stress, anxiety and low self-esteem have emerged as health issues among women<sup>23</sup>.

The Institute for Health Metrics and Evaluation showed Prevalence of mental disorders in Jordan, 2019 was 14,189 per 100,000 people. According to the estimates provided by the 2017 Global Burden Disease Study showed that major depressive disorder stands out as having the prevalence among the discussed conditions affecting up to about 2.4% of individuals or around 243,484 cases<sup>24</sup>. Females have an incidence rate at about 2.7% while males have a rate at approximately 2.1%<sup>20</sup>. Moreover, this disorder is commonly observed among adults and older age groups with rates of, around 2.9% and 3.1%, respectively<sup>24</sup>.

On the hand, bipolar disorder has a higher occurrence rate, impacting about 0.8% of the total population. This equates to 81,211 cases with adults (aged between 20 and 29 years) being slightly more affected at a prevalence rate of 1.2%<sup>24</sup>.

The paper also addresses substance use disorders wherein alcohol use poses a problem for about 0.7% of the population or 67,804 cases. Although it impacts both males and females it is commonly observed in males (0.8%) compared to females (0.5%). Similarly, it is predominantly found among adults (1.3%)<sup>24</sup>. On the side substance abuse disorders affect, about 1.7% of the population, which accounts for 169,698 cases. This problem is more prevalent in males (2.5%) than in females (0.7%). Among adults the prevalence rate rises even higher affecting almost 3.8% of this age group and corresponding to around 71,682 individuals<sup>24</sup>.

The burden of health becomes more concerning when examining mortality data. The research paper highlights that suicides account for 0.8% of all deaths in the country. However, it's worth noting that Jordan's suicide rate remains lower than the average for the North Africa and Middle East region, as the global average<sup>24</sup>. Epilepsy is another condition mentioned in this paper with a prevalence rate of about 0.3% which corresponds to 34,364 cases. Enough it appears to occur more frequently among males (0.4%) compared to females (0.3%). It is believed that schizophrenia affects 0.2% of the population resulting in around 18,236 cases overall. This prevalence remains relatively consistent, across genders and age groups<sup>24</sup>.

Further research focused on women has revealed a variety of health challenges including depression, stress, anxiety and a decrease in self-confidence. One study discovered that 51.2% of employed women displayed symptoms of depression while stress and anxiety were prevalent

in 36.7% and 41.6% respectively. These findings emphasize the occurrence of health problems among women in the community and their significant impact on overall wellbeing <sup>23</sup>.

When it comes to teenagers it seems worrisome as more than half of them are facing health challenges like depression, anxiety, rule breaking and aggression <sup>25</sup>. Moreover, a study conducted in Jordan focused on children and teenagers. Found a range of health issues including symptoms of depression anxiety disorders, Attention Deficit Hyperactivity Disorder (ADHD) Post Traumatic Stress Disorder (PTSD) and eating disorders among others <sup>20</sup>.

A survey conducted in schools in Irbid revealed that 28.6% of adolescents are affected by some form of disorder. Mood disorders were found to be a concern. Furthermore, the prevalence rates for these symptoms varied significantly among groups of adolescents ranging from 7.1% to 73.8% <sup>20</sup>.

Among displaced Syrians in Jordan, clinical levels of post-traumatic stress were found to be as high as 71 percent. Interestingly, both Syrians and Jordanians in the study exhibited mean post-traumatic stress symptoms scores above the clinical cut-off of 14 for a probable diagnosis of Post Stress Disorder (PTSD), indicating the widespread prevalence of PTSD among these populations. Syrians, however, scored significantly higher on Post-Traumatic Stress Symptoms than Jordanians. These mental health problems can be attributed to factors, including the instability, in access to food and housing forced displacement, exposure to events and depletion of resources <sup>18</sup>.

Taken together these findings provide insights, into the burden of health problems impacting segments of the population.

## **3.2 Determinants Influencing Mental Health of Jordan Population**

### **3.2.1 Individual Determinants**

Individual
Trauma & adversity
Physical & psychological health
Life experiences & opportunities
Identity
Personal traits
Sociodemographic

Table 2: Individual Determinants<sup>3</sup>

### ❖ *Trauma & adversity*

Exposure to childhood adversities, adult trauma, and bullying can greatly elevate the chances of developing a range of mental health issues, such as depression, anxiety disorders, post-traumatic stress disorder, substance abuse disorders, and self-harming behaviours. These experiences disrupt normal coping mechanisms and lead to maladaptive behavioural and cognitive responses<sup>26 18 27</sup>.

With regards to adverse childhood experiences; based on a Centers for Disease Control and Prevention report, almost 60% of adults have reported encountering at least one adverse childhood experience, with around 26% reporting three or more<sup>27</sup>. One paper that encompassed a diverse group of Jordanian women showed evident that emotional abuse and neglect during childhood were frequently reported forms of mistreatment among the participating Jordanian women, with rates of 47.1% and 18.1%, respectively<sup>26</sup>. These types of childhood abuse were significantly linked to higher levels of depression, stress, and anxiety as well as lower self-esteem in adulthood. Furthermore, it is indicated that experiences of childhood maltreatment negatively impact victims' mental health even in their adult years, impacting their overall well-being<sup>18</sup>.

It is revealed that kids experiencing households with unstable income were more prone to displaying elevated levels of symptoms linked to mental health issues. This highlights the interrelated nature of different factors such as adverse experiences, financial instability, and mental health results<sup>18 26 27</sup>

Adult trauma is also common, with about 70% of adults in the Jordan experiencing some type of traumatic event at least once in their lives<sup>27</sup>. The research addressed Syrian refugees in Jordan as well. It was indicated that the refugees displayed more frequent symptoms of distress compared to the host populations, suggesting a higher prevalence of potentially traumatic experiences<sup>27</sup>. The World Health Organization estimates that up to 3.6% of the global

population has experienced Post-Traumatic Stress Disorder (PTSD) in the past year, indicating widespread adult trauma. Studies have indicated post-traumatic stress symptoms in the refugees and displaced population as high as 71%<sup>18 28</sup>. Syrian refugee adolescents in Ramtha city, Jordan displayed varying levels of PTSD and depressive symptoms based on gender, indicating that exposure to trauma may affect mental health differently for boys and girls<sup>18 28</sup>.

The association between traumatic experiences and mental health is influenced by positive social support, which can help alleviate the effects of trauma and displacement showing intertwined relationship amongst determinants<sup>18</sup>.

Bullying in high schools in Amman has been found to have a negative impact on the emotional well-being of teenagers. The study suggested a link between bullying experiences and an elevated risk of mental health issues, without providing specific details on these challenges or precise statistics on prevalence among Jordanian adolescents<sup>29</sup>. Another study demonstrated that persistent harassment and aggression can result in heightened stress, anxiety, and apprehension, which are typical indicators of mental health conditions like depression, post-traumatic stress disorder, and anxiety disorders<sup>30</sup>.

Approximately 20% of students in Jordan aged 12-18 experience bullying. In Irbid, bullying is a significant issue, especially among children and adolescents. Approximately 35% of students aged 13-15 have encountered bullying<sup>27</sup>. This problem may be even more widespread within specific groups such as refugees and displaced populations. The incidence of bullying differed based on gender, age, and economic status with higher rates observed among males, younger students, and those from low-income households. Vulnerable groups like refugees or marginalized communities may encounter these factors more frequently due to their precarious circumstances and the social as well as economic difficulties they confront<sup>30</sup>. Another paper specifically identified bullying as a prevalent issue, affecting approximately 47% of the Jordanian 6th-grade students (11-12 years old) surveyed in the city of Amman. Significantly more boys reported being bullied than girls<sup>31</sup>.

The impact of adverse childhood experiences and adult traumas on mental health can be further exacerbated by societal barriers like stigma, lack of awareness, and restricted access to mental health services. Individuals who have experienced ACEs or adult traumas may also face challenges in forming positive relationships, which could contribute to a cycle of heightened mental health vulnerabilities that increase the risk of being bullied. Altogether, these elements form an intricate matrix of interconnections that collectively shape the mental health journey of an individual<sup>18 26 27 30</sup>.

### ❖ *Physical & psychological health*

In exploring the dynamics of mental health in Jordan, the interplay between physical and psychological factors, limited number of studies were found. These studies established a link between genetics & biological factors, prenatal & perinatal factors, physical health, health behaviours and development of mental health problems such as depression and anxiety<sup>20 32 33 21 34 35 36 37 38 39 40</sup>.

The contribution of genetics to mental health disorders such as depression, anxiety, schizophrenia, bipolar disorder, and eating disorders has been established. However, there is a lack of studies addressing the genetic influence on mental health in Jordan or similar settings<sup>32</sup>.

