ISTANBUL BILGI UNIVERSITY
INSTITUTE OF GRADUATE PROGRAMS
TRAUMA AND DISASTER MENTAL HEALTH MASTER'S DEGREE PROGRAM

POST-TRAUMATIC GROWTH AND RELATED FACTORS AMONG ADULT SYRIAN REFUGEES LIVING IN TURKEY

Sena Akbay Safi

118507008

Prof. Dr. Zeynep ŞİMŞEK

ISTANBUL
2021

Post-Traumatic Growth and Related Factors Among Adult Syrian Refugees Living in Turkey

Türkiye'deki Yetişkin Suriyeli Mültecilerde Travma Sonrası Büyüme ve İlişkili Faktörler

Sena Akbay Safi
118507008

Tez Danışmanı : Prof. Dr. Zeynep Şimşek (İmza) .....

İstanbul Bilgi Üniversitesi

Jüri Üyeleri : Prof. Dr. A. Tamer Aker (İmza) .....

İstanbul Bilgi Üniversitesi

Juri Üyesi: Prof. Dr. Önder Kavakçı (İmza) .....

İstanbul Kültür Üniversitesi

Tezin Onaylandığı Tarih : 28/04/2021
Toplam Sayfa Sayısı: .....

Anahtar Kelimeler (Türkçe)

1) Travmatik Deneyimler
2) Psikolojik Travma
3) Travma Sonrası Büyüme
4) Mülteci Ruh Sağlığı
5) Çatışma

Anahtar Kelimeler (İngilizce)

1) Traumatic Experiences
2) Psychological Trauma
3) Post-traumatic Growth
4) Refugee Mental Health
5) Conflict

ACKNOWLEDGEMENT

I would like to first thank my supervisor Prof. Dr. Zeynep ŞİMŞEK, whose expertise was invaluable in formulating my research questions and methodology. I will always be grateful for the sincere support that you have provided me through my journey to complete this work and reach this phase, where I have obtained a rich knowledge with your guidance.

I would also like to present my appreciation to my mentor Dr. Fazilet YAVUZ BİRBEN, both for her academic and emotional support pushing me to excel my work by always providing me the most delicate tips to improve my dissertation.

The support of BAB-I IHSAN Organization and my colleagues, who helped me to reach the target population of my study has been very important for this dissertation, where I feel the need to acknowledge their contributions.

I would also like to express my deepest gratitude for my dear husband Ömer SAFİ for his technical support helping me to translate the questions in a culturally sensitive format, preparing the questionnaire forms and supporting me both physically and emotionally while collecting the data. In addition to his intellectually stimulating discussion that helped me to sharpen my thoughts and analyze my data. I could not have completed this dissertation without your support.

In addition, I would like to thank my parents, my sister and my dearie son for their sympathetic ear. You are always there for me, giving me the motivation to work harder to be able to contribute to the literature with good work.

I would also like to acknowledge my emotional sister Gamze PEKER GÖRÜR's crucial role, who provided me with the right circumstances and the work environment to be able to focus and give this dissertation the needed time and effort that it deserves.

Finally, I would like to extend my appreciation for the Syrian residents of Turkey who gave their time to answer the questions, which constituted the basis of my analysis.

TABLE OF CONTENTS

ACKNOWLEDGEMENT iii
GLOSSARY OF TERMS vi
LIST OF FIGURES vii
LIST OF TABLES viii
ABSTRACT ix
ÖZET xi
INTRODUCTION 1
CHAPTER ONE 3
POST-TRAUMATIC GROWTH 3
1.1. Epidemiology of Mental Health Among Trauma Survivors Aftermath of a Conflict 3
1.2. Background of PTG 8
1.2.1. The Concept of Post-traumatic Growth 8
1.2.2. The Historical Background of PTG 9
1.3. The Theoretical Background of Growth 11
1.3.1. Models of Intentional Changes 11
1.3.2. Models of Unintentional Changes 12
1.4. DOMAINS OF GROWTH 15
1.4.1. Relating to Others - More Meaningful Interpersonal Relationships 16
1.4.2. Personal Strengths - An Increased Sense of Personal Strength 17
1.4.3. Appreciation of Life and Changed Priorities 19
1.4.4. New Possibilities 20
1.4.5. A Richer Existential and Spiritual Life 20
1.5. Resilience, Coping AND PTG 21
CHAPTER TWO 24
METHODOLOGY 24
2.1. Study Design 24
2.2. Study Population and Sample 24
2.3. Instruments 24
2.3.1. Sociodemographic Information Form 24
2.3.2. Post-traumatic Growth Inventory 25
2.3.3. General Self Efficacy Scale 26
2.3.4. PTSD Checklist PCL-5 26
2.3.5. Brief COPE 27

2.3.6. Strengths 27
2.4. Procedure 27
2.5. Statistical Analysis 28
CHAPTER THREE 29
RESULTS 29
3.1. Descriptive Statistics 29
3.1.1 Sociodemographic Characteristics of The Participants 29
3.1.2. Mean, Standard Deviations and Range of PTG Domains 30
3.1.3. Traumatic Experiences of the Participants 31
3.1.4 Perceived Social Support 34
3.1.5 Cultural Perception and Adaptation of the Participants 34
3.2 BIVARIATE ANALYSIS 35
3.2.1. Relationship Between PTGI Sub-Category Scores and Socio-Demographics 35
3.2.2. The Relationship Between the Sub-categories of PTGI and Traumatic Experiences 38
3.2.3. The relationship between the domains of PTG and social support, PCL, GSES and COPE 40
3.3 Multivariate Analysis 42
3.3.1. Results of Multiple Regression Analysis 42
CHAPTER FOUR 46
DISCUSSION AND CONCLUSION 46
4.1. Discussion and conclusion 46
4.2. Limitations of the study 55
4.3. Implications and future directions 55
REFERENCES 58
ANNEX 79
Annex 1: Informed Consent Form 79
Annex 2: Socio-Demographic Information Form 81
Annex 3: Post-traumatic Growth Inventory 86
Annex 4: PTSD Checklist PCL-5 88
Annex 5: Brief COPE 90
Annex 6: General Self-Efficacy Scale (GSES) 92
Annex 7: Strengths 94
Annex 8: ETHICS APPROVAL 95

GLOSSARY OF TERMS

APA: American Psychological Association

DSM: Diagnostic and Statistical Manual of Mental Disorders

GSES: General Self Efficacy Scale

IDP: Internally Displaced Person

PCL-5: Post-traumatic Stress Disorder Checklist -5

PTG: Post-traumatic Growth

PTGI: Post-traumatic Growth Inventory

PTSD: Post-traumatic Stress Disorder

SPSS: Statistical Package for the Social Sciences

UNHCR: the United Nations High Commissioner for Refugees

WHO: World Health Organization

LIST OF FIGURES

Figure 3.1.3. Strength Points in the Survivors' Life to Overcome the Traumatic Experiences

Figure 3.1.4 Social Support Resources of the Participants

Figure 3.1.5 Cultural Perception of the Participants

LIST OF TABLES

Table 3.1.1: Sociodemographic Characteristics of the Participants

Table 3.1.2. Mean, Standard Deviations and Range of the Subscales of PTGI

Table 3.1.3 Traumatic Event Experiences of the Participants

Table 3.2.1 Relationship Between PTGI Sub-category Scores and Socio-demographics

Table 3.2.2. The Relationship Between the Sub-categories of PTG and Traumatic Experiences

Table 3.2.3. The Relationship Between the Domains of PTG and Social Support, PCL, GSES and COPE

Table 3.3.1. Results of Multiple Regression of PTG Subscales

ABSTRACT

As Syrian crisis has reached its 10th year, this paper explores the post traumatic growth and the related factors among Syrian refugees living in Turkey, with the aim of having a better understanding of the predictors of PTG and the risk factors that may play a role in the inhibition of the growth.

