A REVIEW OF MENTAL HEALTH ISSUES OF SYRIAN CHILDREN LIVING IN TURKEY, LEBANON, AND JORDAN: PSYCHOSOCIAL RISK AND PROTECTIVE FACTORS

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A thesis presented in partial fulfilment of the requirements for completion of the Master of Science degree in International Health

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Declaration:

Where other people's work has been used (from either a printed source, internet or any other source), this has been carefully acknowledged and referenced in accordance with departmental requirements.

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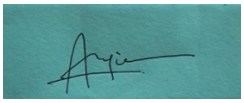
Signature 

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LIST OF ABBREVIATIONS

ISIS	The Islamic State of Iraq and Syria
LMICs	Low and Middle-Income Countries
MAOA	Monoamine Oxidase A Gene
MAOA-H	MAOA Variant with High Transcriptional Activity
MAOA-L	MAOA Variant with Low Transcriptional Activity
NGOs	Non-Governmental Organisations
PTSD	Post-Traumatic Stress Disorder
UN	United Nations
UNICEF	The United Nations Children's Fund

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ABSTRACT

A Review of Mental Health Issues of Syrian Children Living in Turkey, Lebanon, and Jordan: Psychosocial Risk and Protective Factors

Background and Problem Statement

The nearly 12 years of conflict in Syria has created the world's largest wave of displacement in modern history, which is, as of late 2021, causing almost 2.7 million children to be forcibly displaced in Turkey, Lebanon, and Jordan. Refugee children were at high risk of developing mental health issues as they were subject to several psychosocial risk factors, and it is known that mental health issues were extremely high in the Syrian refugee children population living in Turkey, Lebanon, and Jordan, compared to what would be expected from a normal population in those countries.

Study Aim

This study aimed to analyse the psychosocial risk and protective factors contributing to the mental health issues in Syrian refugee children living in Turkey, Lebanon, and Jordan, in order to assist these countries of asylum and relevant Non-Governmental Organisations (NGOs) for best practices in addressing the mental health issues in these children.

Methodology

A desktop review has been conducted. The Bronfenbrenner's bioecological model of human development was utilised to analyse the psychosocial risk and protective factors found from the literature review.

Results and Conclusion

Mental health issues were extremely high in the Syrian refugee children population living in Turkey, Lebanon, and Jordan, amongst the most frequent were depression, anxiety, and post-traumatic stress disorder. In addition, for most of these children, more than one of mental health issues were observed, suggesting that the Syrian refugee children's case in Turkey, Lebanon, and Jordan was highly contextual.

It is also known that, each of the psychosocial factors that are found in this study occurred at every ecological level. And, all of them, are interrelated with each other; some of them even interdependent on each other. Reflecting the complexity of the adaptation challenges that were faced by these children, which could make them more vulnerable to get mental health issues.

Key words

Mental health issues, Children, Syrian, Refugee, Turkey, Lebanon, and Jordan

Word count: 13.200

INTRODUCTION

It was the desire to help others that ultimately drove my decision to become a doctor. This sense of calling was reinforced early in my last year of high school. At that time my family had been undergoing serious financial hardship for over 6 years, thus I took on several part-time jobs in order to be able to continue my study throughout my school years. Nevertheless, not only because of my ability to earn money but also help from others that was made me able to continue my study during those hard times, thus it inspired me to choose a profession with a focus on helping others regardless of circumstances as one of my life goals. In the end, I chose to become a doctor, as being a doctor provides innumerable opportunities and the immense privilege to help better the lives of patients regardless of circumstances. My passion to help was later reinforced as a volunteer doctor who served people affected by conflict, armed violence, and disasters. Caring for those most in need and most neglected during their most vulnerable times was among the most humbling yet rewarding experiences in my life.

As I worked in the field of humanitarian crises, I realised that (at least in the developing countries where I've worked in) there were many instances where the victims of the humanitarian crises were unable to achieve their full health potential despite high-quality work of the health workers in the field. And I also realised that one of the main causes of it was because of the fact that health is, indeed, affected by an array of factors that operate on multiple levels; and that addressing these much broader set of factors are, especially, essential in the sensitive and insecure context in order to create more sustainable programmes and a healthier and safer environment for these vulnerable people.

Furthermore, while working as a doctor and a healthcare humanist in the field of humanitarian crises, I became more interest in the topic of refugee children's mental health, as children are one of the most vulnerable populations within that underprivileged member of community; and as I found that there was still limited attention paid to this particular issue by the related stakeholders in the field. And as I dug deeper into the topic of refugee children's mental health and tried to relate the findings with my work experience, I found that, despite of the fact that these children may experience the cumulative stress of forced migration and or the compounding stressors of childhood with the extraordinary and traumatic experiences of displacement which put them at increased risk of getting psychological distress, many of them appeared to be resilient to adversity and could do well in life. Later on, I've narrowed down the aforementioned topic of interest of mine to the mental health issue in Syrian refugee children, as I found that the nearly 12 years of conflict in Syria has caused almost 2.7 million children forcibly displaced in the Syria's neighbouring countries, as of late 2021, making it the humanitarian emergencies of the largest magnitude and duration.[1]

All in all, given all of the aforementioned facts and as an attempt to gain a more dynamic insight into what factors made the refugee children more vulnerable to get mental health issue and what enabled them to thrive, in a way that will enable us to reflect the complexity of the interaction of heterogeneous contextual and cultural factors of it, I decided to conduct this literature review of the psychosocial risk and protective factors that can affect the mental health issue of Syrian refugee children living in Turkey, Lebanon, and Jordan. The findings of this literature review will encourage recommendations for appropriate and cost-

effective preventive interventions to policy makers, related non-governmental organisations, and other related stakeholders in order to improve the mental health status of the Syrian refugee children living in the neighbouring countries, as all of these countries are part of the low and middle-income countries.

This literature review is divided into 5 chapters:

- Chapter one gives background information about the contextual factors which exacerbate conflicts in Syria, including its effect on Syrian refugee children's mental health status; the description and explanation of children's mental health and psychological well-being; and the refugee children and resilience, including risk and protective factors in the resilience framework of refugee children. The latter two were written as an attempt to make the writer and reader speak the same language to describe those particular matters.
- Chapter two includes the problem statement, justification, research questions, and research objectives of this study.
- Chapter three presents the methodology and analytical framework that is used in this study.
- Chapter four presents the results/findings from the literature review of literature on mental health issue of the Syrian refugee children living in Turkey, Lebanon, and Jordan; and risk and protective factors influencing it.
- Chapter five discusses the findings in the available literature analyses.
- Chapter six presents the conclusion and recommendations for policy makers, related non-governmental organisations, and other related stakeholders in order to improve the mental health status of the Syrian refugee children living in Turkey, Lebanon, and Jordan, based on the findings and discussion.

Chapter One:
Background

1.1 The Syrian Conflict in Context

The conflict in Syria, now in its twelfth year, began with a brutal military crackdown on the anti-government protesters in March 2011 and has subsequently displaced nearly 12 million people[2], in which about half of it is represented by children under the age of 18, with approximately 40 percent were under the age of 12.[3] In the late 2021, the United Nations Children's Fund (UNICEF) estimated that the Syrian refugee crisis remains the largest displacement crisis in the world, with no end in sight[4], making it almost unprecedented in terms of the magnitude of humanitarian and public health catastrophe.

Given the above-mentioned magnitude of the crisis and the fact that war and conflict have devastating effects on people, especially on vulnerable refugee children who witnessed acts of violence and or being subjected to war and conflicts atrocities[4], we see that understanding the Syrian conflict's historical roots can help put the war and conflict; and the experiences of these Syrian refugee children in perspective.

Syria is home to various religious sects and cultures and, historically, these subcultures coexisted peacefully, however the presence of French colonialism with its divide-and-rule tactics magnified tensions between ethnic and religious groups.[5,6] These tensions were exacerbated further when French rule ended and political infighting to control the newly independent Syria happened.[5,6] This several years of political infighting seemed to be ended in 1971 when Hafez al-Assad took power and was elected for a seven-year term.[5,6] However, later on, he shifted his presidency into a dictatorship and remained in power until his death in 2000, when he was succeeded by his son, Bashar al-Assad.[5,6.]

In terms of health system, even though the unstable regional political context had been happening for quite some times in Syria before the conflict in 2011, the health system in Syria in the past three decades before the conflict was characterised by the improvement of its capacity, as well as rapidly improving national health indicators such as a falling infant mortality rate and an increased child immunisation rate.[7] In this period, Syria was also known to have similar levels of physical, mental, and social well-being compared to many other countries in the world[8]; and reported having a universal enrolment in primary schools and near-universal enrolment in secondary schools.[9]

However, in the decade following Bashar al-Assad regime, things have started to change. In this period, Syria underwent an accelerated implementation of neoliberal policies, which was characterised mainly by extensive privatisation, liberalisation, and reduction of subsidies on many products and services for the public; and an increase in informal labour, which more than half of it constituted by workers under the age of 30.[10] The latter fact was a signal that there was a decreasing availability of economic opportunities for Syrian youth during the liberalisation period.[10] Thus, researchers assumed that, behind the appearance of decent macroeconomic performance, the Bashar Al-Assad regime was marked by the widespread economic marginalisation and intense socio-economic grievance, which led to the more severe condition of the unstable regional political context in Syria.[11] And, in the end, it also led to the anti-government protests, which began in Daraa in mid-2011 and soon spread across the country, exacerbated further by the government's use of force against

demonstrators.[12] This anti-government movement resulting in the flee of almost 5,000 Syrian civilians to Lebanon to escape the growing violence, marking the start of the Syrian refugee crisis.[12] Subsequently, more than 10,000 Syrian refugees fled into Turkey after the crackdown movement on the anti-government activists by Al-Assad's army.[12]

Later on, the conflict in Syria was escalated with the presence of numerous extremist groups such as the Islamic State of Iraq and Syria (ISIS), seeking to control the region; and foreign countries which provided political, military, and operational support to parties involved in the ongoing conflict in Syria (e.g., United States, Russia, China, and other Arab countries), resulting in civilians being caught in the intensified fighting.[12] And, as violence escalated, in late 2015, more than 4 million Syrians were registered as refugees abroad and at least 7.6 million were displaced inside the country.[12] Unfortunately, with little prospect of a ceasefire or political solution in Syria, these numbers are expected to increase continuously.[12]

All in all, as the civil war rages on, the Syrian children continue to suffer greatly, especially in terms of being afflicted by mental health issues, as it is known that the suffering and trauma experienced before fleeing and the poor living condition within the refugee camps put these children at high risk for mental health issues.[13] Congruent with the aforementioned study is a finding stated that the war-affected Syrian children suffered from significantly high rates of mental health issues.[12] Nevertheless, a study found that, despite of the fact that the refugee children may at increased risk of getting mental health issues, many of them appeared to be resilient to adversity and could do well in life.[14]

1.2 Mental Health, Psychological Well-being, and Mental Health Issues of Children

Practitioners used different language and explanations to describe the mental health and psychological well-being of children, which, in turn, could led to confusion in parents and professionals themselves.[15] A study in 2004 stated that there were a wide variety of terms used to describe children's mental health and psychological well-being: emotional literacy, emotional intelligence, emotional health and well-being, psychological well-being and distress, emotional and behavioural difficulties, mental health problems, health disorders, etc.[15] It is also known that the predominant paradigm of the professional discipline, from which they originate, played an essential part in the term chosen by these practitioners.[15] Thus, in order to fulfil the aim of this literature review, it is necessary for us to define what mental health and psychological well-being mean in children.