Prolonged exposure to high cortisol levels can be linked to various mental health challenges, potentially increasing susceptibility to conditions like anxiety and depressive disorders<sup>33</sup>.

The age factor can significantly influence the probability of experiencing mental health issues, particularly depression and anxiety<sup>20 21</sup>. One research indicated a connection between age and the frequency of Common Mental Distress, which is an indicator of mental health issues<sup>40</sup>.

Older students were identified as being more susceptible to developing depressive symptoms compared to younger ones in cases of depression. Likewise, older children exhibited lower rates of attention deficit hyperactivity disorder and its subtypes<sup>20</sup>. It was observed that individuals aged 35-49 years (10.2%), 50-64 years (13.4%), and those 65 years or older (11.9%) showed a greater occurrence of FMD compared to individuals in the age group of 18-34 years (8.2%). This indicates that the likelihood of mental health issues may rise with age<sup>40</sup>. The risk of developing depression and anxiety decreased significantly in the older age group (above 50 years old) compared to the younger population, but details of this correlation were not well explained<sup>21</sup>.

Among Syrian refugees, age was found to be associated with the likelihood of experiencing post-traumatic stress disorder and depression; however, the exact nature of this correlation was not clearly outlined<sup>34</sup>. Older individuals showed a higher level of symptoms and severity associated with PTSD, indicating age as a contributing factor in susceptibility to mental health disorders<sup>34</sup>.

Factors such as gender, family income, academic performance, and previous history of mental illnesses were often associated with age. Older female students and those with lower



academic achievement were identified to have an increased likelihood of experiencing depressive symptoms <sup>20</sup>. In addition, those with less than a high school education reported lower social health and more severe PTSD symptoms compared to those with higher levels of education <sup>34</sup>.

Few studies have linked prenatal and perinatal factors to the mental health of mothers, suggesting an association between elements like prolonged labour, multiple vaginal examinations, episiotomy, and painful suturing with a higher likelihood of postpartum depression <sup>35</sup>. One study about Jordanian pregnant women showed that several prenatal and perinatal aspects like maternal lifestyle, diet, physical health, exposure to traumatic events or stress during pregnancy could influence the susceptibility to mental health issues in both the mother (e.g., depression, anxiety, psychosis) and potentially in the child (e.g., ADHD, autism) <sup>36</sup>. Furthermore, these pregnant women, who experienced low quality medical care during childbirth and felt scared and helpless were more likely to report symptoms indicative of postnatal depression. The research revealed that the prevalence of depressive symptoms among pregnant women in Jordan during COVID-19 quarantine was 36.8%, highlighting the common occurrence of mental health issues during pregnancy <sup>36</sup>.

Various factors including anxiety levels, stress, unplanned pregnancy, lack of social support, challenging marital relationships, low self-confidence, and financial concerns significantly impacted the mental health of pregnant women and could possibly lead to antenatal and postnatal depression <sup>35</sup>.

In reference to physical health, people with disabilities in Jordan, especially refugees, faced an elevated susceptibility to encountering mental health issues <sup>38</sup>. The 2007 survey in Jordan found a significant link between chronic medical conditions such as high blood pressure and diabetes and increased occurrence of Frequent Mental Distress. Disability was estimated to affect 11-15% of the population, representing more than 1,100,000 individuals. Injured refugees revealed that 80% encountered psychological distress due to trauma from conflict and displacement <sup>40</sup>.

Regarding disability, it was associated with gender-based violence services in Jordan, which pose constraints. Women with disabilities were shown to be more susceptible to abuse and social stigma than men with disabilities, leading to mental health concerns among this group<sup>38</sup>.

With reference to physical exercise, a significant link was established between it and improved mental health outcomes. High levels of perceived depressive symptoms were

associated with lack of physical activity, while participation in exercise was linked to reduced depressive symptoms<sup>37 39</sup>. According to a study in Lebanon, an unhealthy lifestyle could intensify depression and anxiety, whereas maintaining a balanced diet, regular physical activity, and sufficient sleep can significantly impact mental well-being<sup>41</sup>.

A study found failure to meet moderate to vigorous physical activity guidelines was associated with a higher prevalence of anxiety and depression symptoms. Only 31.5% of participants met the recommended MVPA levels<sup>37</sup>. Another study reported that 51.8% of Jordanian adults did not partake in moderate physical activity<sup>39</sup>.

There was a correlation between physical health and income, as individuals with lower incomes might have limited access to resources for maintaining their physical health and managing medical conditions, increasing the risk of FMD<sup>40</sup>.

The mental health of Syrian refugees in Jordan was affected by health behaviours. Smoking status was significantly linked to the occurrence and severity of post-traumatic stress disorder among these refugees, with smokers reporting more intense PTSD symptoms compared to non-smokers or those who had quit<sup>34</sup>.

#### ❖ *Life experiences & opportunities*

This category involves life transitions, migration and hobbies & leisure time. It was found that these factors influence susceptibility to develop mental health disorders<sup>34 42 43 44</sup>.

Regarding life transitions (see glossary); one study found a link between life transitions and mental health issues in children, including mood disorders, developmental disorder, behavioural problems, and increased social difficulties. This is the sole relevant study found concerning this determinant's impact on the mental health of the Jordanian population<sup>42</sup>.

Migration (see glossary) can lead to mental health issues and stress due to social disconnection, discrimination, cultural shock, language barriers, and financial challenges. Accessing healthcare may be difficult due to language barriers and worsen these mental health issues<sup>43</sup>.

Concerning leisure activities and hobbies, global studies have indicated they played a protective role in mental health, particularly benefiting older adults and individuals who are unemployed<sup>44</sup>. One study on the mental health of Syrian refugees found no significant association between extended hours of TV viewing and PTSD<sup>34</sup>. No studies were found relating this determinant with mental health of Jordanians.

## ❖ *Identity*

The impact of identity - encompassing ethnicity & culture, gender, sex, gender identity & sexual orientation, religion, spirituality & faith - on mental health has been established in various studies in Jordan<sup>20 30 40 45 46 22</sup>.

The surrounding culture, particularly within Arab societies where mental health problems are often not discussed and viewed with cautious, was shown to lead to hesitance in seeking professional care for mental health and therefore worsening of existing mental health problems but the study did not specify the prevalence of issues<sup>45</sup>. Groups like refugees often display these influencing factors more frequently while also being affected by stressors such as displacement, trauma, and cultural alienation<sup>46</sup>.

Religion, influential in Jordan, emerged as a protective factor against mental illnesses. The study noted that gender could potentially interact with religiosity on perceptions of mental health. Female students displayed higher religious beliefs and were judgmental towards people with mental illnesses<sup>46</sup>.

Gender has a significant impact on the development of mental health issues, especially among children and adolescents in Jordan, both directly and indirectly<sup>20 34 40</sup>.

One study found the prevalence of mental health-related symptoms was higher in females than in males, particularly when it comes to internalizing problems like depression and anxiety. This contradicts typical distributions observed in community samples where males generally show higher levels of externalizing disorders such as rule-breaking and aggression, indicating a shift from the norm for this population<sup>20</sup>. It was indicated that most of the mentally institutionalized adolescents were male (56%)<sup>20</sup>. A different study found a higher prevalence of FMD in females at 11.8% compared to 9.0% in males<sup>40</sup>. Females were more susceptible to various mental health issues, such as depression, anxiety, post-traumatic stress disorder, and eating disorders<sup>34</sup>. The prevalence of moderate to severe depression symptoms was higher in female adolescents compared to male adolescents, with 41% of girls and 26% of boys showing signs<sup>20</sup>. The prevalence of depressive symptoms was found to be higher among adolescent girls while males demonstrate greater PTSD symptoms due to exposure to traumatic events like mass executions and torture<sup>34</sup>.

Gender representation among Syrian refugees and Jordanian non-refugees was almost even in most studies, with females ranging from about 40% to 50% of the sample populations<sup>20 34 40 22</sup>.

Studies suggested that factors such as age, gender, and economic status could impact mental health outcomes. Young males from low-income families were more susceptible to bullying, which increases the risk of developing mental health issues. Gender intersects with academic performance and smoking habits to further influence mental well-being. In refugee settings like Jordan, women face higher exposure to gender-based violence and sexual assault, lower wages for their work, and challenges related to divorce leading to elevated rates of mental health problems<sup>20 30 22</sup>.

#### ❖ *Personal traits*

This subcategory includes resilience, sense of self, personal aspirations & ambitions and individual autonomy. It was shown that these determinants are associated with developing mental health disorders<sup>47 48 49</sup>.