In this cross-sectional study, we calculated that the needed sample size was 275 people, taking the sampling error to be 5.0%, with a two-sided test, 95% confidence level, power of 80%. The response rate was 78.9 %. Approval for this study was provided by the İstanbul Bilgi University Research Ethics Board. Post Traumatic Growth Inventory (PTGI), Harvard Trauma Questionnaire (HTQ), Brief COPE, General Self-Efficacy Scale(GSES), PTSD Checklist for DSM-5 (PCL-5), and sociodemographic information form were used for data collection by a self-reported online survey. Bivariate associations were estimated using chi-square tests, t-test, correlation or analyses of variance depending on variable types. Risk factors and predicting factors associated with any of the outcomes of interest and covariates associated with both risk factors and outcomes at $P < 0.05$ were retained in multiple regression models to examine the relationships between the independent and the control of the confounding factors. The fit of model was tested using the Durbin-Watson goodness-of-fit test.

Of the 217 displaced Syrian refugees completed the questionnaires, the mean age was 32.6 ± 9.4 years ranged from 18 to 88. Growth was found to be highest in the personal strengths and new possibilities domain of growth and the results indicated that protective factors that predicted the growth significantly were the consistency between the person's work with their education, economic status of the participant, education level, number of children, self-efficacy, level of the Turkish, active coping style, religious coping and self-distraction ($P<0.05$). Risk factors were number of traumatic events, and the PTSD symptoms the person has been displaying and self-blame as a coping ($P<0.05$). Whereas no significant relationship was found for the variables of marital status, taking support, self-distraction,

emotional and instrumental support, positive reframing, planning, cultural perception, working type and age (P>0.05).

In conclusion, the findings have provided a valuable insight for the domains of the growth among Syrian refugees and discussed both clinical and research based future recommendations that could be done to improve the mental health of the refugees based on the obtained results.

Keywords: *Traumatic Experiences, Psychological Trauma, Post-traumatic Growth, Refugee Mental Health, Conflict.*

ÖZET

Bu çalışmanın amacı, Suriye krizinin 10. yılına ulaştığı bu dönemde, yetişkin Suriyeli mültecilerde travma sonrası büyümeyi anlamak ve ilişkili faktörleri belirlemek amacıyla yapılmıştır.

Kesitsel tipteki bu araştırmada, çift yönlü test ile, %95 güven aralığı, 80% güç ve %0.05 hata payı esas alınarak 275 kişiye erişilmesi planlanmıştır. Yanıt verme hızı 78.9%'dur. Bu çalışmanın etik onayı İstanbul Bilgi Üniversitesi Araştırma Etik Kurulu tarafından verilmiştir. Online özbildirim ile, Travma Sonrası Büyüme Enventeri (PTGI), Harvard Travma Enventeri (HTQ), Kısa COPE, Genel Öz-Yeterlik Ölçeği (GSES), Post-travmatik stres bozukluğu kontrol listesi (PCL-5) ve sosyodemografik bilgi formu kullanılmıştır. Bağımlı ve bağımsız değişkenler arasındaki ilişkiyi daha iyi anlayabilmek ve karıştırıcı faktörleri kontrol edebilmek için, ikili analizlerde $P<0.05$ seviyesinde ilişkili bulunan değişkenler çoklu regresyon analizine dahil edilmiştir. Modelin uygunluğu, Durbin-Watson uyum iyiliği ölçütü kullanılarak test edilmiştir.

Toplam 217 Suriyeli mültecinin yaşları 18 ile 88 arasında değişmiş olup, yaş ortalaması 32.6 ± 9.4'dür. Büyüme en yoğun olarak bireysel güç ve yeni fırsatlar alanında saptanmıştır. Araştırmanın sonucuna göre büyümeyi $P<0.05$ düzeyinde anlamlı olarak açıklayan koruyucu faktörlerin; kişinin eğitim düzeyiyle yaptığı işin uyumlu olması, ekonomik durumu, eğitim düzeyi, çocuk sayısı, öz yeterliliği, Türkçe bilme düzeyi ve aktif, dini başa çıkma biçimi olduğu, TSSB semptomları ve kendini suçlama davranışının ise risk faktörleri olduğu belirlendi ($P <0.05$). Medeni durum, sosyal destek alma, kültürel algı, çalışma türü, yaş ve başa çıkma stili olarak dikkat dağıtma, duygusal ve araçsal destek, olumlu yeniden çerçeveleme ve planlama değişkenleri arasında anlamlı bir ilişki bulunmamıştır ($P> 0.05$).

Sonuç olarak, bulgular Suriyeli mültecilerdeki büyüme alanlarına ilişkin değerli bilgiler sunmuş ve elde edilen sonuçlara göre mültecilerin ruh sağlığını iyileştirmek için hem klinik hem de topluma dayalı çalışmalarda yol gösterici olabilecek değişkenleri tartışmıştır.

Anahtar Kelimeler: *Travmatik Deneyimler, Psikolojik Travma, Travma Sonrası Büyüme, Mülteci Ruh Sağlığı, Çatışma.*

INTRODUCTION

Disastrous events affecting the people either on societal level such as natural disasters, conflicts, wars, massacres, human right violation, forced displacements or on an individual level such as domestic violence, abuses, sexual assaults, and many other traumatic events have become a major part of today's life. Studies show that around 70% of the population is being exposed to at least one traumatic event in their lifetime, where in some cases the number of the traumatic events are higher (Alonso et all., 2002; Kessler et all, 2017). These high numbers are suggesting the inevitability of exposure to a traumatic event for most individuals. Although that every individual in the society, with no exception carries the possibility of experiencing a trauma in their lifetime, studies show that some groups are known to be more vulnerable than others (Edwards, Sakasa & Van Wyk, 2005; Swart, 2010).

According to the numbers announced by the UN Refugee Agency UNHCR, the number of forcefully displaced people around the world has reached 70.8 million (2020), making them the largest vulnerable group towards traumatic events, due to a prolonged exposure to multiple traumas starting before the refuge process with the difficult life circumstances in their homelands, threats to their lives or to the life of their loved ones, experiencing torture, violence and violations of human rights, followed by difficulties in the host country such as discrimination, lack of legal recognition, difficulties in communication and many other types of traumatic events (Schick et all., 2018).

The prevalence of mental disorders in the refugee populations ranges between 20% to 80% of the whole population, mostly including depressions, PTSD and anxiety. The symptoms of these disorders show reduction in time in accordance with the life circumstances that the refugee has in the host country (Oppedal & Idsoe, 2015; Betancourt et al, 2013; Beiser & Wickrama, 2004; Sack, Him & Dickason, 1999). An interesting finding emphasizing especially on the importance of the post-migration factors, have shown that in the case of the Syrian refugees, the prevalence of mental health disorders was higher among the refugees in Turkey compared to the internally displaced ones (Tekeli-Yesil, et al., 2018).

However, studies indicate that not every refugee is developing a mental disorder to the same degree. In fact, some of them even show growth. It seems that many factors are contributing to the consequences that come to the lives of the survivors with this highly stressful event, creating a distinct fraction point in their lifetime dividing it as "before the event" and "after". (Amer & Awad, 2015). It is important to highlight that the negative outcomes of the trauma can never be ignored. Yet, beside the negative outcomes of the trauma, it is also crucial to pay a special attention to the positive side that accompanies the traumas consequences, which is defined as post-traumatic growth (PTG) in the psychology literature and described as the "*positive changes that can arise from the challenge of difficult circumstances"* (Tedeschi & Calhoun, 2004). Therefore, it is important to explore and understand the factors associated with the occurrence of the growth, to be able to create the right circumstances which will lead to it.

Taking into account that Syrian Refugees are the most recent example of a refugee crisis and suffering the world have witnessed, where 6,6 million people are internally displaced and 5.6 million have migrated fleeing for their lives to the neighboring countries such as Lebanon, Jordan and Turkey which ranks on the top of the list with the highest number of Syrian refugees reaching 3.6, this study is focusing on exploring PTG and the related factors among the Adult Syrian Refugees living in Turkey (UNHCR, 2018).