An internationally accepted definition of mental health is:

> "The capacity of thought, emotion, and behaviour that enables every individual to realise their own potential in relation to their developmental stage, to cope with the normal stresses of life, to study or work productively and fruitfully, and to contribute to their community." [16]

Mental health is also framed in terms of a state of well-being by the World Health Organization[WHO2004]. And, as, well-being itself is defined as one's perception of positive evaluation towards life satisfaction, thus mental health issues are related with a degree of one's mental well-being. [17]

However, some studies did not regard the concept of mental health and mental health issues as a separate entity. For instance, a study done by Dogra, Parkin, Gale, and Fake suggested that the concept of mental health should be considered to be on a continuum

between mental/psychological well-being, at one end, and mental issues, on the other: ranges from typical human emotional experience to extreme psychological distress and mental ill-health (See picture 1).[18] Furthermore, this study also recognised the reciprocal interaction between a child and their social and culture context in determining their mental health needs.[18]

Figure 1. The continuum of mental health.[18]

Congruent with the above-mentioned study is another study done by McDonald and O'Hara, which found that a person's mental health is the consequence of the interaction between the promoting and demoting elements (See table 1).[19] This study also stated that the goal of dividing these ten elements into two categories, promoting and demoting, was not to provide a universal and culture-free definition of mental health; instead, it was made to build a framework that will make people from various cultures and disciplines able to add their own awareness and understanding into it.[19] Furthermore, this study suggested that 'mental issues' could be prevented, in the beginning stage, by decreasing organic factors, stress, and exploitation; and, in the later stage, by increasing coping skills, self-esteem, and social support (see table 1).[19]

Table 1. Elements of Mental Health[19]

Promoting Elements	Demoting Elements
Environmental Quality: -good housing -good public transport, -aesthetically pleasing building and landscaping -proximity to nature	Environmental Deprivation: - poor housing - lack of safe places to play - threats of violence - pollution
Self Esteem: an underlying belief of one's value and significance as a human being who has their own right, not merely as a result of their activity in the world	Emotional Abuse: an act of undermining and destroying their own or other people's underlying belief of one's value and significance as a human being who has their own right. This act can be done either directly (mental torment or physical/sexual abuse) or indirectly (systematic and sustained criticism, denial of uniqueness and significance, devaluation of values, or sabotaging/undermining competencies and success)
Emotional Processing: recognition and respect for their own and other people's emotions	Emotional Negligence: personal or institutional neglect in helping themselves/other people to develop and express emotional life
Self-Management Skills: coping skills in a broad sense, which is characterised as being proactive and involves an internal locus of control	Stress, which is different for each person and context related
Social Participation: active involvement of individuals and groups in a range of mutually productive and interdependent relationships that contributes to a social richness in one's lives	Social Exclusion, based on gender, race, class or other differentials (e.g., power exploitation)

This framework has two main characteristics:

- It has the capacity to enable people creating their own dynamic definition of mental health that acknowledges the three different ecological levels of influence in mental health: the micro level (individual), the meso level (organisational and institutional), and the macro level (regional, national, and international).[19]
- It considered the interdependence between systems and structures at the different ecological levels of influence; and the interdependence and cumulative influences between the ten elements of mental health. [19]

1.3 Refugee Children and Resilience

Refugee children might experience what is termed as the 'cumulative stress' of forced migration or the compounding stressors of childhood with the extraordinary and traumatic

experiences of displacement.[14] Consequently, these children were at a greater risk for psychological distress than non-refugee children.[14]

In line with the above-mentioned study, it is known that children might develop internalised symptoms such as anxiety, depression, or post-traumatic stress disorder (PTSD); or develop externalised symptoms such as substance use, aggression, or delinquency, as a response to life stressors (e.g., exposure to violence or a death in the family). These symptoms could be exacerbated by pre- and post-migration experiences that the refugee children and their family endured.[20]

Nevertheless, a study found that, despite the traumatic experiences that the refugee children had, many of them appeared to be resilient to adversity and could do well in life.[14] A study also found that many refugee children had qualities of resilience that developed because of their experiences in war.[21]

By discovering what enables some refugee children to thrive, and then recognising and using these strengths, the capacity of educators and others who work with these children to design effective interventions will be increased.[22] Unfortunately, to date, much of the research still focused on the prevalence of poor outcomes and psychopathology in the refugee children population rather than their resiliency.[22]

The concept of resilience in children itself had been used to refer to the qualities that help vulnerable children deal with adversity, which might help them cope in the face of immense pain and disadvantage.[23] The following is a more comprehensive definition of 'resilience' by Masten et al.:

> "Resilience refers to the process of, capacity for, or outcome of successful adaptation despite challenging or threatening circumstances. Psychological resilience is concerned with behavioural adaptation, usually defined in terms of internal states of well-being or effective functioning in the environment or both."[24]

In the above-mentioned definition, resilience is conceptualised in three ways, which are process, capacity, and outcome: it is described as the adaptation process in the presence of significant challenges (risk factors and stressors), where certain capacities (personal and environmental factors) are facilitating one's resilience/well-being state.[24]

The resilience framework in children had its roots in the risk framework, as it is concerned with children who have faced significant threats to their development and their ability to remain competitive despite these adverse conditions.[25] Nevertheless, children's resilience framework focuses more on the protective factors (e.g., dispositional attributes, biological predispositions, and environmental influences).[26] But, still, in order to gain more insight on the resilience framework of refugee children, one must understand the risk and protective factors that relate to the mental health of these children.

In terms of the risk and protective factors within the resilience framework of refugee children's mental health, lately, the studies have moved away from defining them in broad terms to defining the individual and situational mechanisms involved in the processes that generate risk or protection.[27] The researchers saw the need to move toward a more dynamic understanding of the aforementioned processes for refugee children, as they argued that the wide variations of mental health issues reported in these particular population could reflect the complexity of the interaction of heterogeneous cultural and contextual factors in it.[27]

Thus, as a way to better analyse the development of resilience in children, Luthar et al. have summarised three sets of the related factors that can be mapped on to a social-ecological model of risk and protection for refugee children (e.g., the one from

Bronfenbrenner that is used in this literature review).[28] Here are the three sets of factors from Luthar et al.: attributes of the individual child, attributes of a child's family, and characteristics of the larger social environment.[28]

1.3.1 Risk Factors in the Resilience Framework of Refugee Children

As an attempt to conceptualise the risk factors that play an essential role in the development of a psychological disturbance in refugee children, in line with a study done by Luthar et al., Fazel and Stein tried to categorise these factors based on whether they are attributed to the individual child, the child's parents, or the larger social environment (see table 2).[29]

Table 2. Risk factors for mental health problems in refugee children[29]

Parental Factors	Children Factors	Environmental Factors
Maternal depression	Number of dramatic events - either witnessed or experienced	Number of transitions
Torture	Expressive language difficulties	Poverty
Death of separation from parents	PTSD leading to long term vulnerability	Cultural isolation
Direct observation of the helplessness of parents	Physical health problems from trauma or malnutrition	Period of time in a refugee camp
Unemployment of parents	Older age	Time in the host country

1.3.2 Protective Factors in the Resilience Framework of Refugee Children: Characteristic of Resilient Children

A study indicated that if protection of children's basic adaptational systems took place, most children would continue to develop well even if they experienced adversity.[30] Congruent with this finding, another study based on a review of resilience literature and the writers' observations in their clinical practice, found that there were six categories of protective factors that, if available, would serve as buffers to risk situations:

- a proactive orientation;
- self-regulatory abilities;
- proactive parenting;
- connections and attachments to family and friends;
- the influence of effective schools;
- and positive community support.[31]

The latter study also found that self-efficacy or self-worth were the pivotal characteristic of a resilient children.[31]

Chapter Two:
Problem Statement, Justification, Research Questions and Research Objectives

2.1 Problem Statement

As of late 2021, the United Nations (UN) reported that almost 2.7 million children were forcibly displaced to Syria's neighbouring countries due to the ongoing war in Syria[1]; nearly 11,000 children had crossed the Syrian border unaccompanied[32]; and more than 140,000 were born as refugees.[33] However, while neighbouring countries of asylum, wealthy nations, and international organisations had donated aid to address the Syrian refugee crises, the immense magnitude of the problem had resulted in the underfunding of both refugee camps and resettlement programmes, which, in turn, led to the poor living condition of the refugees in the camps.[34] This phenomenon especially happened at the camps located in the neighbouring countries, which included Turkey, Lebanon, and Jordan, as all of them are part of the low and middle-income countries (LMICs).[34]

The suffering and trauma experienced by the Syrian refugee children before fleeing and the poor living condition within the refugee camps put these children at high risk for mental health issues.[13] Congruent with the aforementioned study, another study found that the war-affected Syrian children suffered from significantly high rates of mental health issues[12], amongst the most frequent of which were depression, anxiety, and PTSD.[35,36] In the context of the refugees living in the neighbouring countries, almost 50% of the Syrian refugee children in Turkey showed clinically significant levels of anxiety and withdrawal[37]; in Lebanon and Jordan, 45.6% of Syrian refugee children developed PTSD[38]; and 53% of Syrian refugee children in Jordan also experienced high insecurity levels, and 82.5% of them were exposed to more than four-lifetime traumas.[39] Furthermore, Syrian refugee children are also known to experience emotional and behavioural regression, including high anxiety levels, bedwetting, nightmares, and panic attacks.[36,40,41]

Unfortunately, while it is known that children who suffer from depression or PTSD, or exhibit problematic behaviours must find ways to cope with their symptoms, the poor living condition in the refugee camps made the Syrian refugee children having limited or no access at all to any support to address such issues. It is also known that these issues were simply exacerbated when the caretakers were missing from the lives of these children, either because they had died or been left behind.[12]

Moreover, the poor living condition in the refugee camps and other settlements also led to the poor access to education for these Syrian refugee children, which contributed to the more complex mental health issues and dangers, as children who were not formally educated were more likely to feel marginalised and hopeless, making them vulnerable targets for radicalisation. For instance, ISIS is believed to be actively recruiting Syrian youth in Lebanon, taking advantage of their anger and disillusionment.[42]

The above-mentioned mental health issues yielded a high cost for society[43]: individuals with mental health issues required more resources in school and during the transition to work; and, as adults, they were more likely to leave jobs and stay unemployed.[42] Thus,

persisting mental health issues could limit refugees' educational attainment and employability, which, in turn, hampering Syria's recovery when the war finally ends and some refugees presumably will be able to return home.

2.2 Justification

A study has found considerable evidence that refugee children were at high risk of developing mental health issues as they were subject to several psychosocial risk factors.[44] This study is in line with the result of other studies which have stated that the burden of mental health issues in Syrian refugee children living in the neighbouring countries, including Turkey, Lebanon, and Jordan, was high.[37,38,39] On the other hand, it is also known that several protective factors were associated with the resilience developmental in refugee children.[45] The information on the latter issue is important to inform the design of more appropriate and cost-effective preventive interventions in order to improve the mental health status of the Syrian refugee children living in the neighbouring countries, as most of these countries are part of the LMICs.

Nonetheless, we did not find a structured analysis of mental health issues and associated psychosocial risk and protective factors in Syrian refugee children in a single research paper. Thus, we see a need for a comprehensive analysis of the effect of armed conflict on the mental health of Syrian refugee children living in Turkey, Lebanon, and Jordan, as well as the psychosocial risk and protective factors contributing to it.