With reference to resilience (see glossary), it was emphasized that greater resilience levels were significantly linked to reduced levels of self-reported depressive symptoms, indicating that resilience might serve as a protective factor against the onset of depression<sup>47</sup>. Another research from diverse global settings, including Jordan, indicated that resilience could potentially decrease the likelihood of various mental health issues, such as indicators of post-traumatic stress disorder, depression, and outwardly directed behaviours<sup>48</sup>. Resilience has been extensively examined in Jordanian university students and Iraqi refugees in Jordan, highlighting the negative impact of depression on resilience among university students, and the positive association between perceived social support from friends and resilience<sup>50</sup>.

In relation to sense of self, one study conducted in Jordan revealed that a strong sense of self-worth played a significant role in the lives of Jordanian adolescents, shielding them from mental health disorders<sup>51</sup>. No additional research has been identified within the region that correlates self-esteem and mental health. Furthermore, self-esteem, depression, and life satisfaction were all associated to different extents with social support<sup>51</sup>.

Regarding personal aspirations and ambitions (academic performance, financial success, etc.), academic performance plays a significant role in determining the mental health of children and adolescents in Jordan. Research consistently showed that lower or moderate

academic achievement is linked to an increased prevalence of depressive symptoms among this group. Multiple studies results highlighted the positive correlation between strong academic performance and improved mental well-being <sup>20</sup>. There was no specific prevalence data available regarding personal aspirations and ambitions in the population of Jordan.

Personal ambitions appeared to be influenced by a variety of interconnected factors. For instance, studies have linked elements such as being female, having a lower family income, and a previous history of mental disorders with decreased academic performance and an increased susceptibility to mental health issues <sup>20</sup>.

In relation to individual autonomy (see glossary), no research has been identified within the region that correlates the determinant and mental health. However, a global study revealed that failing to acknowledge personal autonomy could negatively impact an individual's mental health, potentially causing feelings of frustration, powerlessness, or reduced self-esteem <sup>52</sup>.

#### ❖ *Sociodemographic*

Social factors such as income, housing, education, and employment have been linked to the vulnerability of mental health issues among people in Jordan <sup>20</sup>. Economic difficulties such as insufficient income and limited employment opportunities are major factors contributing to the stress experienced by Syrian refugees in Jordan <sup>53</sup>.

Numerous studies have investigated the intricate relationship between income levels and mental health among Jordanian populations. Low financial resources have consistently been associated with increased stress, despair, and a higher risk of anxiety disorders and depression <sup>21 54 55</sup>. A study investigated the impact of income satisfaction among Jordanian women and found that dissatisfaction with income was linked to a higher likelihood of experiencing Postpartum Depression (PPD) <sup>56</sup>. Studies across various Jordanian communities revealed that reduced family income predicted adverse mental health outcomes in women, such as depression, decreased quality of life, and sleep issues <sup>23</sup>. Furthermore, individuals living in households with monthly incomes below JD 300, as well as those with low family incomes, exhibited a heightened risk of depressive symptoms. They reported feeling frustrated with inflation and inability to support household <sup>20</sup>. Interestingly, higher income levels were associated with an increased likelihood of anxiety among Jordanian individuals because with higher income came increased work responsibilities or societal expectations <sup>21</sup>. Additionally, adults with lower monthly incomes showed a notably higher prevalence of Functional Somatic Syndromes (FMD) compared to those with higher incomes <sup>40</sup>.

Financial constraints are recognized as a major obstacle to accessing refugee services in Jordan. Refugees living outside of camps and in rural areas face challenges with the expense and accessibility of transportation to treatment centres<sup>54</sup>. Moreover, limited income might not only heighten stress but also restrict the ability to seek mental health support due to transportation costs, as highlighted in this research<sup>55</sup>.

With regards to housing (see glossary), poor housing conditions can contribute to psychological distress<sup>55</sup>. It was found that children who were living with one parent or people other than their parents were found to be less likely to have mental disorders than those living with both parents<sup>20</sup>.

Regarding education; lower education levels predicted worse mental health outcomes. A lower educational level among women was linked to negative mental health indicators<sup>23</sup>. The correlation between educational background and mental well-being has been highlighted, particularly within the healthcare sector. It was observed that doctors exhibit elevated levels of anxiety and depression in comparison to other healthcare professionals. This was attributed to their frontline roles in treating patients as well as being more prone to physician burnout and increased time away from family<sup>21</sup>. In the student population, which consists of individuals from public schools, it has been observed that those with lower academic performance were more prone to displaying increased emotional and behavioural difficulties<sup>20</sup>.

The education level of refugees was found to be significantly associated with PTSD symptoms. More specifically, it was found that refugees with higher education showed more symptoms of PTSD. This was due to having a better understanding of the displacement situation and awareness of the difficulties they would possibly face<sup>34</sup>.

In reference to employment; unemployment could result in stress and feelings of despair, which are contributing factors for depression and anxiety conditions<sup>55</sup>. The mental health of those engaged in demanding work environments was more likely to be impacted by anxiety and depression compared to the general population<sup>21</sup>. In addition, it was noted that Jordanian adults who were not employed exhibited a notably higher occurrence of FMD compared to those who had jobs<sup>40</sup>. There was no specific prevalence data available regarding employment impact on mental health of the population of Jordan.

It was shown that refugees faced challenges with housing stability due to insufficient income, leading to difficulties in paying rent and resulting in unstable living conditions. Financial stress

placed on families could lead children to participate in child labour instead of attending school, causing interruptions in education and potential psychological strain <sup>53</sup>.

### 3.2.2 Family Determinants

<b>Family</b>
<i>Family dynamics</i>
<i>Family structure</i>

Table 3: Family Determinants <sup>3</sup>

#### ❖ *Family dynamics*

Multiple elements including attachment, parenting approaches, extended family connections, discord and conflict, and family bonding were found to have a substantial impact on the likelihood of mental health issues. This particularly pertains to depressive symptoms in people from the capital city of Amman <sup>57</sup>. In addition, these factors could significantly impact the likelihood of children developing mental health issues <sup>58</sup>.

Regarding attachment (see glossary), especially insecure attachment styles, were linked to depression, while a secure attachment style had a negative correlation with depression <sup>57</sup>.

In relation to parenting, the mental well-being of adolescents might be linked to parental actions such as maternal control, inconsistent paternal behaviour, and rejection from either parent <sup>59</sup>. The way parents raised their children significantly influenced children's emotional and mental well-being <sup>58</sup>. The way parents exercised their authority, specifically authoritarian parenting, also had a considerable impact and was linked to children feeling stifled <sup>57</sup>. The emotional and mental well-being of children were heavily impacted by parental attachment and parenting style <sup>58</sup>.

The dynamics within extended family relationships could significantly impact a child's mental health. Cultural practices in Jordan, such as children living with their parents until marriage, might shape individuals' attachment styles and indirectly affect their predisposition to developing depressive symptoms <sup>57 58</sup>. The increased role of grandparents, particularly paternal grandmothers, could diminish the mother's influence in the family, leading to potential tension and mental health issues for children <sup>58</sup>.

With regards to discord and conflict (see glossary); tension within families and increased separation and divorce rates have been linked to worsening children's behavioural problems,

increasing the likelihood of developing mental health issues. Childhood experiences of conflict and discord contributed to depression and emotional disorders in later life <sup>60 58</sup>.

With reference to family connectivity; the quality of connections significantly impacted the development of depressive symptoms in children <sup>57 58</sup>.

#### ❖ *Family structure*

This subcategory has under it; caring responsibilities, intergenerational (dis)advantage, household composition, marriage and civil & domestic partnerships. These determinants were indicated to impact mental health and further influence the developing of depressive disorders <sup>34 61 62 63</sup>.

Caring responsibilities were found to elevate the likelihood of encountering mental health issues, such as anxiety and depression <sup>61</sup>. The increased levels of responsibility could result in negative mental health effects for the caregiver, such as elevated stress, anxiety, and depression <sup>62</sup>. Furthermore, mothers in Jordan caring for children with Autism Spectrum Disorder experienced disrupted sleep patterns, feelings of helplessness and fatigue. They also encountered stress, social exclusion, and domestic violence while fulfilling caregiving responsibilities. These burdens often led to inadequacy and guilt among female family members who care for individuals with mental health issues <sup>61</sup>.

Regarding intergenerational dis(advantage) (see glossary); no results were found to support the influence of this determinant on mental health of Jordan's population. However, intergenerational transmission was found to offer mental health protection. Parents with high income and better socioeconomic status were able to give their children more resources and were able to support them throughout early life <sup>64</sup>.

In relation to structure of the household, it was implied that crowded or intricate households could be a factor in contributing to mental health difficulties. Especially having other children and family members around introduced an additional layer of complexity and potentially heightened stress for these mothers <sup>63</sup>. Household composition intertwines with displacement in way that resulted in the creation of new households headed by women. This situation could lead to a higher caregiving responsibility for these women, which may indirectly impact their mental health <sup>65</sup>.