CHAPTER ONE

POST-TRAUMATIC GROWTH

1.1. Epidemiology of Mental Health Among Trauma Survivors Aftermath of a Conflict

Traumatic events are unexpected incidents that are causing physical or emotional harm. As it is defined in DSM-5, traumatic events are that has "actual or threatened death, serious injury, or sexual violence" (5th ed.; DSM-5; American Psychiatric Association, p.271). These experiences could differ in their types, while some of these experiences are individual based, others are mass incidents that affects the whole society; some of the survivors experience the event directly and some experience it through witnessing it happening to someone and feel the extended fear expecting their turn; some traumas happen only a single time in a life time and some has a prolonged exposure period (Swart, 2010, p.47-53). The type of the events people is exposed varies. Yet, the data obtained on this field indicates that five main types of traumatic events are considered to be the most common traumatic events, composing around half of the exposures; witnessing death or serious injury, the unexpected death of a loved one, being mugged, being in a life-threatening automobile accident, and experiencing a life-threatening illness or injury (Benjet et al., 2016).

The percentages of being exposed to a traumatic event is considered to be a very high rate. The lifetime prevalence of being exposed to a highly traumatic event ranges from 50 to 80 percent in national samples of the general adult population of many countries (Knipscheer, et al., 2020; Kessler, et al., 2017). As an example, an epidemiologic study with a sample of 68 894 adult from 24 countries across six continents assessing 29 type of traumatic events found that 70 percent of the respondents have experienced at least one traumatic event in their lives, while around 30.5 percent of them have experienced four or more (Benjet et al., 2016). Similarly, community surveys in the U.S are suggesting that experiencing a traumatic event in a lifetime ranges from 50 to 85 percent (Alonso et al.,

2002). Recent community studies shows that the exposure rates could vary in relation to the settings where the trauma happens. As such, some findings indicate that exposure rates are higher in low-income countries compared to the high-income countries (Atwoli et al, 2015).

Conflict areas are also known to be one of the major settings, where many of the potential traumatic events could occur either independently or simultaneously. Additionally, studies shows that both the exposure rate and the prevalence of PTSD is higher in conflict survivors compared to any other setting (Atwoli et al, 2015). The importance of this particular context goes back to early times of the trauma history. Due to its nonnegligible consequences that reflected to a whole nation, a war was the trigger that started the second wave that brought the world's attention back to the importance of traumas (Herman, 2015, p.7-32).

In conflict areas traumatic events such as bombing, mass massacres, gas bombs, chemical attacks, kidnappings, torture, rape, detentions, blockades and many other traumatic events are common (IHH Suriye Raporu, 2017). Most of these inhumane events are the result of a systematic violence policy of the sides as an instrument of spreading terror among the civilians; as the case was in Bosnian war, where the Serbian soldiers were raping Bosnian women to terrorize them and implement ethnic cleansing. The number of the raped women during the war ranged between 10,000 to 50,000 women (Jeffrey & Jakala, 2012; cited in Olujić, 1998). Or, as the case in the blockade of Gaza since 2007, not allowing for any basic human necessities or even medical aid to reach the area (Euro-Med Monitor, 2021). Similarly, the imposed siege to eastern Ghouta in 2016, trapping 400,000 over an area of 100 square kilometers with no sufficient food supplies (Rollings, 2016). Another example is the Rohingya genocide that has been happening since 2016, where the civilians are being killed, perpetrated to gang rapes and other forms of sexual violence, being beaten and thrown into fires (Haar et al, 2019). The Abu-Guraib prison tortures, which took place in the early stages of the Iraqi war was another form of systematic both physical and psychological weapon to cause permanent psychological damage in the detainees (Keller, 2006). Chemical attacks that has happened in Aleppo, which caused permanent damage even in the offspring of those who were exposed to it is also an example of such terror policy (IHH Suriye Raporu, 2017).

In addition to these systematic intentional violent acts that are conducted with an agenda, wars also include some events that are not directed to a specific target, yet it has many casualties. These events include the general bombing of the area, or the disappearance of some individuals for being caught up in between fire, loosing legal status, financial difficulties, lack of basic human needs such as food, hygiene and medical needs (Francesh, 2008). Although these events are highly challenging for the human mind to comprehend and make sense of all what is happening within their existing understanding of the world, the conflict is usually only the starting point for a series of difficulties that the survivors is yet to face.

The person might be exposed to a conflict in a place other than his own country, like soldiers who are exposed to traumatic events during the combats or the exposure could happen in conflict occurring in the home of the survivor. In both cases, the challenges are equally difficult (Herman, 2015, p.7-32). If the conflict was in the individual's current settlement areas, then in most cases it results with a migration. According to the reports published by UN, around 65 million people are displaced due to wars and persecution. While some of these displacements are internal, a great percentage of it usually migrations for seeking a safer place outside the country (UNHCR, 2017). Migration in general contains all kind of population movements including economic migrations, refugee and asylum seekers and this process of movement is challenging for all kinds of migrant, because it means leaving home and loved ones most of the time and trying to adapt to a new society and a culture. However, the situation seems to be particularly difficult for the refugees who have escaped their home country seeking for a safe place, due to a war, discrimination, natural disasters or an armed conflict. Often, the journey is long with many unexpected circumstances and full of ambiguities (international organization of migration, 2018; cited in WHO, 2018). After reaching the host country, a new phase of adapting to the new environment and culture begins. This adaptation phase is usually quite challenging, especially due to the many differences between the home and the host country in terms of the cultural customs and the spoken language. In addition to the ambiguity of their fate and the fate of their loved ones that comes with the legal obligations and the requirement of the host country and the conflict circumstances of the hometown. This ambiguity is valid for any case whether they have migrated together or alone. Also, the duration of their staying,

the limited rights given to them and the risk of being deported are possible stressors that comes along with the migration. Such ambiguity often accompanied with worries about what the future might bring and the feeling of not having the control over one's own life (Parlimentary Assembly, 2015; cited in WHO, 2018). Considering that the sense of control is the first and the most important thing a trauma survivor loses, this process of seeking refuge in a foreign country full of uncertainties can be very difficult and damaging.

The whole process from the moment of the first traumatic events and afterwards is challenging for the survivor; because the one common point among all the traumas is that the incident is highly challenging for the survivor's cognition to make sense of it within their existing cognitive structures and world vision. Herman describes these traumatic events as being extraordinary for challenging the ordinary belief system of feeling of control, connection and meaning about the world. The normal reaction a person is programmed to present in the time of a danger is to either fight, flight or freeze to ensure its survival. However, when the situation is so overwhelming, the normal human system of self-defense becomes disorganized, *"producing profound and lasting changes in physiological arousal, emotion, cognition and the memory"* of the survivor (Herman, 2015, p.33-35)

After being encountered by many stressful events, a need for a psychological support may arise. The studies shows that the prevalence of mental disorders (depression, anxiety, post-traumatic stress disorder, bipolar disorder, and schizophrenia) at any point in time in the conflict effected populations is 22.1%. Additionally, Age-standardized prevalence for depression, post-traumatic stress disorder, and anxiety disorders was elevated in conflict affected populations compared with global mean prevalence for depression, for post-traumatic stress disorder for any anxiety disorders (Charlson et al., 2019). Research on the psychological wellbeing of the refugees and the prevalence of mental disorders show that although the rates vary widely between 20% and 80% in the whole population, specifically focusing on three disorder; anxiety, PTSD and depression, the general prevalence indicates that one in every three refugee or asylum seeker is experiencing high rates of the aforementioned disorders (APA, 2018). Although, most of these refugees and asylum seekers who are struggling with depression and PTSD shows a reduction in the symptom over a time, specifically for the ones who are living in conditions where the stressors are

lower than others, others may keep experiencing PTSD symptoms for many years (Oppedal & Idsoe, 2015; Betancourt et al, 2013; Beiser & Wickrama, 2004; Sack, Him & Dickason, 1999).