2.3 Research Questions

1. What effect does armed conflict have on the mental health of the Syrian children living in Turkey, Lebanon, and Jordan?
2. What psychosocial risk factors influence the mental health of the armed conflict-exposed Syrian children living in Turkey, Lebanon, and Jordan?
3. What psychosocial protective factors influence the mental health of the armed conflict-exposed Syrian children living in Turkey, Lebanon, and Jordan?
4. How can the findings on the psychosocial factors that influence the mental health of the armed conflict-exposed Syrian children improving the design and implementation of the preventive mental health interventions that have been in place in Turkey, Lebanon, and Jordan?

2.4 Research Objectives

2.4.1 General Objective

To study the psychosocial risk and protective factors contributing to the mental health issues in Syrian refugee children living in Turkey, Lebanon, and Jordan, in order to assist these countries of asylum and relevant Non-Governmental Organisations (NGOs) for best practices in addressing the mental health issues in these children.

2.4.2 Specific Objectives

1. To explore the mental health issues that are related to the exposure to armed conflicts in the Syrian children living in Turkey, Lebanon, and Jordan.

2. To identify the psychosocial risk factors that influence the mental health issues that are related to the exposure to armed conflicts in the Syrian children living in Turkey, Lebanon, Jordan.
3. To identify the psychosocial protective factors that influence the mental health issues that are related to the exposure to armed conflicts in the Syrian children living in Turkey, Lebanon, Jordan.
4. To disseminate findings and recommendations to the countries of asylum and relevant NGOs for best practices in addressing the mental health issues of the Syrian children living in Turkey, Lebanon, Jordan.

Chapter Three:
Methodology

A literature review using PubMed and ScienceDirect as the databases was performed. The keywords used were "mental health issues", "Children", "Syrian", "Refugee", "Turkey", "Lebanon", and "Jordan"; combined with the factors that were to be explored (see table 1). Using the snowballing technique, several review articles and organisational reports were added. Additionally, because not all psychosocial factors were found in the context of Syrian children living in Turkey, Lebanon, and Jordan, a search on specific psychosocial factors in a broader context was done when needed.

Table 3. Search Syntax and Websites Used

Database	Search Terms
Pubmed	("mental health" OR "mental health issues" OR "mental health problems") AND ("syrian children" OR "syrian refugee children") AND ("turkey") AND ("lebanon") AND ("jordan")
ScienceDirect	("mental health" OR "mental health issues" OR "mental health problems") AND ("syrian children" OR "syrian refugee children") AND ("turkey") AND ("lebanon") AND ("jordan") AND (social groups) OR (larger societal context) OR (culture) OR (belief) OR (ideology)

For the initial inclusion, literature focused on the mental health issues and psychosocial risk and protective factors in Syrian children living in Turkey, Lebanon, and Jordan were screened. As for the exclusion criterion, documents published before the year 2000 was applied for further abridgement of the search. The results were analysed using an integrative contextual model for conceptualising the psychosocial risk and protective factors made by Bronfenbrenner (see figure 2).[46]

Bronfenbrenner's bioecological model of human development proposed that environmental forces interact with physiological attributes to shape psychological outcomes in an individual: it brought together the developmental and ecological perspectives into one framework.[47] This model also underlined the importance of understanding that the relationship between mental health issues and its context is bidirectional; and understanding the context of an individual as a dynamic system that can change over time, which, in turn viewing any mental health diagnosis as a current reflection of a psychological imbalance, a mirror of one's lifelong dynamic struggle between sources of resilience and damage.[48]

Bronfenbrenner's model expanded the role of the environmental context on developmental processes and outcomes by distinguishing between interacting environmental levels, from proximal to distal (see Figure 2):

- First, being the most proximal, the microsystem consisted of face-to-face interactions of persons with the developing individual (the proximal processes); and the individual characteristics (the person) that referred to biopsychological factors which interacted with environmental attributes over time to either hamper on or support development.[48] The proximal processes consisted of daily

and immediately available tasks that directly shaped development[48], for instances, peer play, problem solving, athletic activities, feeding, etc.[49] Thus, a child's home, school, and peer group were known to be important microsystems.[48]

- Second, the mesosystem consisted of linkages that occurred between two or more settings that included the developing person: it is a system of intermingling microsystems.[48] For instance, conflict in the value systems/language/culture/belief between school and home that interacted to shape a child's moral development.[48]
- Third, the exosystem consisted of linkages that occurred between two or more settings, at least one of which did not typically contain the developing person.[48] Events in this system is known to influence processes within the child's immediate setting but did not actually include the child. For example, the environment of parent's workplace, which has the potential to create and build up stress in a parent, which, in turn, might cause the transfer of parent's mental health issues that correlated with stress (e.g., anxiety, depression, pressure) to the home environment, impacting processes in the meso- and microsystem. Other example of environment in this level might include the education system, economic system, social support network, transportation system, local government, other societal institutions, etc.[48,49]
- Finally, the most distal of Bronfenbrenner's bioecological levels is the macrosystem, which is commonly known as a society's general or mainstream culture. Example of environment in this level might include belief system, general lifestyles, patterns of social interchange, etc.[48]

All in all, the core strength of this model is that it challenges the mental health professional to identify and evaluate the risk and the protective factors in both the developmental and the socio-environmental contexts of an individual; and, by that means, it recognises the influence of social and culture context on human mental/psychological well-being.[48] Thus, this bioecological model is highly relevant to address the objectives of this study.

Worth to be noted that, beside of the Bronfenbrenner's bioecological model of development that is used in this study, there is another ecological model that fits into this study, which is the one that is made by Droždek et al.[50] However, seeing that the Droždek et al. model divided the factors based on the three different stages of migrating: while in their country of origin; during their flight to safety; and when having to settle in a country of refugee[50]; while, in the case of Syrian refugees, there was a very limited amount of literature on their experience before and while migrating, we have decided to use the Bronfenbrenner's bioecological model of development.

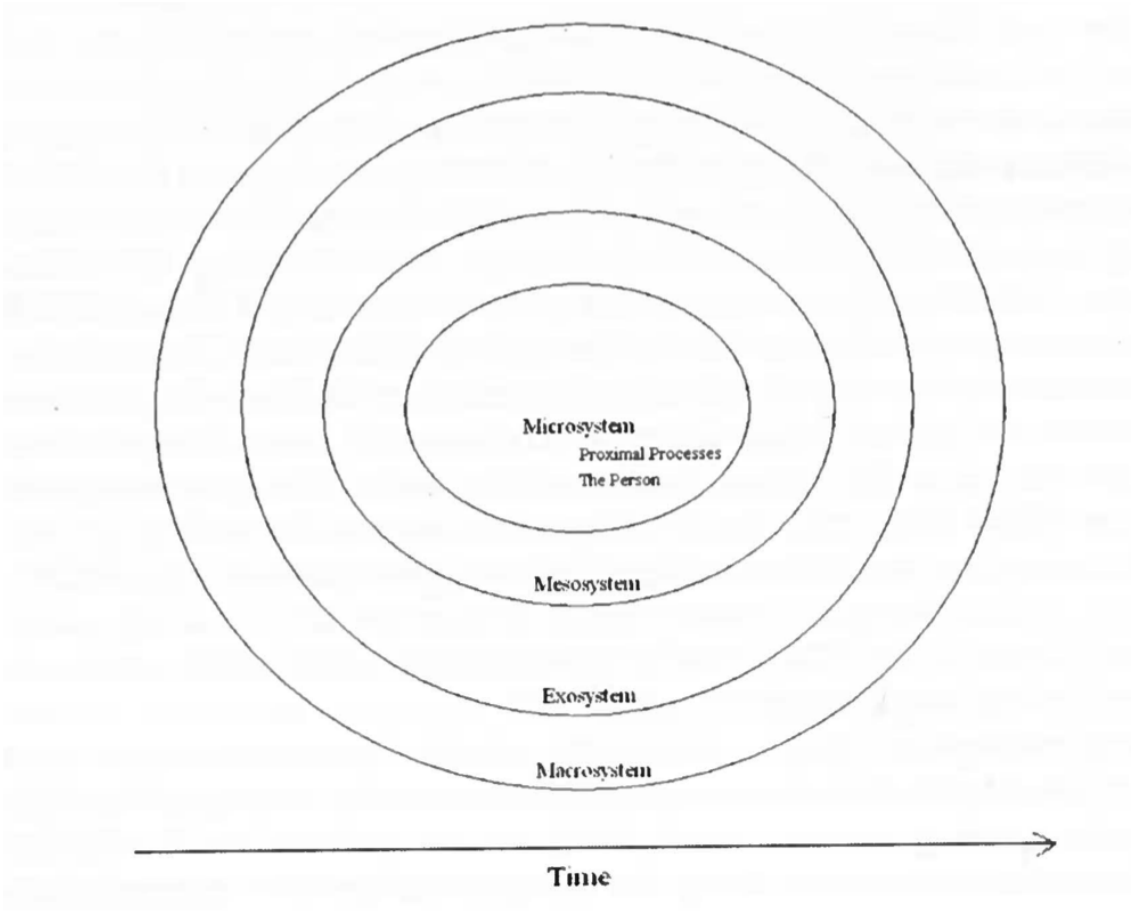

Figure 2. Bronfenbrenner's bioecological model of development[48]

Chapter Four:
Study Findings

4.1 Syrian Children's Mental Health

4.1.1 Exposure to Armed Conflict and The Experience of Trauma, Loss, and Complex Grief Related to it

Refugee children were often exposed to multiple stressors and trauma. And for many refugee survivors, when we considered their vortex of stressor and trauma; that is, the experience of exile, loss of family or friends through death or exile, family fragmentation, hunger, violence, torture, resettlement, changing roles, status and identity, the theme that represented most powerfully all of these components was the theme of complex grief.[51] As it is known that the experience of multiple stressors and trauma in refugee children could impact their physical well-being, cognitive development, psychological well-being, and behaviour[51], the phenomenon of complex grief in these children could explain how we could find varied mental health issues in this population.[27]

In the context of Syrian refugee children, they have experienced high levels of exposure to war-related traumatic events, with studies reporting a mean of four to five traumatic events per child.[52,53,54] It is also known that over 90% of children had experienced armed conflict in Syria before fleeing[53], including gun shooting or blasts[56], and 60% had seen someone kicked, shot, or physically hurt.[56]

Regarding mental issues symptoms and their relation with traumatic events, a study on the Syrian children in a Turkish camp found that the total number of traumatic events correlated significantly with depression.[57] While in Lebanon and Jordan, Syrian refugee children who reported higher levels of exposure to war-related trauma were more likely to show a greater prevalence of emotional dysregulation and PTSD.[58] However, a study in Jordan also found that, instead of traumatic events, poverty was associated with poorer executive functioning.[54] This finding suggested that there was a significant impact of different aspects of displacement on the refugee children.[54]

4.1.2 Exposure to Armed Conflict and Mental Health Issues Related to it

A study found that the war-affected Syrian children suffered from significantly high rates of mental issues[12], amongst the most frequent of which were depression, anxiety, and PTSD.[35,36]

In the context of the refugees living in the neighbouring countries, almost 50% of the Syrian refugee children in Turkey showed clinically significant levels of anxiety and withdrawal[37]; in Lebanon and Jordan, 45.6% of Syrian refugee children developed PTSD[38]; and 53% of Syrian refugee children in Jordan also experienced high insecurity levels, and 82.5% of them were exposed to more than four-lifetime traumas.[39] Furthermore, Syrian refugee children are also known to experience emotional and behavioural regression, including high anxiety levels, bedwetting, nightmares, and panic attacks.[36,40,41]