With regards to marriage and civil & domestic partnerships; marriage appeared to offer protective effects against depression, with married individuals showing a lower risk compared



to those who are single, divorced, or widowed. It was suggested that individuals in marital or domestic partnerships are less likely to experience depression due to companionship and shared responsibilities <sup>21</sup>. Conversely, divorce was associated with increased risks of depression and anxiety, which may counteract the benefits of marriage. In addition, domestic abuse situations were found to heighten the susceptibility to mental health problems <sup>61</sup>. Strained family and marital relationships may increase the likelihood of developing mental health issues such as depression <sup>63</sup>. Moreover, intimate partner violence (IPV) significantly affected women's mental health in Jordan. Experiencing psychological partner violence increased vulnerability to depression, stress, and anxiety. IPV also served as a predictor for various mental health conditions and creates feelings of fear, shame, and stigma, which hinder victims from seeking help, further impacting their mental well-being <sup>23 66</sup>.

A study found that the marital status of Syrian refugees influenced PTSD symptoms <sup>34</sup>. Marital status also impacted the symptoms of PTSD among Syrian refugees in Jordan, with variations seen among married and single individuals <sup>34</sup>.

### 3.2.3 Community Determinants

<b>Community</b>
<i>Systems &amp; services</i>
<i>Social environment</i>
<i>Geographic &amp; physical environment</i>

Table 4: Community Determinants <sup>3</sup>

#### ❖ *Systems & Services*

In relation to health & social care, public & community services and criminal justice system; various studies highlighted the influence of these determinants on mental health outcomes in Jordan. It was found that these determinants presented obstacles in accessing, diagnosing, preventing, and managing mental health issues which led to worsening of existing mental health problems <sup>5 67 68 55</sup>. \*

With regards to health and social care (see glossary) within Jordanian population in general, research explored various aspects of Jordan's healthcare system that impact mental healthcare, especially in addressing depression. The study highlighted gaps in physician knowledge and training related to the diagnosis and treatment of depression, restricted availability of

antidepressant medication at primary health clinics, and privacy issues within health facilities as major obstacles to accessing mental healthcare <sup>5</sup>. Another study conducted by Baca et al. shed light on the obstacles and potential advantages of Jordan's mental healthcare system. The research highlighted the imbalances in service availability across different geographic regions, with a strong focus on urban areas such as Amman and limited services in Balqa, Madaba, and Kerak <sup>67</sup>. It also showed the emphasis on community-based initiatives, challenges in gathering comprehensive data on training and staffing resources, as well as the changing role of national NGOs in providing mental health services in Jordan which improved the overall mental health situation <sup>67</sup>.

The current public and community services in Jordan posed multiple difficulties in terms of accessing, diagnosing, preventing, and managing mental health problems, particularly for refugee populations <sup>68</sup>. Hannah B. Egan emphasized the significant influence of Jordan's healthcare system on the mental health of Iraqi refugees. The study detailed systemic challenges that affect mental health outcomes, including underdevelopment and weak infrastructure in the system. These challenges encompassed a lack of national professional leadership, limited interaction between primary healthcare workers and mental health services, reduced funding for mental health programs, and a shortage of mental health professionals - all contributing to substantial obstacles in delivering effective mental healthcare in Jordan, hence influencing mental health and wellbeing <sup>68</sup>.

Bawadi et al.'s qualitative research on mental health service utilization among Syrian refugees in Jordan highlighted key factors within the healthcare system that impacted service accessibility. Issues such as limited availability, accessibility, affordability, and geographic constraints posed significant obstacles to accessing mental health services <sup>55</sup>. The scarcity of specialist doctors, restricted service days, geographical distances, and transportation expenses were identified as major barriers preventing refugees from obtaining adequate mental health support in Jordan which in turn amplified any existing mental health problem <sup>55</sup>.

In relation to public & community services (see glossary); good access to public transportation might help lower the risk of depression, particularly for women and elderly individuals, by providing more chances to be active in social life through increased mobility <sup>69</sup>. In addition, this group of determinants were considered protective factors for mental health as it made it possible to access jobs, social networks, health care, and education <sup>70</sup>. These were results from studies conducted globally as there were no results available relevant to Jordan population or neighbouring setting.

With regards to the influence of criminal justice system on the mental health; it was found that individuals incarcerated in prison were at an elevated risk of developing mental health issues, including depression, anxiety, and psychosis. This heightened susceptibility might be attributed to their exposure to violence and prolonged periods of isolation <sup>71</sup>. These were results from studies conducted globally as there were no results available relevant to Jordan population or neighbouring setting.

#### ❖ *Social environment*

This includes a group of determinants consisting of social support & networks, social inclusion & cohesion, civic engagement and mental health awareness.

It is indicated that these determinants have influence on mental health and are associated with mental health disorders <sup>51 55 72 73 74 75</sup>.

Several research studies have explored the relationship, between social support and the mental wellbeing of adolescents in Jordan. One study unveiled connections between various types of social support (such as family, friends, and significant others) and adolescents' mental well-being. Both direct and indirect family support were identified as contributors to boosted self-esteem and overall life satisfaction, serving as a protective factor against depressive symptoms <sup>51</sup>. The research highlighted the significant role of support in alleviating adolescent depression, irrespective of gender. Furthermore, the impact of friendship support on mental health outcomes appeared prominent. Interestingly, both family and friend support demonstrated negative associations with depressive symptoms among boys <sup>51</sup>.

Additionally, another study shed light on the perceptions of social support and stress encountered by Jordanian adolescents. It emphasized the pivotal role of family social support in shaping adolescents' stress perceptions <sup>72</sup>. Strong negative correlations between perceived stress and family social support indicated that higher levels of family support were associated with reduced stress perceptions. Conversely, the link between friends' social support and perceived stress appeared weaker, suggesting a comparatively lesser impact on stress perception among adolescents <sup>72</sup>.

Furthermore, experiences of Syrian refugees in Jordan were explored, examining perceived stress, social support dynamics, prevalent mental health symptoms (depression, anxiety, and PTSD), and contextual factors among Arabic-speaking refugees in Amman. Their study revealed the nuanced influence of social support on mental health outcomes among refugee

populations, highlighting the importance of considering diverse contextual settings in host countries <sup>73</sup>. Despite a shared prevalence of perceived stress among refugees, the impact of different forms and sources of social support in promoting well-being and integration varied significantly <sup>73</sup>.

Social marginalization and exclusion have strong associations with mental health issues, leading to feelings of isolation, decreased self-worth, and heightened stress <sup>76</sup>. Limited social inclusion or integration may raise the risk of posttraumatic stress disorder and depression, especially among individuals who have experienced trauma, such as refugees <sup>77</sup>. However, these findings are based on global studies, lacking specific research focused on the Jordanian population or neighbouring settings.

Regarding civic engagement, engaging in volunteer work has shown potential benefits for mental well-being. Volunteerism is linked to reduced depression levels, increased life satisfaction, and overall wellness promotion <sup>78</sup>. Additionally, studies suggest that both altruistic volunteering for others and self-centred volunteering for personal gains can significantly impact mental well-being positively <sup>79</sup>. However, these conclusions are drawn from global studies and lack specific relevance to the Jordanian population or neighbouring regions.

Mental health awareness was another segment of the social environment subcategory that was reviewed. The influence of awareness in Jordan on the mental health of Jordanians, displaced populations, such as Iraqi and Syrian refugees, has been a subject of several studies.

One study suggested that raising awareness could potentially have a substantial impact on reducing the likelihood of experiencing mental health issues such as depression. It was found that the general population in Jordan possesses an adequate level of understanding regarding the nature and indications of depression <sup>80</sup>. The degree of public awareness may significantly affect the susceptibility to developing mental health problems. High level of awareness frequently resulted in prompt identification and more efficient management, thereby diminishing the prevalence and repercussions of these conditions <sup>80</sup>. Conversely, limited awareness levels might cause delays in seeking suitable assistance, increasing the risk of severe mental disorders. Female participants exhibited a notably better comprehension of depression symptoms compared to their male counterparts in Jordan <sup>80</sup>.

Another study conducted among physicians emphasized the problem of inadequate awareness among healthcare professionals. Many doctors expressed that they lacked the

expertise or time to address depression as a diagnosis. Additionally, there was limited familiarity among physicians concerning diagnostic criteria-based assessments <sup>5</sup>.

Hannah B. Egan's study focused on the detrimental effects of inadequate public education and awareness about mental health conditions perpetuate this issue, delaying early recognition and intervention <sup>68</sup>.