In most cases, access to mental health services is nearly impossible. Some common examples for the barriers that prevents the refugees from being able to access the mental health services include language barrier, lacking sufficient information about where and how to reach the service, restricting legal requirements, limiting free service options, different medical and psychological treatment approaches. The ability to communicate and express problems and needs of the person could vary from one to another depending on their education level (Lindert et al, 2008; Priebe et al., 2013; Giacco & Priebe, 2018; cited in WHO, 2018). Especially the irregular migrant who are not legally present in the country could have the most difficulty for not being able to access free care, in addition to their fear to be deported if they go to a facility seeking for help (Priebe, Giacco & El-Nagib, 2016; cited in WHO, 2018). On the other hand, despite the high number of exposure rate, studies are indicating that not all of the exposed people to highly stressful events end up developing mental disorders (Alonso et al., 2002). In contrary, studies show the range of PTG after being exposed to a traumatic event could vary between 10% to 77.3% (Wu, et al, 2019). Although the concept of PTG is relatively novel in the psychology literature, which came to existence not more than 30 years ago, it has a rich growing literature exploring different aspect of the phenomenon to understand the factors that could either facilitate or inhibit the process of a growth aftermath of a traumatic event. According to the review of Linley and Joseph (2004), growth is associated with many factors related to the internal individual and external traumatic event related factors. It is possible to analyze them in three major categories of pre-trauma, within trauma and post-trauma conditions.

First, the pre-trauma conditions include the survivor's socio-demographic factors; such as age, gender, marital status, economic status. In addition to some individual factors like their personality traits (Akinci, et al., 2012), self-efficacy (Byra & Ćwirynkało, 2020), their prior trauma experience and their preparedness (Başoğlu, et al. 1997). Many studies have been conducted to explore the nature of the relationship of these factors with trauma and PTG, while the results indicated in some cases that it plays a mediating role, in others showing that it has direct effect.

Second, within trauma conditions include all the factors related to the trauma itself or the circumstances while the traumatic event has occurred. Studies on the relationship of trauma type with the development of PTG, show that post traumatic growth can occur in all types of traumas. Some examples for these trauma types that can be found in the literature include health problems such as cancer, heart attacks, brain injuries, limp loss (Leung et all., 2012; Bostock, Sheikh & Barton, 2009), transportation accidents such as car accidents, plane crashes (Wu et al., 2016), natural disasters such as hurricanes, floods, earthquakes (Bernstein & Pfefferbaum, 2018), and interpersonal experiences such as rape, sexual assaults, combat, child abuse (Barlow & Hetzel-Riggin, 2018). Third, the post trauma factors include the factors that comes to the survivor's life after the traumatic experience, such as the social and emotional support the person receives or the psychological or physical changes that happens in their bodies. Additionally, the environmental factors that comes after the trauma and the changes in life routine is also included in this category.

Although that the factors affecting the process of PTG is categorized under these three main titles, it is important to be aware that this categorization is merely a way to organize the studies to have a deeper understanding of the dynamics between all the factors leading to the development of PTG and does not mean a total separation. In contrary, all factors are interrelated.

1.2. Background of PTG

1.2.1. The Concept of Post-traumatic Growth

This period aftermath of the trauma is usually recognized with its negative aspects, mostly focused on the psychological disorders or the symptoms of them. Yet, there are many studies showing the possibility of a positive change in the person's life that is triggered by the traumatic event and what comes afterwards (Calhoun & Tedeschi, 2006). The shattered assumptions have to be changed in a way that the person can grow to reach the new situation where they can form the equilibrium (Janoff-Bulman, 2010, p.69). This process of change is called Post-traumatic growth and defined as a "*positive psychological change experienced as a result of the struggle with highly challenging life circumstances" (*Calhoun & Tedeschi, 2004).

A crucial point to be taken into account while studying PTG in the psychology literature, that there is a strong emphasis on the idea that the traumatic events should not be simply perceived as precursors to growth. Instead, it should be studied in a broader sense understanding that difficult life experiences can cause distress and negative responses; however, the psychological processes which are involved in managing the difficulties are the same ones which are creating the growth (Tedeschi and Calhoun, 2004). In fact, many studies show that negative impacts of the traumatic event and the PTG could coexist simultaneously or independently (Sleijpen et all., 2016; Rizkalla & Segal, 2018; Shakespeare-Finch & Lurie-Beck, 2014).

1.2.2. The Historical Background of PTG

Post traumatic Growth's philosophy and fundamentals goes back to very ancient times and it is a concept that exists in many religions as well. The Islamic worldview comprehends the idea that "*Allah does not burden a soul beyond that it can bear*" (Qur'an, 2:286) and that "*Surely with hardship comes ease"* (Quran; 94:5). Many stories of different prophets and messenger of Allah has been mentioned in Qur'an explaining the ways they used to overcome the difficulties and reach the righteous path. Similarly, the prophet stories in addition to the stories of wise men who knew how to turn the difficulties into blessings have many sections in the Christian and Jewish texts as well. The religions of far east such as the Buddhism, Hinduism, Confucianism and Taoism also includes the idea that the path for awakening and self-peace goes through hardships and the struggles to overcome them.

Thinkers such as Nietzsche who is known with his saying "*what doesn't kill you makes you stronger*" (2005) and Lucius Annaeus Seneca the Young who said "*Difficulties strengthen the mind, as labor does the body*" are among the ones who believed in the role of the challenges the person encounter and that it could enhance the person's mental strength.

A mutual focal point for all, is the idea of the attributed meaning. As Maslow's claim that the person's highest need in the hierarchy of needs triangle is self-actualization and the need for a meaning (1943). Based on the same rationale, famous psychiatrist Viktor Frankl, who is known with "*the man's search for ultimate meaning*" have stated that when there is

an imposed meaning for incident, the suffering and the negative consequences of it is reduced (2011).

The notion of a positive change through struggles has been a theme that many thinkers, philosophers and wise men have used in their lives and wrote about it in their works. However, despite its long history, is has not been studied and operationalized in the psychology literature until a very recent history. Specifically, the scholarly interest in this field and the possibility of a positive outcome after a traumatic even has increased with the positive improvements that the trauma survivors have reported (Werdel & Wicks, 2012).

During the study of the growth, there has been many names to define the phenomenon. Some examples for the names are stress-related growth (Park, Cohen, & Murch, 1996), 'flourishing' (M.E. P. Seligman, 2012), thriving (Abraido-Lanza, Guier, & Colon, 1998), growth through adversity or adversarial growth' (Linley & Joseph, 2004), positive changes in outlook (Joseph, Williams, & Yule, 1993), perceived benefits (McMillen & Fisher, 1998), 'benefit-finding' (Tennen & Affleck, 1996) and positive by products (McMillen, 11 Howard, Nower, & Chung, 2001).

However, "Post-traumatic Growth" became the most widely used term, which was introduced by Tedeschi and Calhoun in 1995, becoming the father and the leading names of the studies of this field (Tedescie et al., 1998). The studies on the concept of PTG was inspired by O'leary and Ickovics work on thriving, focusing on the strengths and the abilities of survivors to thrive (O'leary & Ickovics, 1995; as cited in Martin, 2018). Following their first work, they initiated a new stream on the positive psychology field, leading the way for further studies on the nature of the PTG, the theories on the processes of PTG and influencing factors.

1.3. The Theoretical Background of Growth

There are many suggested models that can be used to understand the theoretical background of how the growth happens within the complex cognitive processes of the mind. According to Tedechie and his colleagues categorization, these models are divided under two main title; intentional changes and unintentional changes (Calhoun & Tedeschi, 2013).