Regarding gender differences and their relation with psychological outcomes, across many studies on Syrian refugee children living in Turkey and Syria, gender is found to be significantly related to mental issues with adolescent girls, in particular, evidencing poorer

well-being. Girls reported a greater appraisal of danger, more internalising and post-traumatic stress symptoms, higher mean depression and anxiety scores, and higher PTSD symptoms than boys.[55,59] However, another study in Turkey found that, even though girls aged 13 years and older reported more depression than boys, this gender difference was not witnessed among younger children.[57]

On the other hand, a study on the Syrian school-going children in Lebanon and Jordan found no significant association between gender and PTSD.[58] It is also found that emotional dysregulation and PTSD symptomology significantly decreased the longer children were resettled in Lebanon and Jordan.[58] However, seeing that the general prevalence of PTSD was higher for those resettled in Lebanon than Jordan, as a result of the more significant economic, legal, and security problems faced by Syrian refugees in these two countries; the findings in the aforementioned study might be supported by the fact that those children were attending schools, which was not necessarily typical of older children in both countries.[58]

4. 2 Psychosocial Factors in the Microsystem Level

4.2.1 The Person

4.2.1.1 Neurobiological: Monoamine Oxidase A Gene Variant

Responses to trauma were highly varied, and genetic variants might help to explain variation in reactions to trauma by identifying alleles that are associated with changes in mental health measures. The monoamine oxidase A gene (MAOA) has been widely studied for its role in influencing the impact of childhood trauma on adult aggressive and antisocial behaviour.[60] A study found that childhood trauma was more likely to lead to antisocial and violent behaviour in males who carried an MAOA variant with low transcriptional activity (MAOA-L).[61]

In the context of Syrian refugee children, a study in Jordan revealed a significant association between MAOA-L and perceived psychosocial stress over time in the male youth. However, when the study sample had a high score of resilience, MAOA-L was no longer associated with perceived psychosocial stress. And when those who have MAOA-L reported having a low trauma exposure or high resilience, they showed the sharpest reductions in perceived psychosocial stress over time.[62]

The above-mentioned findings showed us that even if an MAOA-L variant in Syrian male youth might have posed as a risk factor to develop mental health issues after being exposed to childhood trauma, the level of their trauma exposure and self-resilience were more superior than the MAOA variants they carried in determining whether they might have developed mental health issues or not.

4.2.1.2 Self-Efficacy

In terms of the risk factor, studies found that the essential characteristic resilient children had is that of self-efficacy[31], as children with this trait had a strong sense of self-worth and self-esteem that would make them able to recover from the stresses better than others who did not have it.[63]

Self-efficacy developed during childhood and adolescence, in which parents provided their children with knowledge about themselves and their abilities and the world around

them. Thus, self-efficacy was affected by parenting and life events: it was increased by the effectiveness of parenting level and decreased by stresses from life events.[64]

While no specific literature was found on the level of self-efficacy in the Syrian refugee children living in Turkey and Lebanon, a study in Jordan revealed that the Syrian refugee students living either inside or outside the refugee camps had a low degree of self-efficacy.[65] Thus, low self-efficacy might has acted as a risk factor for the Syrian refugee children living in Jordan to get mental health issues.

4.2.1.3 Self-identity

A study found that refugee children who experienced uncertainty about their identity were more likely to feel marginalised and hopeless.[66] Thus, developing a strong and positive self-identity could be an important protective factor in preventing the Syrian refugee children to get mental health issues.

A study of Syrian adult refugees in Turkey found that a sense of belonging and continuity derived from Syrian ethnic identity worked as a protective factor against the adverse mental and physical health effects of perceived discrimination. This study also found that Syrian refugees who derived a sense of efficacy and meaningfulness from their ethnic identity exhibited lower depression and anxiety.[67]

Although the above-mentioned study was conducted on Syrian adults in Turkey, considering that most Syrian adults represented in this study were parents to children and adolescents, their ethnic identity could be an asset for families and children in the face of various risks such as negative stereotyping, stigmatisation, sense of hopelessness, and lack of legal rights.[68] Thus, the above-mentioned study showed us that, for Syrian refugee children living in Turkey, having a strong and positive self-identity might have acted as a protective factor to prevent the development of mental health issues in these children.

We also assume that, despite the fact that there was no specific literature found on the association between self-identity with mental health issues in the Syrian refugee children living in the Lebanon and Jordan, this study could provide insight into the developmental processes of resilience in the case of Syrian refugee children living in the other neighbouring countries.

4.2.1.4 Perception towards Religion

Parent's management of challenges and uncertainties in refugee contexts affected both their own mental health and that of their children.[69,70] Therefore, identifying and understanding these coping strategies were important to identify the characteristic of resilient parents, and therefore resilient children, in the Syrian refugee communities; which, in turn, could help the practitioners to develop more effective interventions that is tailored to support these parents in better managing the challenges they faced in caring for their children in the refugee contexts and promote the development of a resilient children.[71]

Many studies of coping mechanism in refugee parents have found that religious belief and practices provided a number of coping strategies, such as endurance [72] and productive adaptation to life difficulties[73]; and therefore, made them resilient.

In terms of Syrian refugee, a study in the pre-resettlement context in Syria and Turkey, where all participants were Muslim, found that there were three themes of coping mechanism that had been used by the refugee parents to remain resilient and to care for their children: 1) adaptation to a new norm; 2) reaching out for support; and 3) maintaining

mental health using religion.[71] These themes were congruent with the characteristics that had been identified as buffers to the development of psychological disturbance.[74,75,76] However, these findings offered a unique insight into the coping mechanisms Syrian refugee parents used, as, apparently, religion appeared as a clear common element between them, often facilitating other coping strategies.[71]

The study also revealed that the participants maintained religious practices to alleviate their stress and felt better by doing so, which was consistent with previous finding with other refugees in the different contexts.[73,75] These refugee parents engaged in their faith by surrendering themselves to God, undertaking religious activities, and asking God for strength and patience.[71]

Moreover, as all participants were Muslim, in which believers are encouraged to follow the teachings of the Quran, the holy book, they believed on the Quran's revelation stating that parents will be judged by God on how much effort they put in caring for their children. Parents described this as a motivator to make an effort to spend time with their children and be more patient even when they felt overwhelmed with their own emotions.[71]

The above-mentioned studies showed us that, for Syrian refugee children living in the pre-resettlement context in Syria and Turkey, having a resilient parent who established their positive coping strategies based on their faith in Islamic belief and practices, might have acted as a protective factor to prevent the development of mental health issues in these children.

Also, worth to be noted that, while there was no specific literature found on the association between religion with mental health issues in Syrian refugee children living in Lebanon and Jordan; as we know that the majority of Syrian refugee population were identified as Muslim, there were a high probability of Syrian refugee parents living in Lebanon and Jordan to have the same idea of faith with those who still lived in Syria and Turkey, in terms of managing challenges and uncertainties in the refugee contexts. And therefore, the summary of the findings in this subchapter might also be applicable for those who lived in Lebanon and Jordan.

4.2.2 The Proximal Processes

Factors within Family

4.2.2.1 Parental Stress and Psychopathology

Parent-related factors have been studied as part of the mechanism through which different traumatic events could lead to child mental health issues: mainly because children and parents were usually concurrently subjected to traumatic events.[77] A systematic review studying the effects of armed conflict and terrorism on children aged 0–6 years revealed that stress and psychopathology in parents could predict the development of behavioural problems, somatic complaints, and post-traumatic stress symptoms in their children.[78]

Interestingly, in terms of the Syrian refugee, a study in Turkey revealed that both stress and psychopathology in the Syrian refugee parents could predict the development of general mental health problems in their children.[79] While in Lebanon, it was found that there was an association between mother's general psychological distress and child psychosocial difficulties.[80]

While there was no specific literature found on the association between parental stress and psychopathology with mental health issues in Syrian refugee children living in Jordan,

the above-mentioned findings showed us that parental stress and psychopathology in the Syrian refugee residing in Turkey; and, only, parental stress in Syrian refugee living in Lebanon, might have acted as a risk factor for their children to get mental health issues.

4.2.2.2 Negative Parenting Behaviours

Many studies suggested that, in conflict settings, parental mental health issues had a predictive value on the development of behavioural problems, somatic complaints, and PTSD in their children. One of the mechanisms underlying this association was said to be negative parenting behaviours. This hypothesis could be explained by the fact that parental mental health problems had a negative effect on parenting behaviour, both in non-war and war settings.[78,80,81,82,83]

Congruent with the above-mentioned pattern is the finding from an earlier study by Sim et al. in Lebanon, which revealed that maternal general psychological distress was directly associated with parental harsh punishment and rejection in the Syrian refugee parents.[80] A study in Turkey also found that the Syrian refugee children perceived negative parenting behaviours as one of the contributors of their general mental health problems.[84]

While there was no specific literature found on the association between negative parenting and mental health issues in Syrian refugee children living in Jordan, the above-mentioned studies showed us that the negative parenting practised by Syrian refugee parents in Turkey and Lebanon might has acted as a risk factor for their children to get mental health issues.

4.2.2.3 Parental Attachment

A study has found a significant association between children's insecure parental attachment with emotional and behavioural problems in the conflict settings.[85] And other studies revealed that the underpinning mechanism of the parental attachment disruption in the war-torn refugee parents was found to be the refugee parent's traumatisation.[86,87]

A study in Turkey revealed that the Syrian refugee children attending a private school perceived insecure parental attachment as one of the significant contributors of their mental health issues, including PTSD and general mental health problems. [84]

Interestingly, in terms of the association between parental attachment with parenting behaviours, the above-mentioned study found that the children who experienced insecure attachment relationship with their parents were more likely to perceive their parents as rejecting and emotionally less warm.[84]

While there was no specific literature found on the association between parental attachment and mental health issues in Syrian refugee children living in Lebanon and Jordan, the above-mentioned studies showed us that, in Turkey, the insecure attachment relationship experienced by the Syrian refugee children with their parents might has acted as a risk factor for them to get mental health issues. And, inversely, the secure attachment relationship that they had with their parents might has acted as a protective factor for them to prevent the development of mental health issues.

4.2.2.4 Family Support

A study has found that a family support was seen as a protective factor to prevent the development of mental health issues in the refugee children who have experienced traumatic events due to war and organised violence.[88]

Congruent with the above-mentioned pattern is the finding from a study in Syrian refugee children living in Turkey which found that a family support in difficult times had a significant negative correlation with depression.[90] Another study in Jordan also found that support provided by any family members of the Syrian refugee children could significantly accelerated the healing time of these children's mental health issues.[90]

While there was no specific literature found on the association between family support and mental health issues in Syrian refugee children living in Turkey and Lebanon, the above-mentioned studies showed us that, in Jordan, family support during difficult times might has acted as a protective factor to prevent the development and accelerated the healing time of mental health issues in these children.