Moreover, Bawadi et al.'s study identified broader systemic barriers prevalent among Syrian refugees in Jordan spotlighting the significant influence of awareness and knowledge on mental health-seeking behaviours. The research reveals a concerning trend of low mental health literacy among participants, who lacked a comprehensive understanding of mental health conditions as treatable ailments <sup>55</sup>. This lack of awareness posed a barrier to recognizing the need for professional assistance, thereby delaying access to crucial mental health care services. Consequently, this delay resulted in exacerbated mental health conditions and the worsening of existing mental health disorders among the refugee population <sup>55</sup>. The study indicated the multiple obstacles related to the restricted availability, accessibility, and affordability of mental health services. Geographic, operational, and financial barriers emerged as significant challenges, further hindering the refugees' access to essential mental health care <sup>55</sup>.

The lack of understanding was associated with and often interacts with other factors discussed in the paper, such as stigma, as well as the limited availability, accessibility, and affordability of mental health services <sup>5</sup>. For example, refugees with low knowledge about mental health might not only struggle to identify their mental health issues but also might be more inclined to hold stigmatizing beliefs towards mental illness and treatment. As a result, this stigma could discourage them from seeking help even when services are accessible and affordable. Similarly, despite the presence of cost-effective services, a lack of awareness about these resources could hinder refugees from utilizing them for their mental health requirements <sup>5</sup>.

Looking into built & natural environment; a study conducted in Lebanon suggested that being in natural environments, often called green spaces, can positively affect mental health. Stress, anxiety, and depression were specific mental health issues that may benefit from spending time in nature <sup>74</sup>. Green spaces have been associated with reducing stress, helping to recover from mental fatigue, lowering anxiety levels, and decreasing depression symptoms. Refugees and other specific demographic groups might experience these benefits more frequently when placed in areas without green spaces. This was important because their mental health may already be affected by traumatic experiences and the stresses of displacement <sup>74</sup>. These were

results from a study conducted in Lebanon as there were no results available on Jordan population.

When it comes to the differences, between living in rural and remote areas there is evidence suggesting that residing in environments may increase the risk of experiencing mental disorders like schizophrenia, depression and anxiety <sup>75</sup>. Factors such as noise, overcrowding, violence and the paced lifestyle commonly found in cities could contribute to the development and persistence of these illnesses. Moreover, higher levels of inequality within areas might lead to stresses related to feelings of exclusion, threat and mistrust that could potentially trigger psychotic symptoms <sup>75</sup>.

Living in a neighbourhood has also been associated with a likelihood of facing various mental health issues. This can be attributed to increased exposure to stressors such as crime, violence and social disorder <sup>75</sup>. The level of community safety significantly impacts individual's mental wellbeing. Areas with crime rates or violence may result in stress, apprehension and unease among residents. Consequently, this increases the chances of developing health problems <sup>75</sup>. These findings are based on studies conducted globally since there is no data, for Jordan's population or similar settings.

### 3.2.4 Structural Determinants

<b>Structural</b>
<i>Broad factors</i>
<i>Industry</i>
<i>Government &amp; political</i>
<i>Norms &amp; rights</i>

Table 5: Structural Determinants <sup>3</sup>

#### ❖ **Broad Factors**

Exploring the impact of determinants categorized under "broad factors"; inequality, climate change, and displacement, on mental health. Studies found these determinants increased the risk of developing mental health problems within Jordan population including refugees <sup>68 34 81 82 83</sup>.

Inequality emerged as a pivotal factor influencing mental health outcomes. One study elucidated profound mental health disparities experienced by marginalized ethnic and sexual

groups, amplifying stress, and societal marginalization. These disparities underscored the vulnerability of affected populations, potentially heightened susceptibility to mental health issues<sup>81</sup>. These were results from studies conducted globally as there were no results available relevant to Jordan population or neighbouring setting.

Climate change represents another determinant significantly impacting mental health in Jordan. Elevated stress and anxiety among Jordanians due to environmental challenges, particularly intensified water scarcity, are well-documented. These environmental stressors pose a tangible risk for mental health problems, contributing to an overarching sense of unease and anxiety pervading various segments of Jordanian society<sup>82</sup>.

Egan et al. (2011) shed light on the impact of displacement (see glossary), uncertain legal status, and difficult living conditions on the mental health challenges faced by Iraqi refugees in Jordan. The stress of living in Jordan without legal status, inadequate employment opportunities, and challenges integrating into society compounded mental health issues for Iraqi refugees<sup>68</sup>. Additionally, limited funding and resource allocation contributed to declining mental health programs for refugees, alongside weaknesses in the Jordanian mental healthcare system and insufficient public awareness campaigns, perpetuating stigma and ignorance about mental health issues<sup>68</sup>.

Furthermore, the mental health challenges faced by Syrian refugees within the host community encompassed a myriad of stressors experienced pre, during, and post-migration. These stressors, varying based on location, economic status, culture, and socio-political circumstances, played a pivotal role in post-migration distress<sup>34</sup>. Addressing these multifaceted challenges through public health policies emerges as a critical necessity, involving financial difficulties, employment struggles, governmental regulations, and concerns about psychological and physical well-being<sup>34</sup>.

The intricate nexus between climate change and displacement presents formidable challenges, particularly for displaced populations and vulnerable groups in Jordan affecting marginalized groups, ethnic minorities, and refugees in various regions of the country. Environmental disruptions attributed to climate change have notably heightened psychological trauma among these populations. These climate-induced adversities exacerbated stress, anxiety, and feelings of hopelessness, significantly impacting the mental well-being of vulnerable groups<sup>83</sup><sup>82</sup>. Notably, regions adjacent to borders accommodate a substantial population of displaced individuals, a number that fluctuates due to ongoing conflicts in

neighbouring countries. This flux highlights the dynamic nature of these determinants' impact and their distribution within Jordanian society<sup>83 82</sup>.

Furthermore, these determinants exhibited interconnections, showcasing their mutual influence on mental health. Inequality intertwines with economic inequalities and societal biases, while climate change contributes to resource instability and uncertainties, significantly impacting mental health across Jordan. Neira et al. argued that the scarcity of psychological support significantly complicates addressing the mental health implications of climate change in the Eastern Mediterranean and Middle East region. The lack of access to psychological counselling becomes a major obstacle for the well-being of displaced populations<sup>83</sup>. Additionally, displacement exacerbates these challenges, heightening mental health problems among vulnerable populations<sup>81 82</sup>.

#### ❖ *Industry*

This subcategory encompasses commercial factors and media & advertising. These factors have direct and indirect impact on mental health and possibly can exacerbate mental health disorders<sup>84 85 86</sup> Hasan et al., 2017).

Commercial factors (see glossary) like unhealthy products, detrimental business practices, and market-based economies may have an indirect influence on mental well-being. For example, the promotion and use of specific items such as highly processed food could potentially have adverse effects on mental health<sup>84</sup>. Likewise, certain unfavourable business and market behaviours might contribute to feelings of stress and anxiety<sup>84</sup>. These were results from studies conducted globally as there were no results available relevant to Jordan population or neighbouring setting.

Social media has become pervasive across Jordan, with a substantial section of the population regularly engaging with these platforms. In the Jordanian context, considerable research has been devoted to studying the impact of media and advertising on mental health. One study established a significant association between social media use and mental health issues, particularly anxiety and depression, among Arabic-speaking individuals in Jordan<sup>86</sup>. Increased involvement with social media was correlated with heightened levels of depression and anxiety, influenced by factors such as perceived usefulness, ease of use, trust, social influence, and telepresence. Moreover, this study highlighted the crucial role of individuals' intentions in using social media, suggesting an avenue for altering usage patterns to address mental health challenges<sup>86</sup>.



Similarly, a 2020 study highlighted the role of social media during the COVID-19 pandemic, emphasizing its effectiveness in disseminating health-related information and advocating behaviours conducive to overall well-being. This underlines the potential positive influence of social media on mental health by promoting awareness and healthy habits <sup>85</sup>.

The influence of social media intertwines with societal factors, exacerbating or mitigating disparities related to equality and equity. It has the potential to aggravate access inequalities to vital information, potentially widening societal rifts <sup>85 86</sup>. Additionally, it intersects with broader societal issues such as discrimination and prevailing social norms, impacting mental health perceptions by perpetuating biases and stigma <sup>85 86</sup>.

Social media could perpetuate biases and misconceptions related to mental health, hindering individuals from seeking or accessing mental health services due to fear of judgment or shame. Conversely, it can also alleviate differences by fostering supportive communities, raising awareness, and amplifying voices advocating for mental health rights. It plays a pivotal role in combating stigma by facilitating inclusive conversations and sharing accurate information about mental health <sup>87</sup>.