1.3.1. Models of Intentional Changes

1.3.1.1. Mahoney's Model of Human Change Process

One of the early studies in this field was Mahoney's model of human change process, proposing the idea that individual's initial state is "status quo", stable and with no change on a specific level. Then, the occurrence of a change is initiated by a psychological disequilibrium, which may bring the person to the initial point of "satus quo" or it might lead to a new status of restructuring. In this phase of restructuring, with the intervention of the right factors, the person may create a new healthier synthesis that is not static but open to further development (Mahoney, 1982; as cited in Tedescie et al., 1998, p.130).

1.3.1.2. Hager's Model of Change

Similar to Mahoney's model (1982), Hager's model of change focuses on the idea that the period of confusion or disorganization are the indicators of the transitional process where the person is caught between the possible alternative. He emphasized on the idea that these periods are like gestational process, which are different than the resistance or regression process patients may face in the clinical practice (Hager, 1992; as cited in Tedescieet al., 1998. p.131).

1.3.1.3. Nerken's Model of Growth

Another model is Nerken's Model of Growth, which is more specific to the growth that comes after a loss of a loved one and this growth happens in the period of grief. According to this model, the self is composed of two sides; the core self and the reflective self, believing that the self is the main agent that makes the change. The core self is the individual side of the person and also known as the identity. It includes the ideas, talents, dreams and purposes. On the other hand, the reflective self is the side of the person which has the attribution of a meaning to things; perception, interpretation, evaluations and attitudes. The reflective self is functioning through their ties to their loved ones; therefore, when the person experiences a loss, their reflective selves get damaged. If they manage to adapt to the new reality, their positive attributions which once existed through their loved ones, becomes able to exist independently, leading to a deeper reflective self. (Nerken, 1993; as cited in Tedeschie et al, 1998. p.131).

1.3.2. Models of Unintentional Changes

1.3.2.1. Cognitive Reconstruction Model of PTG

Cognitive restructuring model was used for the base of creating this model. This model suggests that when the individual experiences a traumatic event, their taken for granted schemas are challenged, shaken and maybe destroyed. However, through the process of coping with the traumatic reality, these schemas are changed or reshape. The core idea of the model benefits also from Janoff-Bullman's theory of shattered assumptions. According to the theory, trauma is shattering the basic assumptions of the person about the predictability, controllability and the safety of the world, leading to a phase where the person struggles to re-establish some of the assumptions about the world. This process of accommodating the new traumatic reality into their cognitive schemas is a highly stressful process, where the person keeps ruminating about the unexpected nature of the event, trying to fit it into a cognitively acceptable schema (Taylor, 1983).

Calhoun and Tedeschi suggests that this process where the survivor is trying to reshape and accommodate the traumatic reality into their cognitive basic assumptions is the process of posttraumatic growth. Through this process, the person starts to find an understandable world, where they can re-establish their perception of themselves and the world they live in. (Calhoun & Tedeschi, 2006).

Additionally, the cognitive reconstruction model includes the importance of the influential factors such as the coping mechanisms, the perceived social support and the individual factors in the process of growth.

1.3.2.2. Conceptual Model for Understanding Life Crises and Transitions

This model, similar to others, suggests that life crises are leading to growth through their enhancements of the survivor's adaptation skills. Schaefer and Moos describe the process of growth as transitional experience, which is influenced by two main systems; the personal system and the environmental system. The personal system includes the cognitive ability, health, motivation, self-efficacy, self-reliance, self-control and prior experiences. While on the other hand, the environmental factors, include, the financial status, social support, and life transitions. The theory says that all the factors, which are related to the events or the person during the event, are influencing the whole system of appraising and coping mechanisms of the survivor, consequently influencing the results. These systems are working through feedback loops where each is taking a role as an influencer and being influenced by the others (Schaefer & Moos, 1998; as cited in Tedescie et al., 1998. p.132-133)

1.3.2.3. Affective-Cognitive Processing Model of PTG

This model can be taken as the one step further version of Organismic Valuing theory (2005) of growth which is developed by Linley and Joseph (Yılmaz, 2014). The OV theory suggests that the individual has an intrinsic motivation for a growth after a traumatic experience. After the trauma, a state of avoidance and intrusion comes in the period of

cognitive-emotional processing of the challenging event. According to this theory, there are three possible states a person can reach as a result of this processing; assimilation, negative accommodation or positive accommodation. Therefore, the person automatically will be directed to the actualization state. (Joseph & Linley, 2005). Although this shift towards the growth seems to be the common state, there is an emphasis by the founders of this theory on the role of the environmental factors which directs the growth towards a specific direction (Joseph & Linley, 2005; as cited in Yılmaz, 2014).

This model's core idea is its focus on the determining role of the traumatic experience for the development of growth through the creation of cognitive processing such as rumination and intrusive thought. Despite the common idea on the negative aspect of these symptoms which are known to occur after the traumatic event, there are some empirical evidences supporting a contradictory result. Therefore, this model emphasizes on the notion that these processes that comes along with the trauma are crucial for the existence of a growth. Yet the most important aspect that needs to be studied is the amount of the stress caused by the traumatic experience; very low levels not triggering the growth, very high levels misfunctioning the person to do the needed cognitive work to be able to grow, while the moderate level of growth seems to be the needed amount for the process to begin (Joseph & Linley, 2005; as cited in Yılmaz, 2014).

1.3.2.4. Quantum Change

The Quantum change is defined as "*sudden, dramatic, and enduring transformations that affect a broad range of personal emotion, cognition, and behavior"* (Miller, 2004), meaning that the unexpected deviations that happens in individual's lives leads to permanent comprehensive changes in them. What differentiates this model from the others is that it focuses on the process of change rather than result that the person reaches to. According to Miller, the quantum change has two types; *"a dramatic, mystical experience and a sudden insight or sense of finding one's truth"* the mutual point both of the types have is that they are subconscious process that does not happen with the conscious decision of the person. (Miller, 2004). The model suggests that through one of these two pathways,

a process of change begins, taking the person towards self-actualization; changing the way how the person is perceiving him/herself, others and the world (Resnicow & Page, 2008).

1.3.2.5. Resilience and Thriving

O'leary and Ickovics model is similar to Miller and C'deBacca's quantum change model in its nature of continuity. Yet, in this model, it is believed that there are three possibilities for a person to reach after a traumatic event; survival, recovery and thriving. If the person is in the survival state, then it means the person was merely able to survive so their functioning is below its original level. The recovery level describes the level where the person has come through the difficulty and returned back to its initial state. Thriving level is the one which we see its mutual points with growth, where the person exceeds its original functioning in terms of behavioral, affective and emotional aspects. The creators of this model suggested that the resources the person has, focusing on the social resources, enhances the possibility of having a growth (O'leary & Ickovics, 1995; as cited in tedeschi, 1998).

1.4. DOMAINS OF GROWTH

The post traumatic growth is considered to be accomplished if a growth happened in one or more of the following domains in the individual's life; "*(1) more meaningful interpersonal relationships, (2) an increased sense of personal strength), (3) increased appreciation in life in general and changed priorities (4) new possibilities and (5) a richer existential and spiritual life"* (Tedeschi & Calhoun, 2004). Therefore, the way to assess whether a growth has happened or not can be known through exploring the aforementioned domains of one's life.

1.4.1. Relating to Others - More Meaningful Interpersonal Relationships

Trust is one of the key elements that gets destroyed with the traumatic experience. The nature of the trauma makes the survivor feel weak and helpless towards the traumatic event itself and the consequences that come along with it. The person tries with its best to use all of their sources and desperately seeks for a support that could come from anyone. Yet, in most cases that does not happen. The trust of the survivors to their loved ones in addition to themselves and to the idea that the world is a just place is shattered. Without the sense of safety, the whole world becomes a dangerous place. This change in the cognition, leads to hyperarousal symptoms, expecting the harm to come at any moment, avoidance of anything that could trigger the negative feelings. In addition to many other PTSD symptoms (Herman, 2015, p.33-36).

When the person receives a good support after the experience of the traumatic event, they tend to build the trust to the others again or realized the deeper meaning of their already existing relations. In a way, the trauma tests the scope of the person's relations, filtering the real and the sincere ones from the others.