Factors within School (School Interaction)

4.2.2.5 Discrimination at School

Some empirical studies have found that mental health issues appeared to be more prevalent in refugee children compared to second generation immigrants or native children living in the same country.[91,92] Some of the causal hypotheses on this matter have focused on experiencing and perceiving discrimination and the interactive role of this phenomenon in the social adaptation process demanded from refugee children, as mental health issues have been hypothesised to impede social adaptation, and vice versa, and discrimination was assumed to interact with both. Thus, being subjected to the experience of discrimination has been identified as one of the most important resettlement stressors, which might have affected the mental health status of the refugee children.[93,94]

A study of the refugee children from the Middle East has found that discrimination predicted internalising behaviour problems[93], but not for externalising behaviour problems as what was found in adult refugees.[95] Regarding the Syrian refugee children living in the neighbouring countries, a study has reported that these children faced discriminatory acts, such as marginalisation, bullying, and acts of violence in schools.[96] In Lebanon and Jordan, native parents have expressed frustration with the influx of Syrian children, fearing their presence could compromise the overall quality of education, which in turn resulted in the increased hostility toward these children.[97] In Turkey, a study also found that all of its study participants indicated that they had to cope with discrimination at school due to being a Syrian refugee, with the native parents played the same role in this phenomenon as the one in Lebanon and Jordan.[98]

The above-mentioned studies showed us that discrimination at school, definitely, might has acted as the risk factor for the Syrian refugee children living in Turkey, Lebanon, and Jordan to get mental health issues.

4. 3 Psychosocial Factors in the Mesosystem Level

4.3.1 Conflict between Microsystem

4.3.1.1 Culture Conflict: Skills for Adaptation to Negotiate

At the individual level, refugee children might have faced a significant challenge in meeting cultural discrepancies between their culture of origin and host culture. Related to this issue, a study found that the refugee children's skills for adaptation that could facilitate their active role in negotiating the demands of both cultures during the adaption process could be considered as a protective factor to prevent the development of mental health issues in these children.[31,99]

In the case of adapting in a new environment where there was a significant discrepancy between the two cultures, the values and expectations of the refugees and host could differ.[100] In terms of Syrian refugee children living in the neighbouring countries, although both cultures were found to be heterogeneous, some subcultures might not be so divergent (e.g., individualism versus collectivism). Making the Syrian refugee youth living in these countries might not be facing a dramatic challenge in terms of shifting from collectivism to individualism.[67]

Nevertheless, culture dynamically changes across time and context (e.g., in Turkey, a process of change toward individualism had been observed in the younger generations).[67] Thus, while no specific literature was found on the culture conflict between microsystems that might have played as a protective factor to prevent the development of mental health issues in the Syrian refugee children living in the neighbouring countries, a study suggested that the skill to negotiate the demands of both cultures during the adaption process, such as the development of a personal autonomy, in the Syrian refugee children living in the neighbouring countries still need to be supported in order to protect these children from getting a mental issues due to a failed acculturation.[67]

4.3.1.2 Language Conflict

Studies have found that, in terms of Syrian refugee children living in Turkey, Lebanon, and Jordan, the language conflict often caused problems in the education sector. Most notably, in the case where there was no stable and tailored education system that considered the possible language-related problems these refugee children might have faced in school.[101,102,103]

Further compounding the problem, there was a policy that prohibited the refugee children to enrol in school until they have demonstrated proficiency in the host' language (Turkey); and a policy that obliged the student to use, apart from Arabic, either French or English as the language of instruction in school (Lebanon).[104]

All of the above-mentioned facts had a great negative impact on the Syrian refugee children, as it was found to be one of the underlying mechanisms for the interrupted education in that population.[104]

Nevertheless, due to the fact that the literatures that we found on this matter were all linked to the Syrian refugee children's experience of interrupted education, further explanation would only be discussed under the subchapter of "interrupted education".

4.4. Psychosocial Factors in the Exosystem Level

4.4.1 Education System

Education is known to directly and indirectly contribute to mental health issues in refugee children.[105] This subchapter highlighted issues around education of the Syrian refugee children, including its policies and system, and its relation with their mental health.

4.4.1.1 Interrupted Education

A study of Syrian refugee children living in Lebanon found that children who had an interrupted formal education were more likely to feel marginalised and hopeless, making them vulnerable targets for radicalisation.[106] Other studies in Lebanon and Jordan also found that, the Syrian refugee girls who were not enrolled in school were at risk for sexual assault, sexual exploitation, and early marriage, all of which could contribute to depression, PTSD, and other mental health issues, both for them and their children.[107,108,109]

Unfortunately, in 2015, the UN estimated that more than 50% of Syrian refugee children living in the neighbouring countries were not able to enrol in school.[110,111] While, in Lebanon, the Syrian refugee children who were enrolled in school were known to be at much higher risk for dropping out and having poor or failing grades than their peers.[112]

In terms of the underlying mechanism for the interrupted education in the Syrian refugee children living in the neighbouring countries, it is known that there were several of them:

1. The deterioration of Syrian's education system due to the destruction or conversion into shelter of one in four schools in Syria.[113]
2. The limited capacity of the host country's existing schools in accepting new students (Lebanon, Jordan, Turkey).[105,114]
3. The host country's policy of not enrolling children who have missed three or more years of school (Jordan).[115]
4. The language barrier that was faced by the Syrian refugee children, as Turkey had a policy that prohibit the refugee children to enrol in school until they have demonstrated proficiency in Turkish; and as many Syrian refugee children in Lebanon struggled to learn French or English and Arabic as the language of instruction in schools.[116]
5. The economic hardship of Syrian refugee families, which led to some instances where they could not pay for small costs associated with schooling, such as for books or transportation, which in turn made the families reluctant to send their children to school despite the fact that the host country's government had offered reduced or free school enrolment fee (Turkey).[117] And also led to the need of them to send their children to work in order to make ends meet, often in dangerous jobs with low pay, instead of sending their children to school (Lebanon).[118]
6. The Syrian refugee children lived far away from school and did not have reliable transportation to reach it (Lebanon).[119]
7. The Syrian refugee children were unable to demonstrate their refugee status or verify their previous education (Lebanon).[119]

These studies showed us that, for the Syrian refugee children living in Lebanon and Jordan, an interrupted education might have acted as a risk factor for them to get mental health issues. And, while there was no specific literature found on the association between interrupted education and mental health issues in the Syrian refugee children living in Turkey, as it was evident that the underlying mechanisms for the interrupted education in

the Syrian refugee children were exist in Turkey, we assume that there was also a high probability for the interrupted education acted as a risk factor for these children to get mental health issues.

4.4.1.2 Lack of Tailored Education System for Refugee Children

Psychological wellbeing of immigrant children, including those who came from the refugee population, was affected by how well the host country's schools helped them to overcome the myriad obstacles they faced in succeeding at school and building a new life.[120]

Unfortunately, it is known that refugees often encountered many problems on account of social injustices.[121,122] One of these injustices was widely observed in the field of education, especially in the cases where host country's existed schools failed to become a learning community that was culturally responsive to the unique needs of children from diverse backgrounds, such as the refugee children.[123]

A study of the Syrian refugee children in Turkey found that, despite the fact the government had exerted efforts to accommodate these children by placing them in educational institutions and supporting them financially, these efforts were found to be made in a haphazard manner lacking any stable system that considered the possible language-related, psychological, and cultural problems these refugee children might have faced.[102]

Other studies also found that the influx of Syrian children has stretched educational resources in Lebanon and Jordan: there were shortages of teachers and books, amongst other things.[105,103] And, in terms its educational quality, these studies found that most teachers in the host country had not been trained in addressing the needs of traumatised refugee children; and, further compounding the problem, Syrian teachers had generally not been allowed to teach in the host countries, though employing them could ease classroom overcrowding and help provide instruction in Arabic.[105,103]

While there was no specific literature found on the association between lack of tailored education system with mental health issues in the Syrian refugee children living in the neighbouring countries, the above-mentioned studies indicated that, for the Syrian refugee children living in the neighbouring countries, lack of tailored education system might have impeded the host country's effort to help these children to overcome the myriad obstacles they faced in succeeding at school and building a new life. This, in turn, could affect the psychological well-being of these children.

4.4.2 Economic System

4.4.2.1 Poor Living Conditions

Studies have found that, the economic pressure caused by the unfair economic policies and system towards the Syrian refugee population living in the neighbouring countries, which, in turn, causing them to live in a poor living condition, had a negative effect on these children's psychological well-being through various kind of ways.[115,116,117,118,119] However, due to the fact that the literatures that we found on this matter were all linked to these children's experience of "interrupted education", further explanation would only be discussed under the subchapter of "interrupted education".

4.4.3 Social System

4.4.3.1 Social Support Network

A study found that social support drawn from families and communities might have acted as a protective shield against the impact of traumatic experiences and any challenges that were faced by refugees in the host country.[124]

Another study in Syria and Turkey, revealed that the use of social dimensions by Syrian refugee parents as a coping strategy was found to be beneficial, especially in dealing with stress and trauma.[71] Social coping used in the aforementioned study involved the usage of available external social support networks (e.g., social support networks from various organisations available in the camp) to access both social and material support.[71] Through these social supports (e.g., supports from neighbours), feelings of belonging in the Syrian refugee parents were increased and also practical help became available, such as support for childcare or chores.[71]

In the above-mentioned study, social support also found to allow Syrian refugee parents to access help and engage with others in an active and problem-solving way, rather than responding passively to events.[71]

Moreover, social coping in this study also involved individual factors, such as social support seeking. Often within war settings, individuals lost significant social networks which might have left them feeling low, depressed, and more likely to develop PTSD.[125] Thus, being able to utilise social support was found as a very adaptive and important coping mechanism, as it is widely viewed as a protective factor against the development of psychopathology following traumatic experience.[126]

Although the above-mentioned study was conducted on Syrian refugee parents, considering that parent's management of challenges and uncertainties in the refugee contexts affected both their own mental health and that of their children[69,70], their resiliency could be an asset for the development of a resilient children in the face of various risks in these contexts.[127] Thus, the above-mentioned study showed us that, for Syrian refugee children living in the pre-resettlement context in Syria and Turkey, having a resilient parent who was able to get and utilise social support could act as a protective factor to prevent the development of mental health issues in these children.

We also assume that, despite the fact that there was no specific literature found on the association between the availability and the ability to get and utilise social support with mental health issues in the Syrian refugee children living in the Lebanon and Jordan, the above-mentioned study could provide insight into the developmental processes of resilience in the case of Syrian refugee children living in these countries.

4.5 Psychosocial Factors within the Macrosystem

4.5.1 Culture

It is known that, when facing contextual challenges, (e.g., culture) an individual might have developed a maladaptation, which, in turn, led to the occurrence of mental health issues within themselves; and might have developed mental health resiliency when they managed to adapt to it.[128]

The following studies below highlighted issues around how the Syrian refugee children living in the neighbouring countries perceived their culture in relation to their host country's culture. The most prominent factors found in this subchapter were cultural distance and cultural dissimilarities.

4.5.1.1 Cultural Distance

A study found that, cultural distance, which referred to the perceived dissimilarity between the immigrant's culture of origin and the host culture[99], is likely to be narrower between Syria and its neighbouring countries when compared to the cultural distance between Syria and the Euro-American societies.[101]

Most notably, in Turkey, it is known that this particular country shared many regional similarities, including food, family life, traditions, and values with Syria.[101] Moreover, it is also known that most Syrian refugees came from Northern Syria regions, where local residents had close social and familial connections with the Turkish society.[129]

All of the above-mentioned dynamics were found to help decreasing the cultural distance between Syrian refugee children and its host' society in the neighbouring countries, which, in turn, served as protective factors in reducing the occurrence, or perhaps the severity, of mental health issues in these children during the adaptation process.[101]

4.5.1.2 Cultural Dissimilarities and its Relation with Social Prejudice and Discrimination

A study found that, despite the availability of factors that facilitated developmental adaptation of Syrian refugee living in Turkey, there were also cultural dissimilarities that widened the cultural distance in this context. For instance, Turkish civil law known to not allow polygamous marriages and child marriages, while marriages of Syrian women with already married local men as well as underage marriages of young girls have become an issue that raised social tension lately.[101] Turkish law also known to not permit registration of babies born in these marriages, which, in turn, made these women and their children facing social stigmatisation.