#### ❖ *Government & political*

This includes economic conditions, government policies & legislation, the welfare system, political structures & climate and global politics & events. Several studies revealed these determinants were associated and potentially led to depression, anxiety and other mental health disorders <sup>88 89 90 6 91</sup>.

Economic crisis in Jordan has been demonstrated to play a role in mental health conditions like depression and anxiety. In more extreme instances, there may be a rise in the rate of suicides <sup>88</sup>. Economic recessions could worsen health discrepancies by disproportionately affecting those who are already socially or economically marginalized. They frequently led to job loss, decreased income, and financial insecurity, which can result in increased levels of stress and anxiety <sup>88</sup>. Furthermore, during economic upheavals, individuals were showing tendencies to delay or go without necessary medical care due to financial worries, potentially leading to deteriorating health conditions and overall poorer health results <sup>88</sup>.

With regards to government policies & legislation; despite efforts to improve young people's health through policies like the National Strategy for Health Sector (2015-2019) and mental health programs in schools, disparities persisted. Inconsistent provisions of youth-friendly

health services, cultural norms, and biases among healthcare providers posed challenges, exacerbating unmet mental health needs <sup>91</sup>. The OECD Development Centre's exploration of youth well-being policies in Jordan highlighted comprehensive policies targeting various aspects like health, education, employment, and civic participation among young people <sup>91</sup>. Additionally, limited youth civic engagement initiatives impacted mental health, depriving youths of outlets to express concerns, emphasizing the necessity for tailored policies addressing mental health issues <sup>91</sup>.

With reference to the welfare system (see glossary); Jordan has initiatives designed to improve the social and economic welfare of its population, such as programs for social protection and welfare <sup>89</sup>. These efforts may have an indirect impact on mental health outcomes in the country. Jordan currently operates a social protection system that traditionally supports certain segments of society, including those who are poor, elderly, abused women, and children. However, concrete data regarding the prevalence of these programs was not provided in the paper <sup>89</sup>.

Looking into political structures & climate; transitions in political structures could result in a period of restricted economic expansion. This poses a risk to mental health as it may impact the allocation of resources for healthcare and individuals' financial stability <sup>92</sup>. These were results from a study conducted globally as there were no results available relevant to Jordan population or neighbouring setting.

Another determinant in this subcategory is the Global politics & events; The COVID-19 pandemic in 2020 reshaped global experiences, generating uncertainties and fear among people worldwide, potentially heightening anxiety and stress levels, consequently triggering mental health disorders <sup>90</sup>. Studies have found that post-COVID-19 patients often exhibited elevated anxiety and fear, significantly impacting their overall well-being and quality of life. These findings coincided with prior research that indicated prolonged psychological effects of public health crises, emphasizing the imperative need for mental health support in post-pandemic recovery efforts <sup>90</sup>.

A study conducted by Khatatbeh et al. examined the psychological repercussions of the COVID-19 pandemic on Jordan's general population. The research discovered a substantial rise in stress levels among participants, underscoring the pandemic's considerable impact on their mental well-being. The study highlighted a diverse range of responses within the population facing pandemic-related stressors, emphasizing the substantial influence on mental health <sup>6</sup>. The pandemic's impact on families, particularly those with diagnosed family members or close

friends, amplified mental health pressure among individuals. Regional variations in mental distress were observed in different areas of Jordan, with higher psychological distress noted in Northern and Central regions compared to the Southern region, potentially influenced by COVID-19 case rates, cultural dynamics, or mental health resource availability. This research emphasized the significance of considering local contextual nuances when examining psychological outcomes<sup>6</sup>. Hastings et al.'s study provided further insights into the pandemic's effects on family mental health in Jordan. Families, especially those with young children and economic strain, faced profound stress and adjustments across various life dimensions<sup>33</sup>. Maternal well-being was found to intricately relate to children's adjustment, indicating the crucial role mothers play in maintaining their children's emotional and psychological well-being during crises. The decline in maternal mental health had cascading effects on family stability and support during this challenging period<sup>33</sup>.

Healthcare workers (HCWs) were another segment that was impacted during the pandemic. A cross-sectional study explored the psychological well-being of HCWs in Jordan attending to COVID-19 patients<sup>93</sup>. The study revealed a strong correlation between resilience and psychological issues like anxiety and depression, with lower resilience linked to higher anxiety and depression levels. Factors such as access to personal protective equipment, age, and experience predicted mental disorders among HCWs. Furthermore, their mental well-being was influenced by various work-related factors. Working in private hospitals correlated with lower stress, anxiety, and depression compared to public hospitals. HCWs directly caring for confirmed COVID-19 patients experienced less stress, anxiety, and depressive symptoms compared to those managing suspected cases<sup>93</sup>.

With regards to the mental health of refugees within host communities, specifically Syrians, they were affected by the pandemic and faced various mental health challenges<sup>94</sup>. These challenges spanned worsening pre-existing mental disorders, issues arising from conflict-induced violence and displacement, and difficulties adapting to post-emergency living conditions. The research identified significant stress symptoms influenced by their current situations, accentuating feelings of hopelessness, abandonment, and loss among refugees<sup>94</sup>. Moreover, vulnerable populations in Jordan, such as survivors of sexual or gender-based violence and LGBTQ+ individuals, received inadequate attention due to cultural factors<sup>94</sup>.

### ❖ *Norms & rights*

This subcategory involves Discrimination & stigma, Social & cultural norms and Human rights & social justice. It was evident that these determinants significantly increased the risk of adverse outcomes among individuals with mental health problems <sup>87 95 96</sup>.

Stigma and prejudice had a compounding effect on mental health issues. Individuals with mental illnesses not only experienced the direct impact of their condition but also faced social exclusion due to stigmatization, which could exacerbate their mental health problems, intensify feelings of isolation, and impede treatment or recovery <sup>87</sup>. One study found that 41% of patients faced stigma therefore their treatment was delayed or stopped, they were noncompliant with treatment, or showed delayed improvement <sup>95</sup>. Another systemic review indicated that 62% of women who are victims of domestic abuse felt reluctant to seek mental health care due to feelings of embarrassment <sup>96</sup>. Adolescents, particularly females dealing with depression, are more prone to increased stigma. This perceived stigma may discourage individuals from seeking treatment and worsen their mental health issues <sup>97</sup>.

Social & cultural Norms influenced mental health challenges, leading to marginalization and isolation. Consequently, affected individuals face obstacles in social integration, impacting their mental well-being and reinforcing the stigma surrounding mental health <sup>96</sup>. Discrimination and socially marginalized groups, such as LGBTQ+ individuals and racial/ethnic minorities, are often more vulnerable to trauma and bullying <sup>27</sup>.

Furthermore, the interplay of stigma with community safety impeded the development of robust support networks and community acceptance. Fear, misconceptions, and negative attitudes within the community contributed to the exclusion of those seeking mental health assistance, amplifying the mental health challenges they face <sup>87</sup>.

The influence of stigma extended into the realm of government & political policies and legislation, affecting mental health awareness and service provision. Societal stigmatization might result in inadequate resources and limited mental health education within government policies, further restricting access to essential mental health services for affected individuals<sup>96</sup>.

Moreover, stigma significantly impacted individual autonomy, affecting an individual's confidence in seeking mental health support. The fear of judgment or discrimination discouraged individuals from accessing crucial mental health services, restricting their autonomy and decision-making capacity regarding mental health care <sup>96</sup>. These determinants collectively shape mental health status in Jordan.

With regards to human rights & social justice; As per the report by the US Department of State on Jordan, there are significant human rights issues concerning lack of investigation and accountability for gender-based violence, threats or acts of violence against LGBTQ+ individuals, and limitations on workers' freedom of association. These issues have been found to affect mental health, potentially leading to conditions such as post-traumatic stress disorder, anxiety, depression, and other forms of psychological distress<sup>98</sup>. The Jordanian government granted Syrian and non-Syrian refugees' access to the public healthcare system, with fees equivalent to those of uninsured citizens. However, unregistered asylum seekers were charged higher foreigner rates at public health facilities, which many could not afford. This exacerbated their existing health conditions further<sup>98</sup>.

### **3.3 Implemented Strategies, Interventions and Available Services Targeting Mental Health**

Various strategies, interventions and available services have been implemented in Jordan to improve health outcomes even though there is no mental health legislation, in place.

Several interventions were identified with promising results in Jordan as presented in (Table 2)<sup>99 100</sup>. The first intervention is psychotherapy. The psychotherapy intervention in Amman, Jordan, delivered through various mental health care settings, addressed the pressing need for mental health services within both Jordanian and refugee communities<sup>99</sup>.