The items that measure this domain of growth includes statements such as "I more clearly see that I can count on people in times of trouble", I more clearly see that I can count on people in times of trouble", "I have a greater sense of closeness with others", "I have more compassion for others", "I put more effort into my relationships", "I learned a great deal about how wonderful people are", "I better accept needing others" (Tedeschie & Calhoun, 1996).

Studies shows that social support is negatively correlated with PTSD symptoms (Ning, Guan & Liu, 2017). In addition, the results suggest that the survivors with lower levels of social support tend to report higher levels of physical pain as well (Richmond et al, 2018). The role of the social supports can be also seen in the clinical practice. Studies show that the elevated social support during treatment is associated with greater reductions in PTSD symptoms during the PTSD treatment process (Price et al, 2018; Bourassa et al, 2019)

The stated findings on the relationship of social support with PTSD are consistent with the results of the studies on PTG as well. The findings in this matter indicates that the social support has a direct relationship with relating to others index of the PTG (Cieslak et al, 2009). An example can be found in the longitudinal study conducted on 452 adolescence survivors of Wenchuan earthquake found that social support predicted subsequent PTG supporting the results (Jia, Liu, Ying & Lin, 2017).

Although social support is an important factor to focus on, it is important that all the aforementioned studies have emphasized on the point that the mentioned support was the perceived support by the survivor. Studies indicate that mostly, emotional support is the kind of the support that has a significant relationship with the PTG (Kamen et al, 2016; Tanriverd, Savas & Can, 2012)

The finding on the literature on the relationship of the social support and the development of PTG is consisted with the social cognitive processing theory. The theory suggests that the support interactions may facilitate or inhibit the cognitive processing influencing the outcome (Nenova et al, 2013). The conducted studies on this field examining the role of the support, shows a positive correlation with PTG and a negative correlation with perceived stress (Yeung & Lu, 2018).

1.4.2. Personal Strengths - An Increased Sense of Personal Strength

It is knowns that traumatic experiences destroy the survivors' trust to themselves and their ability to cope and handle the difficult situations. The world becomes such a dangerous place for the survivors, making them doub their skills to continue facing the new challenges that might come in the future (Herman, 2015, p.33-36). On the other hand, some survivor's struggles through the process to overcome the difficulties show them how strong they are. This is a new perspective and a new knowledge about themselves that they did not know about; *more vulnerable yet stronger* (Hobfoll et al, 2011). The self-realization that if they were able to handle this event, it meant that they can handle whatever challenging situation

they may face one way or another. It is a realization that increases the person's self-reliance and self-efficacy (Martin, 2017).

The items that measure this domain of growth includes statements such as "I have a greater feeling of self-reliance", "I know better that I can handle difficulties", "I discovered that I'm stronger than I thought I was"," I am better able to accept the way things work out" (Tedeschie & Calhoun, 1996).

According to the literature there has been many factors seems to have a relationship with this aspect of the growth which some of them include Sense of coherence (Nishi, 2010), returning to work after trauma (Sekely & Zakzanis, 2019), social support (Yılmaz, 2014), in addition to personality traits (Karanci et al, 2012), which seemed to be one of the most effective factors. In 2016, Mairean, have studied the relationship between secondary traumatic stress and personal posttraumatic growth on nurses and health workers, emphasizing on the role of perceiving secondary traumatic growth. The findings indicated a negative association between secondary traumatic stress symptoms and higher level of perceived posttraumatic growth for participants with a high level of openness, agreeability and conscientiousness. (Măirean, 2016).

It is important to be able to know the possible factors that may affect each domain, to be able to develop more effective interventions and have a better usage of the resources. For example, although the studies shows that PTSD can coexist with PTG, an interesting finding suggest that the survivors with PTSD seems to have higher levels of growth in the domain of appreciation of life and spiritual change, where as the ones with no symptoms of PTSD seems to have higher levels of growth in the domain of personal strengths. The explanation usually relies on the mechanisms that comes with the process of coping with PTSD symptoms (Nishi, 2010). Therefore, it is very important to have a good understanding of the factors that are involved in the process of growth.

1.4.3. Appreciation of Life and Changed Priorities

Changed priorities domain is focusing on the value giving system of the survivor, claiming that when the person is exposed with a very challenging situation, they realize the real value and importance of things that the survivor might have neglected, took it for granted and did not pay enough attention before the traumatic experience. Or, it could be meaning the opposite, where the person realized how much they used to value something that did not deserve all that highness. Trauma plays the role of the trigger, opening the person's mind to question the values of the things in the existing established life of the survivor and creating a new value ranking for the things that the survivors carry to their current life after the traumatic experiences. These changes in the priorities could include the social relations of the person and the way how the person may spend his time, their own look, the attention they give for their physical wellbeing, nature or many other things (Malhotra & Chebiyan, 2016).

In some cases, the survivor attributes a meaning for the traumatic experience, believing that that surviving after such a threatening experience, they were given a second chance. They have to question their existing life and change their priorities in life to live this second chance with higher purpose. Especially studies on hostages have showed supporting results for this phenomenon (Sank, 1979; Simon & Blum, 1987; Strentz, 1979; Malhotra & Chebiyan, 2016).

Appreciation of life, which comes with the changed priorities represents the idea that when the person loses what was taken for granted, starts to realize the importance of small things in life. (Martin, 2017). In addition to a changed sense of what is important (Tedeschi and Calhoun, 2004). The self-appreciation and the appreciation of the surroundings increases. Especially, one very crucial aspect of the self-appreciation comes from the transformation of the self-image of the person from being victim to being a survivor, in addition to the acknowledgement of the one's own vulnerability, mortality and preciousness (Tedeschi, et al., 1998; Arıkan, 2007). Therefore, due to their interrelated nature both appreciation of life and changed priorities are categorized under single domain.

The items that measure this domain of growth includes statements such as “I changed my priorities about what is important in life”, “I have a greater appreciation for the value of my own life”, “I can better appreciate each day” (Tedeschie & Calhoun, 1996).

1.4.4. New Possibilities

Through the pain of trauma, the person’s awareness on his own abilities to cope and the hidden strengths that they did not know that it existed on them gets discovered, which leads to the learning of new coping ways and new possibilities in life (Martin, 2017). The taken for granted assumptions are shattered about themselves and the surrounding world, allowing for a new perspective to emerge and give a new look for life. Tedeschi and Calhoun (2004) explains that the growth in this domain is related to the perception and acceptance of a new life philosophy that changes the previous assumption leading to a new path with new opportunities which was not available prior to the trauma.

The items that measure this domain of growth includes statements such as “I developed new interests”, “I established a new path for my life”, “I am able to do better things with my life”, “New opportunities are available which wouldn't have been otherwise”, “I am more likely to try to change things which need changing” (Tedeschie & Calhoun, 1996).

1.4.5. A Richer Existential and Spiritual Life

All the domains of the PTG feeds into each other, they are like an interrelated part of the whole system of growth. When the survivor’s schemas are challenged, the person struggles to build a new world with new assumptions. The attributed meaning for life is questioned; a new meaning behind the relations is being seeked, the way and the things which are appreciated are changed, the priorities and what is more important than others are looked for and the ulterior aim of life is being searched. After the shattered assumptions due to the traumatic event, a need to restructure the cognitive schemas to make a sense of what happened and to look for a higher meaning arises. (Tedeschi and Calhoun, 1998). This

deeper meaning could be in the format of a “deeper understanding of own religion” or “a religious development in the form of connectedness to a tencedent being” or a “discovery of a spirituality” (Arıkan, 2007). The items that measure this domain of growth includes statements such as “I have a stronger religious faith” and “I have a better understanding of spiritual matters” (Tedeschie & Calhoun, 1996).