In the end, the above-mentioned dynamics found to fuel negative prejudice and discrimination towards Syrian refugees living in Turkey and served as risk factors that might have hampered the adaptation process of Syrian refugee children living in Turkey, thereby made these children at high risk to get mental health issues.[101]

4.5.2 Religion System

A study found that mental health issues were observed in the Muslim immigrant youth living in Europe when they perceived the mainstream culture as rejecting their religious heritage.[130] This study also found that the aforementioned rejection reflected in the Islamophobic sentiments expressed by the host community and discrimination faced by these Muslim immigrant youth, which were perceived by these youth as acculturative challenges. [130]

In terms of Syrian refugee children, a study in Turkey found that Islam, as the most common religious beliefs among the host and Syrian refugee population, served as a reference point for the justification of the "open-door" policy for Syrians in Turkey, both by

the government and the host' community, through which the host' community were encouraged to welcome and support Syrian refugees.[101]

The above-mentioned study also found that there was a vibrant civil society activism doing charitable work, in the name of Islam, to help the families of the killed or wounded Syrians during the atrocities in their home country.[101] The aforementioned dynamics were known to help decrease the cultural distance between the Syrian refugee community and its host community in Turkey.[101]

The above-mentioned findings showed us that, for Syrian refugee children living in Turkey, the similarity in the belief system between the refugee and host community caused the religion-related acculturative stress appeared to be less likely to occur in them; and helped to decrease the cultural distance between the two parties, and therefore served as protective factors in reducing the occurrence, or perhaps the severity, of mental health issues in these children during the adaptation process.

4.6 Preventive Mental Health Interventions in the Context of Syrian Refugee Children

In order to identify potential children at risk to get mental health issues, valid screening and measurement tools were essential.[101] However, as the numbers of refugee children entering neighbouring countries of Syria had been increased, it is known that practitioners applied mental health screening and measurement tools widely regardless of its cultural validity.[101] Thus, the relevancy and applicability of these tools need to be established/re-established.

It is also known that, developing screening and measurement tools of trauma and mental health that is culturally and developmentally sensitive was essential to detect and mitigate refugee children' mental health issues adequately.[101]

Given the above-mentioned findings, researchers have put some efforts to tackle those issues in some of Syria's neighbouring countries:

1. In Turkey, two analyses of quality of interventions were conducted on Syrian refugee children of school age:
    a) The first study examined an art therapy intervention on depression, anxiety problems, and PTSD. The assessments included measures of stressful and traumatic life events, depression, anxiety, and PTSD. Following the baseline assessment, licensed art therapists delivered a 5-day art therapy programme of three daily consecutive sessions, consisting of music, dance/movement, and visual art, which is followed by the Skills for Psychological Recovery programme for 2 days. In addition, Cultural sensitivity was pursued through the use of Syrian volunteer interpreters who carried out sessions in Arabic. Post-treatment assessments demonstrated significant improvements in children's symptoms of trauma, depression, and trait anxiety symptoms compared to the baseline assessments.[131]
    b) The second study evaluated a school-based, teacher-led, culturally adaptive cognitive behaviour therapy programme aimed at alleviating emotional distress and supporting the psychological functioning of Syrian children. In this intervention study, Arabic speaking teachers were trained and supervised by the study team, and they delivered the programme at a Temporary Education Centre for the duration of eight weekly sessions. The sample was randomly selected from the total school population and none of the children were unaccompanied minors. Post-test evaluation revealed a significant reduction in emotional and

trauma-related symptoms. Statistically significant differences were found in anxiety, traumatic stress, and emotional problems. However, no significant change was observed in the total score and the subcategories of conduct problems, hyperactivity, peer problems, or pro-social behaviour.[132]

2. In Jordan, a randomized control trials were conducted on an 8-week programme. The intervention study revealed that the programme, which was a psychosocial group intervention delivered by trained lay coaches, had a sustained beneficial impact both on symptoms of insecurity and distress and on emotional and behavioural difficulties in the Syrian refugee children of school age. However, the study found no discern impacts for measures of post-traumatic stress reactions and pro-social behaviour, as compared to controls.

   It is also stated in the study that the evaluation of sustained effects will require more frequent follow-up assessments, as small to moderate intervention impacts will likely diminish over time, especially in the absence of sustained programming aimed at improving family-level circumstances.[133]

Chapter Five:
Discussion

5.1 Summary of Main Findings

There were well-documented studies showing that dislocated Syrian refugee children who were exposed to war-related violence suffered from various psychological distresses which can also lead to mental health issues. Amongst Syrian refugee children living in the neighbouring countries, depression, anxiety, and post-traumatic stress disorder were the most common mental health issues.

The psychosocial factors that could act as a protective factor to prevent the development of mental health issues in Syrian refugee children; as well as risk factors for them to get mental health issues, were featured in the following subchapters and are summarised in table 4:

a. psychosocial factors in the microsystem level;
b. psychosocial factors in the mesosystem level;
c. psychosocial factors in the exosystem level;
d. and psychosocial factors within the macrosystem.

Table 4. Psychosocial risk and protective factors for mental health issues in Syrian refugee children living in Turkey, Lebanon, and Jordan

Subchapter	Psychosocial Risk Factors	Psychosocial Protective Factors
Microsystem Level	- Monoamine Oxidase A Gene variant with low transcriptional activity (found in Jordan, but might also be applicable in Turkey and Lebanon) -Low degree of self-efficacy (Jordan) - Parental stress (Turkey and Lebanon) -Parental psychopathology (Turkey) - Negative parenting behaviours (Turkey and Lebanon) - Insecure parental attachment (Turkey) -Discrimination at school (Turkey, Lebanon, and Jordan)	- Strong and positive self-identity (Turkey) -Strong and positive perception towards religion (found in Turkey, but might also be applicable in Lebanon and Jordan) -Family support during difficult times (Jordan)
Mesosystem Level	Language conflict (Turkey, Lebanon, Jordan)	Skill adaptation to negotiate the cultural conflict between settings at the microsystem level (might be applicable for Turkey, Lebanon, and Jordan, as their culture appeared to be heterogenous with Syrian's culture)
Exosystem Level	- Interrupted education (Turkey, Lebanon, and Jordan) -Lack of tailored education system for refugee children (Turkey, Lebanon, and Jordan) -Economic hardship: poor living condition (Turkey, Lebanon, and Jordan)	Ability to get and utilise social support (Turkey)
Macrosystem Level	Cultural dissimilarities related to polygamous and child marriage (Turkey)	- Close cultural distance (Turkey, Lebanon, and Jordan) - Similar religious system (Turkey)

In terms of the existing preventive mental health interventions for Syrian refugee children living in the neighbouring countries, three studies to assess the interventions'

relevancy and applicability were available in Turkey and Jordan. The two studies in Turkey revealed that:

a) An art therapy intervention on depression, anxiety problems, and PTSD was found to be effective in improving Syrian refugee children's symptoms of trauma, depression, and anxiety traits. It needs to be noted that a cultural sensitivity was pursued in this intervention, however, this intervention only targeted school-age children.
b) A school-based, teacher-led, culturally adaptive cognitive behaviour therapy programme aimed at alleviating emotional distress and supporting the psychological functioning of Syrian refugee children was found to be effective in improving anxiety traits, traumatic stress, and emotional problems. However, this intervention also only targeted school-age children.

A study in Jordan revealed that an 8-week Advancing Adolescents programme was found to have sustained beneficial impacts both on symptoms of insecurity and distress; and on emotional and behavioural difficulties of Syrian refugee adolescents. However, it needs to be noted that:

a) the intervention also only targeted school-age children;
b) evaluation of sustained effects will require more frequent follow-up assessments, as small to moderate intervention impacts will likely diminish over time, especially in the absence of sustained programming aimed at improving family-level circumstances.

5.2 Detailed Discussion and Recommendations

5.2.1 Mental health issues in Syrian children living in Turkey, Lebanon, and Jordan: addressing research question 1

The nearly 12 years of conflict in Syria has created the world's largest wave of displacement in modern history, which is, as of late 2021, causing almost 2.7 million children to be forcibly displaced in Syria's neighbouring countries. However, while neighbouring countries of asylum, wealthy nations, and international organisations donated aid to address the Syrian refugee crises, the immense magnitude of the problem has resulted in the underfunding of both refugee camps and resettlement programmes, which, in turn, led to poor living conditions of refugees in the camps. This phenomenon especially happened at the camps located in Turkey, Lebanon, and Jordan, as all of them are low and middle-income countries (LMICs).

And with no end in sight, as the civil war is still raging on, the suffering and trauma experienced by the Syrian refugee children before fleeing and the poor living conditions within the refugee camps in the neighbouring countries put these children at high risk for mental health issues. Congruent with the latter statement is the fact that the war-affected Syrian children suffered from significantly high rates of mental health issues, amongst the most frequent were depression, anxiety, and post-traumatic stress disorder (PTSD). In terms of those who lived in the neighbouring countries, almost 50% of the Syrian refugee children in Turkey showed clinically significant levels of anxiety and withdrawal; and in Lebanon and Jordan, 45.6% of Syrian refugee children developed PTSD. Furthermore, these Syrian refugee

children were also found to experience emotional and behavioural regression, including high anxiety levels, bedwetting, nightmares, and panic attacks.

Apart from looking at the prevalence of mental health issues in Syrian refugee children living in the neighbouring countries, we also see the importance of analysing whether the mental health issues of Syrian refugee children were related to the traumatic events that they have experienced before fleeing or not. It is known that the experience of multiple stressors and trauma in refugee children could impact their physical well-being, cognitive development, psychological well-being, and behaviour. Analysing such relation will help practitioners to compare the effect of the specific contextual challenges on the Syrian refugee children's mental health: which mental health issue was greatly affected by traumatic experience that they got before fleeing and which one was greatly affected by the contextual challenges in the host country or pre-settlement area. And apparently, we found that, in Turkey, the total number of traumatic events in these children correlated significantly with depression. While in Lebanon and Jordan, Syrian refugee children who reported higher levels of exposure to war-related trauma were more likely to show a greater prevalence of emotional dysregulation and PTSD.

The above-mentioned findings, eventually, led us to another question:

"How about the other mental health issues? Were they affected more by the contextual challenges in the pre-settlement area or host countries?"

Unfortunately, while we found no exact answer in the context of Turkey and Lebanon, it is known that in Jordan, instead of traumatic events, poverty was strongly associated with poorer executive functioning (e.g., working memory, cognitive flexibility, and inhibitory control). Even though more research needs to be done to analyse this matter, in relation to more mental health issues and countries (especially, Turkey and Lebanon), this finding suggests that there was a significant impact of different aspects of displacement on the refugee children.

Moreover, we also see the need to analyse whether gender differences affected the mental health issues in Syrian refugee children living in the neighbouring countries. It is known that, in Lebanon and Jordan, the low-level education of Syrian refugee girls has caused them to be at risk for sexual assault, sexual exploitation, and early marriage, which, in turn, made them more susceptible to get mental health issues, especially depression and PTSD. And apparently, across many studies on Syrian refugee children living in Syria and Turkey, gender was found to be significantly related to mental issues with adolescent girls, in particular, evidencing poorer well-being. In those studies, girls reported a greater appraisal of danger, more internalising and post-traumatic stress symptoms, higher mean depression and anxiety scores, and higher PTSD symptoms than boys. However, another study in Turkey found that this gender difference was only found in Syrian refugee girls aged 13 years and older and was not witnessed amongst younger children.