Despite challenges like limited mental health institutions, stigma, and a scarcity of culturally sensitive treatment programs, multiple organizations, including Al Hashmi Clinic, Bright Future, and others, provided psychotherapeutic care. This intervention was vital due to the significant mental health care demand, especially intensified by ongoing conflicts and resettlement issues. Results indicated high satisfaction rates among respondents, with 88.8% expressing positive effects from therapy. Despite ambivalence about stigma, both Jordanian host communities and Syrian refugees showed positive attitudes toward psychotherapeutic treatments, offering valuable insights for future research and the development of effective psychiatric care services for these populations<sup>99</sup>.

Another intervention was the AICS Mental Health Interventions (with Italian Cooperation). The psychosocial program targeted child and adolescent mental health services across multiple regions, focusing on vulnerable groups like children in slums, refugees, and those in care. The interventions included Participatory Action Research, Practice-focused Training Workshops,

Service Transformation, Digital Learning, and Partnership and Networking strategies <sup>100</sup>. Challenges faced involved addressing diverse mental health needs with limited resources and managing the complexity of trauma's effects. While the interventions led to improved service delivery and increased mental health awareness, specific success rates directly linked to these initiatives were not explicitly outlined in the paper. However, the program effectively established interdisciplinary networks, contributing to mental health improvements, as indicated by statistics related to childhood mental health disorders, stress, and post-traumatic stress disorder, although the direct association with the interventions wasn't detailed <sup>100</sup>.

However, other successful initiatives were implemented in Lebanon and can be adapted in Jordan as presented in (Table 3)<sup>101</sup>. One example is the Knowledge Translation (KT) tools initiated to address mental health concerns in a setting where access to mental health services in Primary Healthcare (PHC) centres was inadequate, with one in four adults suffering from mental illness <sup>101</sup>. The program aimed to bridge the gap between academic knowledge and real-life policy application by engaging stakeholders, such as policymakers, researchers, and health workers.

Despite facing challenges like specialist resistance and opposition from PHC managers, the intervention succeeded by early stakeholder engagement, comprehensive training, and continuous dialogue. Its results were notable, validating evidence for the integration of mental health into PHC services, establishing a national task force, including psychiatric medicines in the national essential drug list, enhancing training for PHC staff, and raising awareness and demand for KT tools. Overall, the intervention demonstrated promise in developing evidence-informed health programs and guiding evidence-informed policymaking in Lebanon <sup>101</sup>.

Table 6: Interventions in Jordan <sup>99 100</sup>

Intervention	Psychotherapy (2017)	Italian Cooperation Supported Mental Health Interventions (2019)
<b>Intervention Description</b>	<ul style="list-style-type: none"> <li>- Psychotherapy services provided in Amman, Jordan, by multiple mental health organizations.</li> <li>- Types of therapy (CBT, DBT, etc.) not explicitly mentioned but involved mental health care and counselling sessions.</li> <li>- Provided by various organizations including Al Hashmi Clinic, Bright Future, Caritas Jordan, CharitéHelp4Syria, Center for Victims of Torture, among others.</li> </ul>	<ul style="list-style-type: none"> <li>- Psychosocial program aimed at strengthening child and adolescent mental health services in various regions including Turkey, Jordan, Pakistan, Indonesia, Kenya and Rwanda.</li> <li>- Key Interventions:               <ol style="list-style-type: none"> <li>1- Participatory Action Research: involves active engagement of children and young people in addressing mental health issues, emphasizing community involvement to develop potential solutions.</li> <li>2- Practice-focused Training Workshops: enhance participants' skills with psychosocial competencies, focusing on understanding complex trauma's impact on child mental health and planning interventions.</li> <li>3- Service Transformation: framework development aiding organizations in improving mental health service provision by mapping local needs, establishing networks, and filling service gaps.</li> <li>4- Digital Learning: utilizing technology to widen access to mental health resources, offering self-learning, facilitated distance learning, and supervision.</li> <li>5- Partnership and Networking: collaboration with NGOs, academic centres, and health services to maximize resources within communities and institutions.</li> </ol> </li> </ul>
<b>Setting</b>	<ul style="list-style-type: none"> <li>- Implemented in Jordanian and refugee communities where there is scarcity of mental health institutions, high stigma, and cultural insensitivity in treatment programs.</li> </ul>	<ul style="list-style-type: none"> <li>- Targeted populations include vulnerable groups such as children, refugees, internally displaced children, and those in care.</li> </ul>

<b>Challenges</b>	<ul style="list-style-type: none"> <li>- High prevalence of psychological distress contrasts with limited mental health facilities.</li> <li>- Stigma and bias associated with mental healthcare act as barriers to seeking help.</li> <li>- Lack of culturally sensitive treatment programs, professional training, and coordination between services in urban areas.</li> </ul>	<ul style="list-style-type: none"> <li>- Addressing disparate mental health needs in communities.</li> <li>- Coping with limited resources.</li> <li>- Dealing with the complexity of trauma's effects on mental health.</li> </ul>
<b>Results</b>	<ul style="list-style-type: none"> <li>- High satisfaction rates (88.8%) with psychotherapeutic interventions reported.</li> <li>- Positive perceptions of therapy's benefits, with 60% strongly agreeing and 28.8% somewhat agreeing about its positive effects.</li> <li>- Ambivalence remained regarding bias and stigma associated with mental health care.</li> <li>- No significant differences found between Jordanian host community and Syrian refugees in their perceptions of mental health care.</li> </ul>	<ul style="list-style-type: none"> <li>- Improved service delivery and increased mental health awareness.</li> <li>- Establishment of effective interdisciplinary networks.</li> <li>- Specific numeric results on childhood mental health disorders, stress, post-traumatic stress disorder, and recovery rates were mentioned in the paper but not directly linked to the interventions described.</li> <li>- The paper didn't provide specific success rates attributed to the interventions.</li> </ul>

Table 7: Intervention in Lebanon<sup>101</sup>

<b>Intervention</b>	<b>Knowledge Translation (KT) Tools</b>
<b>Intervention Description</b>	<ul style="list-style-type: none"> <li>- Interventions included the development of a policy brief, semi-structured interviews, a national policy dialogue, evaluation of the brief and dialogue, and a post-dialogue survey.</li> <li>- Aimed to address inadequate access to mental health services in Primary Healthcare (PHC) centres.</li> <li>- Bridged the gap between academic knowledge and real-life policy application.</li> <li>- Engaged stakeholders at various levels, focusing on policymakers, researchers, and health workers.</li> <li>- Utilized the Knowledge to Policy platform as a crucial link between researchers and policymakers.</li> </ul>
<b>Setting</b>	<ul style="list-style-type: none"> <li>- Lebanon, where one in four adults suffers from mental illness, yet access to mental health services in PHC settings is limited.</li> </ul>
<b>Challenges</b>	<ul style="list-style-type: none"> <li>- Faced resistance from specialists fearing non-specialist staff incompetency and opposition from PHC managers.</li> <li>- Overcame challenges through early stakeholder engagement, comprehensive training, and continuous dialogue.</li> </ul>
<b>Results</b>	<ul style="list-style-type: none"> <li>- Validated evidence supporting integration of mental health into PHC services.</li> <li>- Establishment of a national task force and inclusion of psychiatric medicines in the national essential drug list.</li> <li>- Increased training for PHC staff and stakeholders conducting workshops post-dialogue to discuss implementation.</li> <li>- Raised awareness and demand for KT tools.</li> <li>- Demonstrated promise for KT tools in developing evidence-informed health programs and guiding evidence-informed policymaking in Lebanon.</li> </ul>



## **CHAPTER FOUR: DISCUSSION, STRENGTHS AND LIMITATIONS**

The study aims to analyse the social determinants of mental health in Jordan and their impact on mental health prevention, detection, and management. This analysis seeks to provide recommendations to government and policymakers for interventions and healthcare strategies tailored to meet the specific needs of the Jordanian population.

This section focuses on the subcategories of determinants and their inter-related influence, making the literature further detailed. In addition, identified gaps in services and interventions will be addressed.

### **4.1.1 Individual Determinants Influencing Mental Health**

As presented in the results, gender roles and stereotypes significantly influence mental well-being. In Jordan, societal expectations place considerable pressure on married males over 40, linking them to heightened levels of depression and anxiety. Contrastingly, in Lebanon, the burden of caregiving often falls on females, leading to increased stress levels. Gender-specific experiences having distinct effects on overall mental wellbeing<sup>102 103</sup>. This is further complicated with the socioeconomic status.

From the interventions presented in the results, The Knowledge Translation (KT) tools intervention showcased potential to challenge traditional gender roles by advocating for equality in domestic duties and addressing societal expectations related to male breadwinning. By engaging policymakers, these initiatives could promote fair distribution of family responsibilities, driving awareness and policy changes.