Studies shows that spirituality and religious beliefs plays an important role in the recovery process of the survivors (Askay & Magyar-Russel, 2009) and associates with higher levels of PTG (Pardes & Pereira, 2018). Additionally, a strong association between religious coping and PTG is observed (Askay & Magyar-Russell, 2009). However, it is important to be aware that there are some positive religious coping and negative religious coping that a person could resort to. A study on the survivors of Katrina Hurricane showed that while positive religious coping was associated with PTG, negative religious coping was associated with psychological distress (Chan & Rhodes, 2013). Similarly, another study exploring PTG after childhood victimization suggested consistent results, highlighting the importance of investigating the cognitions on the religious coping, instead of only focusing on the general religiosity of the individual (Schaefer et al, 2018).

1.5. Resilience, Coping AND PTG

According to the literature, some concept like coping and resilience has been closely associated with the development of PTG by the trauma survivor. Therefore, it is important to understand the core difference among all of the three concepts and be able to differentiate them from PTG.

The term Post traumatic Growth can be seen similar and maybe interrelated with the concept of resilience, resembling its positive components. Yet, different in its core; unlike the resilience, which is defined as *“maintaining relatively stable, healthy levels of psychological and physical well-being”,* growth is focusing on the positive change and an improvement on functioning, beliefs and values compared to the pre-trauma period (Martin, 2017).

Studies shows that resilience is a very important factor for the development of PTG by having a mediating effect, especially focusing on the resilience that comes with the childhood traumas (Lee, Yu & Kim, 2020). Similar, results were found with the post-conflict populations, showing a positive association between PTG and resilience (Mahdi, Prihadi & Hashim, 2014).

The second major factor that has been widely studied in this field is the role of the coping used by the traumatized person. Coping is defined as *"the thoughts and behaviors mobilized to manage the internal and external stressful situations"* (Folkman & Moskowitz, 2004). The main strategies used by people are found out to be categorized under 14 main strategy*; self-distraction, active coping, denial, substance use, use of emotional support, use of instrumental support, behavioral disengagement, venting, positive reframing, planning, humor, acceptance, religion, and self-blame*. (Baumstarck et al, 2017). Studies on different populations, indicated the existence of a role for the coping style the person uses, where the outcome is negative when the used strategy is an ineffective one and the outcome is positive when the strategy is an effective one. (Saxon et al., 2017)

Based on the role of coping strategies on the mental wellbeing of the individuals, many studies have explored its role on PTG as well. A study on 454 college students found that satisfaction of relatedness need, challenge appraisal, emotional expression, acceptance, and positive reframing were associated with higher PTG (Yeung et al., 2016). Similarly studies with refugees are suggesting similar factors to be associated with PTG. A meta-analysis exploring the optimism, social support, and coping strategies as factors contributing to posttraumatic growth, reviewed 103 study finding a significant effect size in all the three coping systems, where religious coping with the age and gender being significant moderators and positive appraisal coping showed the largest effect size. Other coping mechanisms such as social support, seeking for social support, spirituality and optimism were moderately related to PTG. Whereas, the acceptance presented the smallest effect size (Prati & Pietrantoni, 2009). In 2016, review exploring the well-being of refugees after trauma have shown replicating results supporting the facilitator role of social support, coping styles, religiosity, and optimism (Chan et al., 2016). A recent study conducted in 2018 on the well-being and posttraumatic growth among Syrian Refugees in Jordan have

also supported the role of the sufficient income and humanitarian assistance could contribute to the occurrence of PTG (Rizkalla & Segal, 2018).

In conclusion, studies show a close relationship between coping, resilience and the development of PTG. However, it is important to highlight that they are just associated terms and not different names of the same phenomena.

CHAPTER TWO

METHODOLOGY

2.1. Study Design

This study's design is cross-sectional.

2.2. Study Population and Sample

It was calculated that the needed sample size was 275 refugees, taking the alpha = 0.05, with a two-sided test, 95% confidence level. The number of the people who opened the link of the survey questions was 446, however only 257 of them filled the survey. The number of the participant who filled the PTG was 217 participants. The response rate was 78.9%.

2.3. Instruments

The study consisted of seven sections (see Appendix A), which was composed of sociodemographic information form including the traumatic life experiences, Post-traumatic Growth inventory, PTSD patient Checklist, Brief COPE, General Self-efficacy Scale, and an open-ended question about the strengths that have made them overcome the difficulties faced in their lives. All the questioned were administered in Arabic.

2.3.1. Sociodemographic Information Form

It is a set of questions prepared by the researcher of this study to obtain sociodemographic information from the participant, which are related to the purpose of this study and the history of their migration. The questions including items such as sex, age, marital status, number of children, economic status, their residency, their IDP history, their duration in Turkey, education level, job status, the consistency between their education and their current occupation. In addition to a question which asked them about their opinion related to their own culture compared to the culture of the host country.

Moreover, it included some questions taken from Harvard Trauma Questionnaire part I items, about the type of the traumatic events that they have experienced, in addition to some more traumatic events relevant for the refugee status. More than one event could be marked in the checklist. The question of each item was clearly stated and explained to make sure that all the participants have understood the questions.

The Socio-demographic information section, also included a question about the perceived social support by asking them about the people that they share their sorrows and problems.

The questions of this section were initially prepared in English and have been translated to Arabic by a native Arabic speaker. The translation has been reviewed by a group ofnative speakers of the target population to ensure the clarity of the questions.

2.3.2. Post-traumatic Growth Inventory

Post-traumatic growth Inventory is an assessment tool developed by Tedeschi and Calhoun capturing any change that could be perceived as a growth (1996). The inventory is consisted of 21 items and five sub-scales; relating to others, new possibilities, personal strengths, spiritual change and appreciation of life. Each item is ranging from 0 (I did not experience any change) to 5 (I experienced this change to a very great extend). The reliability of the PTGI has been studied by Tedeschi and Calhoun on a sample of university students. According to their study, PTGI showed a good internal validity, acceptable test-retest reliability and an approximately normal distribution of the scores on the scale (Tedeschie & Calhoun, 1996). Many other studies following their steps was conducted reaching results consistent with the primary study. This questionnaire became widely used tool for the evaluation of growth for many different populations and samples (Medeiros et al., 2017; García & Wlodarczyk, 2016).

The used questionnaire in this study is the Arabic version of the questionnaire, which has been validated by Carine and his colleagues. The inventory was validated with the sample of Palestinian adults, where the results showed that it has an adequate convergent validity and predictive, adequate psychometric properties with high reliability for the main inventory (α=.96) and adequate reliability for its subscales (α=.95 and .84) (Carine, 2014)

2.3.3. General Self Efficacy Scale

The General Self Efficacy Scale is an assessment tool to measure people's beliefs about their capacity to cope with life's demands. The GSES comprises 10 items rated on a scale of 1 (not at all true) to 4 (exactly true). Sample items include: “I can manage to solve difficult problems if I try hard enough” and “If I am in trouble, I can usually think of a solution”. Thus, the higher the score, the greater the individual’s generalized sense of self-efficacy.

The original scale was developed by Schwarzer and Jerusalem (1995) and all the normative data and psychometric analyses was conducted on German samples, where the results indicated high internal consistency (α=0.82 to 0.93) (Schwarzer & Jerusalem). The validation of the scale has been broadened to various sample groups, adding to the richness of the literature general health and self-efficacy (De las Cuevas & Peñate, 2015; Mystakidou, 2008). The Arabic validated version of the GSES was used in this study, where its reliability and validity has been studied on a sample of Qatari young women (Crandal et al., 2016).

2.3.4. PTSD Checklist PCL-5

The PCL-5 is a 20-item self-report measure that assesses the 20 DSM-5 symptoms of PTSD. It is prepared as a 5-point Likert scale ranging from 0 (not at all) to 4 (extremely), as a rate for how bothered the person was with the each of the 20 items in the past month.

PCL-5 is considered to be a strong tool to assess the PTSD symptoms. According to the National Center of PTSD, it was seen as a possible alternative for structured clinical interview such as the Clinician-Administered PTSD Scale (CAPS-5), which are seen as the gold standard of diagnosing PTSD (National Center for PTSD, 2016).