Interestingly, the above-mentioned findings were not found in Lebanon and Jordan, some studies in these countries even reported that emotional dysregulation and PTSD symptomology significantly decreased the longer children were resettled in the countries. However, seeing that the general prevalence of PTSD was higher for Syrian refugee children resettled in Lebanon than in Jordan, as a result of the more significant economic, legal, and security problems faced by them; the findings in the aforementioned study might be supported by the fact that those children were attending schools, which was not necessarily typical of older children in these two countries. In the end, we can assume that gender,

indeed, has an effect on mental health issues in Syrian refugee children, with girls seem to be more susceptible than boys.

5.2.2 Psychosocial Risk and Protective Factors Influencing the Mental Health of Syrian Refugee Children Living in Turkey, Lebanon, and Jordan: addressing research question 2 and 3

Practitioners used different language and explanations to describe the mental health and psychological well-being of children, which, in turn, led to confusion amongst parents and professionals themselves. Thus, we see that it is essential to choose what definition and explanation will be used in the coming discussion about mental health in the context of Syrian refugee children.

Dogra et al. stated the concept of mental health should be considered to be on a continuum between mental/psychological well-being, at one end, and mental issues, on the other: ranges from typical human emotional experience to extreme psychological distress and mental ill-health (See figure 1). Furthermore, Dogra et al. also recognised the reciprocal interaction between a child and their social and culture context in determining their mental health needs and issues, which is important for better understanding the high-context situations of refugee children.

In terms of refugee children's mental health, it is known that these children might experience what is termed as the 'cumulative stress' of forced migration or the compounding stressors of childhood with the extraordinary and traumatic experiences of displacement. Consequently, these children are at a greater risk for psychological distress than non-refugee children. Nevertheless, a study found that despite the traumatic experiences that the refugee children had, many of them appeared to be resilient to adversity and could do well in life.

The concept of mental health resilience in children itself had been used to refer to the qualities that help vulnerable children deal with adversity, which might help them cope in the face of immense pain and disadvantage. Moreover, Masten et al. has conceptualised resilience in three ways, which are process, capacity, and outcome: it is described as the adaptation process in the presence of significant challenges (risk factors and stressors), where certain capacities (personal and environmental factors) are facilitating one's resilience/well-being state. In the end, it is evident that mental health resilience is a multifaceted interaction between the individual and the environment.

In terms of Syrian refugee children, to gain more insight into the resilience framework of these children, one must understand the risk and protective factors that relate to their mental health. As, while the refugee children's resilience framework focuses more on the protective factors, it has its roots in the risk framework, since it is concerned with children who have faced significant threats to their development and their ability to remain competitive despite these adverse conditions.

For better conceptualising the above-mentioned factors, we used the Bronfenbrenner's bioecological model of human development that brought together the developmental and ecological perspectives into one framework to understand how environmental forces interact with physiological attributes to shape psychological outcomes in an individual (see figure 2).

Also, worth to be noted that, we see that it is essential to address the risk and protective factors within the resilience framework of Syrian refugee children's mental health separately instead of defining them in broad terms, as wide variations of mental health issues reported in these particular population could reflect the complexity of the interaction of heterogeneous cultural and contextual factors in it.

5.2.2.1 Psychosocial Risk Factors

5.2.2.1.1 Microsystem level

In relation to the mental health resilience in Syrian refuge children, study in Turkey found that even though the Syrian male youth who has monoamine oxidase A gene variant with low transcriptional activity (MAOA-L) might be more susceptible to develop mental health issues after being exposed to childhood trauma, the low level of trauma exposure experienced by them, and most importantly, their self-resilience were more superior than the MAOA-L they carried in determining whether they might have developed mental health issues or not; and whether they would have a quick healing time or not when they were being afflicted by mental health issues.

In terms of self-efficacy, it is known as one of the most essential characteristics of resilient refugee children. Unfortunately, Syrian refugee children living in Jordan reported to have a low degree of self-efficacy, making them vulnerable to get mental health issues. However, the latter study was done only amongst Syrian refugee children who attended school, which means this finding could be not applicable for younger children and or those who did not attend school for various reasons. Also, worth to be noted that, self-efficacy could be affected by parenting: it is increased by the effective parenting behaviour, and vice versa. Unfortunately, we found no specific literature on the parenting behaviour of Syrian refugee living in Jordan.

In terms of risk factors that were related to the circumstances of Syrian refugee parents, it is known that parental traumatisation, stress, and psychopathology could cause the parents to have a negative parenting behaviour that led to the perceived insecure parental attachment on their children, which, in turn causing these children to be more susceptible to get mental health issues. Congruent with these findings, are the findings from Turkey showing that parental stress and psychopathology, negative parenting behaviour, and insecure parental attachment might have caused their children to get general mental health problems, especially aggressive behaviour; and studies in Lebanon showing that parental stress and negative parenting behaviour might have caused their children to get psychosocial difficulties.

In terms of discrimination at school as a risk factor for the Syrian refugee children living in Turkey, Lebanon, and Jordan to get mental health issues, as we see it, the biggest challenge for the acceptance and integration of these children was the negative stigmatisation and prejudices from the native parents. It is likely that the native children acted on the prejudicial views of their parents and reflected it in their interaction with Syrian refugee children in their everyday lives. Moreover, besides prejudice, ignorance and poor communication might be related with discrimination in this case.

Lastly, we believe further research in Jordan and Lebanon on the association between the parental circumstances, that has not been explored before, with mental health issues in Syrian refugee children will benefit these children on the long run. And so it is with the research on the self-efficacy and its association with mental health issues in the Syrian refugee children living in Turkey and Lebanon. Especially, as it is known that some of the aforementioned factors already existed in those countries and those factors were known to be interrelated with each other.

5.2.2.1.2 Mesosystem level

In this particular level of environment, language conflict was found as a risk factor for the Syrian refugee children living in Turkey, Lebanon, and Jordan to get mental health issues. Interestingly, this conflict mainly caused problems in the education sector, which was closely related to the interrupted education phenomenon. Thus, further discussion would only be done under the subchapter of exosystem level.

5.2.2.1.3 Exosystem level

In this particular level of environment, the risk factors came from the education and economic system, and they were all applicable for Turkey, Lebanon, and Jordan. In terms of education system, interrupted education and lack of tailored education system for refugee children were found to be risk factors for Syrian refugee children living in Turkey, Lebanon, and Jordan to get mental health issues.

Regarding the interrupted education, studies found that Syrian refugee children who experienced this challenge were more likely to face more challenges in adapting to the new environment. This happened as they were more likely to get mental health issues, which could make them vulnerable targets for radicalization or to be at risk for sexual assault, sexual exploitation, and early marriage, all of which, could worsen even further the development of mental health issues in these children.

Unfortunately, the educational crisis in the Syrian refugee children population was evident in Turkey, Lebanon, and Jordan, which might have happened because of the existence of many factors that contributed to the interrupted education in those countries. Moreover, the educational crisis has got worse in those countries, which might have happened because of the fact that the lack of tailored education system for refugee children was evident in those countries.

Seeing that *Education for All* lists six goals of refugee education: free access to primary education, equitable access to appropriate learning for youth and adults, increasing adult literacy, eliminating gender disparities, and quality education; we believe that focusing only on the access set of the goals for Syrian refugee children's education will not solve the above-mentioned problems, instead, it can even further complicate the problems.

All in all, in terms of educational crisis as the risk factors of the Syrian refugee children to get mental health issues, we believe that, policy makers should put more emphasis on tailoring a stable education system that will match the needs of the Syrian refugee children by considering the possible language-related, psychological, and cultural problems these refugee children may face in the host country.

Lastly, in terms of the economic hardships, it is known that the impartial policies on economic for Syrian refugees living Turkey, Lebanon, and Jordan, had resulted in the poor living condition experienced by them. This, in turn, impinged the adaptation process of Syrian refugee children, making them susceptible to get mental health issues. Given the aforementioned issues, and the fact that creating an economically active population has always been better than creating an aid-dependent population, we believe that some economic policy easing for refugee population living In Turkey, Lebanon, and Jordan will benefit both parties (the host community and Syrian refugee community) on the long run.

5.2.2.1.4 Macrosystem Level

In this particular level of environment, cultural dissimilarities related to polygamous and child marriage found to play as the risk factors for Syrian refugee children living in Turkey.

We assume that it is going to be difficult to change the laws in Turkey, as polygamous and child marriages are a very sensitive topic there and are illegal. However, seeing that, other than due to a cultural reason, the polygamous and child marriage practice among Syrian refugee community in Turkey also happened due to economic hardship and low level of education that are experienced by the Syrian refugees; we believe that changing the policies on work and education system for the Syrian refugee community into the one that will enable them to be more economically productive and to have a stronger personal autonomy might be beneficial for both parties.

Also, worth to be noted that, while there was no specific literature found on the association between cultural dissimilarity with mental health issues in Syrian refugee children living in Lebanon and Jordan, we believe that further research on this matter will benefit these children on the long run. As, there is a high possibility of Syrian refugee families experiencing the same economy hardships and low education level in those developing countries.

5.2.2.2 Psychosocial Protective Factors

5.2.2.2.1 Microsystem Level

In this particular level of environment, strong and positive self-identity and perception towards religion were found to act as protective factors to prevent the development of mental health issues in Syrian refugee children living in Turkey. While family support during difficult times was found to act as a protective factor to prevent the development of mental health issues in Syrian refugee children living in Jordan.

In terms of strong and positive self-identity, it is known that self-identity that was derived from Syrian ethnic identity worked as a protective factor against the adverse mental health effects of perceived discrimination. Although the aforementioned study was conducted amongst Syrian adults, considering that most Syrian adults represented in the study were parents to children and adolescents, their ethnic identity can be an asset for families and children in the face of various risks and challenges. Thus, we assume that, for Syrian refugee children living in Turkey, having a strong and positive self-identity could act as a protective factor to prevent the development of mental health issues in them.

We also assume that, despite the fact that there was no specific literature found on the association between self-identity with mental health issues in the Syrian refugee children living in Lebanon and Jordan, this study can provide insight into the developmental processes of resilience in the case of Syrian refugee children living in there.

As for the strong and positive perception towards religion, a study in Syria and Turkey, where all participants were Muslim, found that the parents heavily relied on the religious coping mechanism to face the contextual challenges that they had in the camp. We assume that, even though the above-mentioned study had not sought to explore connections between different strategies, their exploration revealed religion as a clear common element between them. Religion, as a combination of both beliefs and the physical practices, had a significant effect on their lives which seemed to facilitate their other coping strategies. It

seems that having a religious background and growing up in religious societies, have made them perceived religious coping as a compelling and available resource and a helpful coping that connected their other coping strategies.

Unfortunately, another study has highlighted that Non-Governmental Organisations often did not have a clear set of interventions to address the spiritual needs of populations affected by emergencies. The finding of this study of religious coping has further supported the notion that faith can be an important resource for coping and aid in facilitating other coping strategies and should be incorporated into psychosocial programmes.