Developing gender-sensitive mental health programs remains crucial, empowering both women and providing stress relief avenues for men. Tailored initiatives addressing distinct gender-specific mental health needs are vital. Policies targeting income gaps and offering financial aid can significantly influence mental health outcomes, with programs providing guidance, job opportunities, and mental health support effectively reducing stress levels and lowering depression risks.

### **4.1.2 Family Determinants Influencing Mental Health**

The results confirmed there was a substantial impact of family structure on mental health outcomes, particularly among children facing abandonment or separation from immediate family members in Jordan. The strain on caregivers due to these circumstances necessitates support mechanisms and interventions to alleviate their mental health burdens.

The KT tools show potential in influencing policy changes, but their impact on addressing familial mental health challenges may be limited. Implementation hurdles like societal norms and traditional expectations could hinder immediate shifts in caring responsibilities or family obligations. The interventions might not fully address the complexities of family-related mental health challenges faced by children and caregivers in Jordan, requiring more targeted strategies.

Fair distribution of family responsibilities, social and financial assistance for caregivers can help alleviate mental health challenges. Counselling services tailored to caregivers' needs, along with supportive programs should be offered by institutions. Additionally, policies addressing the difficulties faced by caregivers, including economic aid and psychological support, are essential.

#### **4.1.3 Community Determinants Influencing Mental Health**

The results demonstrated earlier found that Jordanians faced psychosocial distress partly due to weak social support systems and a societal culture emphasizing emotional restraint, particularly in males. The absence of a supportive environment exacerbated mental health challenges. Similar observations were noted among displaced communities in neighbouring countries, highlighting the crucial role of supportive social circles in alleviating mental health burdens<sup>102 104</sup>.

Moreover, as shown in the results the lack of mental health awareness and education in Jordan contributes significantly to obscuring the depth of mental health issues. Similar concerns and challenges with mental health awareness were seen in India and Lebanon<sup>105</sup>.

The AICS Mental Health Initiative in Jordan from the results focused on Practice-focused Training Workshops and Digital Learning to enhance participants' skills and widen access to mental health resources, contributing to improved mental health awareness. Education and knowledge dissemination through digital platforms can help mitigate the lack of mental health awareness and education observed in the country.

It is crucial to encourage discussions about health in families and communities, promoting the expression of emotions and seeking support. Integrating health education into school curricula and developing programs tailored to the Jordanian context can enhance awareness and cultivate positive attitudes towards seeking assistance for mental health issues.

#### **4.1.4 Structural Determinants Influencing Mental Health**

As the findings showed, the COVID-19 pandemic catalysed moderate to severe depression, stress, and anxiety among Jordanians. Similar observations in other countries during global crises highlighted the vulnerability of low-middle-income nations like Jordan, especially due to factors like unemployment and increased costs of essentials. Other studies showed unpreparedness and the lack of early planning by decision-makers amplified the strain on mental health during the complete lockdown <sup>106</sup> Jaspal et al., 2020).

Furthermore, as stated in the result the stigma surrounding mental health problems continues to significantly impact mental health treatment in Jordan. This stigma hinders treatment adherence and timely therapeutic interventions, delaying recovery especially when linked to religion. However, within the refugee community, trauma and adversity emerged as main determinant influencing mental health outcomes. This was more prominent within refugees rather than Jordanian due to ongoing war, conflict and forceful displacement.

The psychotherapy intervention in Jordan mentioned in the results effectively addresses mental health challenges and stigma by offering services in both Jordanian and refugee communities. It tailors mental health care to local contexts, leading to high satisfaction rates (88.8%) and positive perceptions of therapy's benefits (60% strongly agreeing).

Governments should plan their response by educating people about mental health, preparing for crises, and launching campaigns to reduce stigma. Comprehensive awareness initiatives can change attitudes toward mental health, while educational projects and community engagement foster understanding and acceptance of these concerns. Community clinics must provide non-judgmental mental health services while actively discouraging discrimination.

Within refugee camps, mental health support is offered on a greater scale than to those living in the host community. One possible reason for this could be lack of registration, as well as being perceived as a burden on Jordan's healthcare system.

## **4.2 Strengths**

This literature review included recent research and studies as close as October 2023. Therefore, the data presented contained comprehensive and updated information about Jordan's mental health situation. The findings highlight the complex interrelations among individual, family, community, and structural determinants in shaping mental health outcomes in Jordan. Furthermore, this thesis revealed a huge gap in the present studies that give insight into several determinants which in turn made it difficult to develop interventions that address mental health needs and problems.

The conceptual framework utilized in the thesis is The Public Mental Health Conceptual Framework. It includes a variety of determinates which was helpful in guiding the research. It also aided in revealing how different determinant categories complement each other and can't be addressed separately in order to come up with good findings.

## **4.3 Limitations**

A more comprehensive adaptation, accounting for cultural nuances and regional differences, could improve the framework's applicability to other contexts. A thorough evaluation of the framework indicates its potential adaptability for future research by incorporating additional contextual variables pertinent to countries beyond the UK, thus making it suitable for broader studies. Certain determinants that were not applicable to the Jordanian context—such as the North-South divide—were therefore excluded from the review.

Several constraints exist, such as the necessity for more detailed data breakdown and potential biases within the sampled population of reviewed studies, affecting the applicability of results. Many of Jordan's governorates were not included in any studies. Furthermore, there was a greater emphasis on refugees living in camps rather than those integrated into host communities due to easier access to information for registered refugees in camps compared to those unregistered in host communities.

## **CHAPTER FIVE: CONCLUSION AND RECOMMENDATIONS**

### **5.1 Conclusions**

The review highlights the interconnectedness of determinants affecting mental health among Jordanian citizens. Structural, community, family, and individual factors significantly impact mental well-being, emphasizing the need for comprehensive approaches. Furthermore, this thesis revealed a huge gap in the present studies that give insight into several determinants which in turn made it difficult to develop interventions that address mental health needs and problems. Determinants like genetic factors, urban/rural differences and political structure, requires further investigation regarding their influence on mental health. Stigma and discrimination, gender and mental health awareness emerge as key barriers preventing individuals from seeking mental health care, necessitating community-based interventions to break this cycle.

While Jordan has initiated mental health initiatives, challenges persist in their implementation, potentially impacting the burden on the primary healthcare system. Financial barriers, such as lack of insurance coverage for mental health services, limit accessibility for a significant portion of the population.

To address these issues, recommendations should focus on enhancing mental health awareness, implementing effective initiatives, and ensuring accessibility to mental health services. Strategies aimed at tackling stigma, expanding insurance coverage for mental health care, and improving the implementation of existing initiatives are crucial for better mental health outcomes in Jordan.

## **5.2 Recommendations**

Recommendations are categorized according to the stakeholder and/or actors who shall take the responsibility and initiative in implementing the suggested solutions. It should be noted that interventions should consider suitability for Jordanians vs refugees within the host the community.

### **5.2.1 Ministry of Health and Legislation**

- Ministry of Health could list all available and previously successful initiatives that were implemented in a low-middle-income country so that Jordanian healthcare providers and policymakers learn from best practices and implement what is applicable to the Jordanian context versus refugees within the host community.
- Ministry of Health could promote community engagement and participation in the planned mental health initiative to move away from the stigma theme.
- Creation of a local committee in each governorate in Jordan to make sure inclusiveness and representation when implementing these initiatives and include them in stakeholder and governmental meetings.
- Ministry of Health could expand mental health services in rural locations to encourage medical both people and health care providers when deployed to work in remote areas.
- Annual reports regarding the initiatives, outcomes and shortcomings should be disseminated for the knowledge of the public, researchers, and healthcare providers.
- Formulating laws that protect mental health patients and condemn any abuse targeted specifically towards them.

### **5.2.2 United Nations Agencies and NGOs**

In close collaboration and coordination with the Jordanian government:

- Distribute the services to include both the host community and refugees rather than have them limited to refugees as this creates negative feelings being harboured by the host community due to unequal treatment.
- Ask for funding and donations for these services, highlighting that Jordan is a low-middle-income country with limited resources.

### **5.2.3 Media**

- Strengthening Public Awareness: This involves conducting awareness campaigns to fight stigma, stop inter-personal violence, and encourage people to seek mental health care.
- Media can shed light on the journey of a person with a mental health disorder and how people can support themselves if they know someone with mental health issues.

### **5.2.4 Academia**

An existing gap in research was identified and disclosed in the conclusion section. However, recommendations can be given to advance research in the mental health area with a focus on the following:

- Overlooked determinants and governorates should be studied further to establish the correlation and influence on mental health of Jordanians in Jordan.
- The prevalence of mental health issues and the situation in rural areas in Jordan.

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