Also, worth to be noted that, while there was no specific literature found on the association between religion with mental health issues in Syrian refugee children living in Lebanon and Jordan, we believe that further research on this matter will be important. Especially, as we know that the majority of Syrian refugee population were identified as Muslim, which means that there is a high probability of Syrian refugee parents living in Lebanon and Jordan to have the same idea of faith with those who lived in Syria and Turkey, in terms of managing challenges and uncertainties in the refugee contexts.

In terms of family support, in Jordan, it is known that family support during difficult times served as a protective factor towards depression in Syrian refugee children. It is also known that, in Jordan, family support could significantly accelerate the healing time of these children's mental health issues.

Worth to be noted that, while there was no specific literature found on the association between family support with mental health issues in Syrian refugee children living in Turkey and Lebanon, we believe that further research on this matter is also important. Especially, as it is known that some of the Syrian refugee children living in these two countries were more vulnerable to get mental health issues due to the fact that their parents experienced mental health issues and practised negative parenting behaviours.

5.2.2.2.2 Mesosystem Level

Skills for adaptation, that can facilitate the refugee children's active role in negotiating the demands of both cultures during the adaption process, was considered as an essential protective factor to prevent the development of mental health issues in them.

In terms of Syrian refugee children living in Turkey, Lebanon, and Jordan, although both cultures were heterogeneous, some subcultures might not be so divergent. Making the Syrian refugee youth living in these countries might not be facing a dramatic challenge in meeting cultural discrepancies between their culture of origin and host culture.

Nevertheless, culture was known to be dynamically changing across time and context. Thus, while no specific literature was found on the negotiate skill for adaptation that may play as a protective factor in the Syrian refugee children living in the neighbouring countries; we believe that the skills to negotiate the demands of both cultures during the adaption process still need to be supported for these children, in order to protect them from getting mental issues due to a failed acculturation.

5.2.2.2.3 Exosystem Level

In this particular level of environment, ability to get and utilise social support was found as a protective factor to prevent the development of mental health issues in Syrian refugee children living in Turkey. This study revealed that the use of social dimensions by Syrian

refugee parents as a coping strategy was found to be beneficial, especially in dealing with stress and trauma.

Although the above-mentioned study was conducted on Syrian refugee parents, considering that parent management of challenges and uncertainties in refugee contexts affects both their own mental health and that of their children, their resiliency can be an asset for the development of a resilient children in the face of various risks in these contexts. Thus, the above-mentioned study showed us that, for Syrian refugee children living in Turkey, having a resilient parent who is able to get and utilise social support could act as a protective factor to prevent the development of mental health issues in these children.

We also assume that, despite the fact that there was no specific literature found on the association between the availability and the ability to get and utilise social support with mental health issues in the Syrian refugee children living in the Lebanon and Jordan, the above-mentioned study can provide insight into the developmental processes of resilience in the case of Syrian refugee children living in the other neighbouring countries.

5.2.2.2.4 Macrosystem Level

In this particular level of environment, close cultural distance was found to act as a protective factor to prevent the development of mental health issues in Syrian refugee children living in Turkey, Lebanon, and Jordan. While, similar religious system was found to act as a protective factor to prevent the development of mental health issues in Syrian refugee children living in Turkey.

In terms of close cultural distance, it is known that Turkey, Lebanon, and Jordan were likely had a narrow cultural distance with Syria. Thus, we assume that a narrow cultural distance between Syria and those countries served as a protective factor in reducing the occurrence, or perhaps the severity, of mental health issues in the Syrian refugee children living in those countries during the adaptation process.

As for the similar religious system, studies showed us that, for Syrian refugee children living in Turkey, the similarity in the belief system between the refugee and host community caused the religion-related acculturative stress appeared to be less likely to occur in them; and helped to decrease the cultural distance between the two parties, and therefore served as a protective factor in reducing the occurrence, or perhaps the severity, of mental health issues in these children during the adaptation process.

However, it should be noted that, there were different religions in Syria: apart from different Muslim groups (90%), there were also several Christian minorities, including Armenian Catholics, Greek Orthodox, Syriac Orthodox (10%), and a small Jewish community. These minority communities could feel that they had a high cultural distance with the host community in the neighbouring countries, which, in turn, might have hampered the adaptation process of the children in these communities, thereby made them at high risk to get mental health issues.

Thus, we assume that faith, next to possibly being a protective factor, could also be a risk factor for the non-Muslim Syrian refugee children to get mental health issues. And we believe that, further research on this matter will benefit these children on the long run.

5.2.3 Incorporating the Psychosocial Factors Findings on the Design and Implementation of Preventive Mental Health Interventions for Syrian Children Living in Turkey, Lebanon and Jordan: addressing research question 4

A study has found considerable evidence that refugee children were at high risk of developing mental health issues as they were subject to several psychosocial risk factors. This study is in line with the result of other studies which have stated that the burden of mental health issues in Syrian refugee children living in the neighbouring countries, including Turkey, Lebanon, and Jordan, was high.

On the other hand, it is also known that several protective factors were associated with the resilience developmental in refugee children. The information on the latter issue is important to inform the design of more appropriate and cost-effective preventive interventions in order to improve the mental health status of the Syrian refugee children living in the neighbouring countries, as most of these countries are part of the LMICs.

Looking at the findings of this study, it is known that there were some efforts paid to establish/re-establish the relevancy and applicability of mental health preventive intervention for refugee children living in the Syria's neighbouring countries. To date, those efforts mainly focused on the development of screening and measurement tools of trauma and mental health that is culturally and developmentally sensitive. While, for sure, this effort is essential in detecting and ameliorating refugee children's mental health issues adequately, we see that there were some contextual factors that play a pivotal role in Syrian refugee children's psychosocial adjustment that have not been addressed in those intervention programmes, such as: active participation of parents/caregivers and other family members and religion and spirituality integration.

In general, we can see that the above-mentioned mental health interventions for Syrian refugee children did not target parenting, family support, religion, and spirituality as critical predictors of child adjustment. And we see this phenomenon as a huge concern as it is known their role are paramount in supporting children's functioning during difficult times. We believe that developing and implementing effective mental health interventions to help parents/caregivers and other family members support their children effectively should be a priority for Syrian refugee children.

We also see the fact that mental health interventions with Syrian refugee children predominantly targeted school-age children, which means Syrian refugee children who were in early childhood or infancy were neglected, at a very foundational time of their development.

Also, worth to be noted that, while there was no specific literature found on the quality of preventive mental health intervention for Syrian refugee children in Lebanon, we believe that further research on this matter will benefit these children on the long run. Especially, since we know that, the Syrian refugee families living in Lebanon had been facing a more significant economic, legal, and security problems than Turkey and Jordan, thus made them more in need to have cost-effective preventive interventions that are contextual fit.

5.3 Study Limitation

Although we have gathered important findings on mental health issues and the related psychosocial protective and risk factors of Syrian refugee children living in Turkey, Lebanon, and Jordan, the results of this literature review should be viewed in light of several limitations:

1. We found a limited amount of study that was done in Lebanon and Jordan.
2. Most of the study participants that we found were Syrian refugee children who attended school. Which means, in many cases, Syrian refugee children who were in early childhood or infancy were neglected, at a very foundational time of their development; and those who could not attend school for various reasons, and were already susceptible to get mental health issues because of that, were also neglected.
3. Most of the study regarding Syrian refugee parents have had mother, instead of father, as their study participants. Which means that either we could have underestimated the role of father in the Syrian refugee children's psychological development; or the inability of the father to join the study, for various reasons, made it difficult for researchers to better understand the role of father in the Syrian refugee children's psychological development.

Chapter Six:
Conclusion and Recommendations

6.1 Conclusion

Overall, we concluded that mental health issues were extremely high in the Syrian refugee children population living in Turkey, Lebanon, and Jordan, compared to what would be expected from a normal population in those countries. Amongst the most frequent were depression, anxiety, and post-traumatic stress disorder, which were significantly interfering with these children's normal daily functioning. In addition, for most children, more than one of mental health issues were observed, suggesting that the Syrian refugee children's case in Turkey, Lebanon, and Jordan was highly contextual.

Given the above-mentioned magnitude of the crisis in Turkey, Lebanon, and Jordan; the fact that the civil war in Syrian has been raging on for nearly 12 years, with no end in sight; and the fact that donor fatigue phenomenon has been seen in those countries, we believe that developing and implementing more appropriate and cost-effective preventive interventions should be a priority for Syrian refugee children living in those countries. And we see that the information about the mental health resilience framework of those children, including the related risk and protective factors, that we brought up in this study is essential for the development and implementation such interventions.

Also, worth to be noted that, each of the psychosocial factors that are found in this study occurred at every ecological level. And, all of them, are interrelated with each other; some of them even interdependent on each other. Reflecting the complexity of the adaptation challenges that were faced by these children, which could make them more vulnerable to get mental health issues.

6.2 Recommendation

The recommendations derived from this review are presented to assist the government of Turkey, Lebanon, and Jordan and relevant Non-Governmental Organisations for best practices in addressing the mental health issues of Syrian refugee children living in those countries (See table 5).

Table 4. Recommendations for the Government of Turkey, Lebanon, and Jordan and Relevant Non-Governmental Organisations

Recommendation for the Government of Turkey, Lebanon, and Jordan	1. Developing a tailored education system for Syrian refugee children that will match their needs, by considering the possible language-related, psychological, and cultural problems these refugee children may face in the host country. 2. Developing an inclusive and efficient economic policy for Syrian refugee population.
Recommendation for Intervention (Applicable for Turkey, Lebanon, and Jordan)	1. Developing and implementing effective mental health interventions that is culturally and developmentally sensitive, inclusive (targeting children of all ages), involving the parents/caregivers and other family members, and integrating the concept of religious and spiritual coping. 2. Developing and implementing skills development programme to negotiate the demands of Syrian cultures and host countries' cultures during the adaption process.
Recommendation for Further Research	3. Conduct further research on the association between parental circumstances, that has not been explored before, and mental health issues in Syrian refugee children living in Jordan and Lebanon. 4. Conduct research on the association between self-efficacy and mental health issues in the Syrian refugee children living in Turkey and Lebanon. 5. Conduct research on the association between self-identity and mental health issues in the Syrian refugee children living in the Lebanon and Jordan. 6. Conduct research on the association between perception towards religion and mental health issues in Syrian refugee children living in Lebanon and Jordan. 7. Conduct research on the association between family support and mental health issues in Syrian refugee children living in Turkey and Lebanon. 8. Conduct research to find the root cause of the negative claims made by the native parents towards the Syrian refugee children living in Turkey, Lebanon, and Jordan, that might account for why these children faced discrimination. And then, conduct further research that focus on such

	connections and explore them deeper in order to adopt policies aimed at overcoming prejudices from the native community. 9. Conduct research on the association between the availability and the ability to get and utilise social support and mental health issues in the Syrian refugee children living in the Lebanon and Jordan. 10. 11. Conduct further research on the association between culture conflict within the microsystems of Syrian refugee children living in Turkey, Lebanon, and Jordan, and their mental health issues. 12. Conduct research on the association between cultural dissimilarity and mental health issues in Syrian refugee children living in Lebanon and Jordan. 13. Conduct research on the association between religion and religion-related acculturative stress and cultural distance in the Syrian refugee children living in Turkey, Lebanon, and Jordan, who come from religious minority communities. 14. Conduct research on the association between religion with mental health issues in the Syrian refugee children living in Turkey, Lebanon, and Jordan, who come from religious minority communities. 15. Conduct research on the quality of preventive mental health intervention for Syrian refugee children living in Lebanon.

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