PCL is a psychometrically sound measure, where it has a high validity and reliability; (Blevins et al., 2015; Bovin et al., 2016; Cohen et al., 2014) internal consistency (α = .94), test-retest reliability (r = .82), and convergent (rs = .74 to .85) and discriminant (rs = .31 to .60) validity. (Galovski et al., 2016)

In this study, the Arabic version of the PCL-5 was used, where "the internal consistency of the PCL-5 was high (alpha = .85) and the instrument showed an adequate convergent validity. Using the cut-off score of 23, the PCL-5 achieved the optimal balance of sensitivity and specificity (area under the curve = .82, $p < .001$; sensitivity = .82, specificity = .70)" (Ibrahim et all, 2018).

2.3.5. Brief COPE

The Brief COPE is a self-assessment tool of 28 items developed based on accepted theoretical models in the literature such as Lazarus' transactional model of stress (1984) and the behavioral self-regulation model of Carver and Scheier (1989) assessing effective and ineffective coping styles, focusing on the following fourteen strategy; *self-distraction, active coping, denial, substance use, use of emotional support, use of instrumental support, behavioral disengagement, venting, positive reframing, planning, humor, acceptance, religion, and self-blame*. (Baumstrack et al., 2017)

The Arabic version of the Brief COPE was used. There was a good internal consistency for the 14 dimensions (α =.63 and α =.94), good construct validity was suggested by the expected divergent validity results (Nawel & Elisabeth, 2015).

2.3.6. Strengths

It is a single open-ended question, asking about the things that helped the person to become stronger and overcome the difficult experiences that they have encountered. The question was optional.

2.4. Procedure

The data collection process started after the approval of the ethical committee of the Istanbul Bilgi University.

The data is collected through an online data collection platform in the dates between 04.10.2020 and 19.12.2020. The study did not include any misleading or

insufficient information that required manipulation. Therefore, each participant was informed about the purpose of this study in addition to its voluntariness. Due to the nature of the study, which the assessment tools are self-assessment questionnaires provided through an online platform, the study did not include illiterate people or the ones who have no access to the internet. The online data collection link was shared with the target population through database and WhatsApp groups of local NGOs, in addition to online platforms such as Facebook pages, Instagram, WhatsApp groups, etc. The participants participated in the study voluntarily through the online link.

To ensure the confidentiality and voluntariness, no personal information that the participant could be identified was collected, so it was all anonymous. An informed consent form was presented in the beginning of the survey to the participants explaining that the participation is voluntarily and providing the contact information, where the participants could reach if they required any information related to the study.

The order of the questionnaires were organized in a way that it was intended to end it with a positive question. Therefore, the last question was about the things the person had to overcome the difficulties in their lives.

2.5. Statistical Analysis

IBM Statistical Package for the Social Sciences (SPSS) version 22.0 was used for data entry and analyses. The dependent variable was PTG subscales representing the five domains of PTG, independent variables were sociodemographic information such as age, sex, education level, marital status, economic status, number of children, the education-job consistency, working type and working status. In addition to IDP and trauma experience, perceived social support, general self-efficacy and the coping style of the participant. Bivariate associations were estimated using chi-square tests (for categorical variables), t-test or analyses of variance for continues variables, respectively. Risk factors associated with any of the outcomes of interest and covariates associated with both risk factors and outcomes at $P < 0.05$ were retained in multiple regression models to examine the relationships between the independent and dependent variables for the control of the confounder factors. The fit of model was tested using the Durbin Watson.

CHAPTER THREE

RESULTS

3.1. Descriptive Statistics

3.1.1 Sociodemographic Characteristics of The Participants

Table 3.1.1 presents the sociodemographic characteristics of the participants of this study. Out of the two hundred fifty-seven participant, 60.7% of them were females and 39.3% were males. The mean age of the participants was 32.6±9.4 with a range of 18 to 88. The majority of the sample was married (56.0%). In terms of the number of the children, the number varied from 0 to 9 with the mean of 2.19±1.70, among the participants who have been married at some point in their lives.

The years of education varied from 1 to 29 years with the mean of 11.98 ± 5.47. Self-reported income level of the participants ranged between very low and high, where the majority of the participants (58.4%) reported middle-income level. There was a diversity in the working status of the research participants. 38.9 % of them was unemployed, 14.8% was working in volunteer works, 17.9% of them were working in daily jobs with irregular income, and 28.4% working in regular jobs with stable payments. In terms of consistency between the obtained education and the participants' works, 58.8% reported working in jobs not consistent with their education.

Most of the participants have experienced internal displacement prior to their refuge process, where 62.3% of them changed their initial settlements prior coming to their current settlements, while only 37.7% of them directly came to Turkey. The duration of the participants' settlement in Turkey varied from 1 to 10 years with the mean of 5.85 ±1.78.

The level of Turkish language knowledge varied; 2.7% did not know any Turkish, 21.4% only knows few words enough for the basic communication, 31.1% understands mostly all the spoken conversations but cannot speak and 44.7% understands everything and can speak the language.

Table 3.1.1: Sociodemographic Characteristics of the Participants

Variables	N	%
Sex		
Female	156	60.7
Male	101	39.3
Age		
Less than 24	40	15.6
25 to 34	125	48.6
35 to 44	65	25.3
More than 45	27	10.5
Marital status		
Single	82	32.7
Married	145	56.0
Divorced	14	5.4
Widowed	13	4.7
Separated	3	1.2
Financial Status		
Very Low	12	4.7
Low	77	30.0
Middle	150	58.4
High	18	7.0
Working Status		
Unemployed	100	38.9
Working in volunteer works	38	14.8
Working in daily jobs with irregular income	46	17.9
Working with regular income	73	28.4
IDPs before becoming a Refugee		
No	97	37.7
Yes	160	62.3
Level of Turkish Language knowledge		
Doesn't know any Turkish at all	7	2.7
Knows only few words enough for basics	55	21.4
Understands most or all the conversations but cannot speak	80	31.1
Understands everything and can speak	115	44.7
Total	**257**	**100.0**

3.1.2. Mean, Standard Deviations and Range of PTG Domains

Table 3.1.2. shows the means, standard deviation and the ranges for the subscales of the PTGI. In order to get an objective comparison between means, each subscale mean was divided into the number of its items and the ranking for the mean scores of the growth was as following respectively; personal strength (3.70), new possibilities (3.21), appreciation of life (3.16), relating to others (2.14), spiritual change (1.72).

Table 3.1.2. Mean, Standard Deviations and Range of the Subscales of PTGI

Subscales of PTGI	Mean	SD	Range (min-max scores)	Total scores/ number of items of the subscales
Relating to Others	15.00	7.40	0-34	2.14
New Possibilities	16.03	5.98	0-25	3.21
Personal Strength	14.81	4.69	0-20	3.70
Spiritual Change	3.44	1.57	0-5	1.72
Appreciation of Life	9.49	3.50	0-15	3.16
Total Scores of PTGI	58.70	19.13	0-99	2.80

3.1.3. Traumatic Experiences of the Participants

As shown in Table 4.1.4, 7.8 % of the participants did not report any traumatic event. The highest reported traumatic experience was “being exposed to combat situation such as explosions, artillery fire, shelling or landmines”, which was stated by 63% of the participants. Followed by “being witnessed shelling, burning, or razing of residential areas or marshlands” (61.9%), and continuing as following ranked from the highest to lowest; property looted, confiscated, or destroyed, serious physical injury of family member or friend from combat situation or landmine, knowing someone who has COVID-19, physically harmed , witnessed mass execution of civilians, witnessed torture, witnessed rotting corpses, suffered ill health without access to medical care or medicine , witnessed chemical attacks on residential areas or marshlands, imprisoned, witnessed murder, tortured, kidnapped or taken as a hostage, witnessed sexual abuse or rape, sexually abused or raped , and having COVID-19.

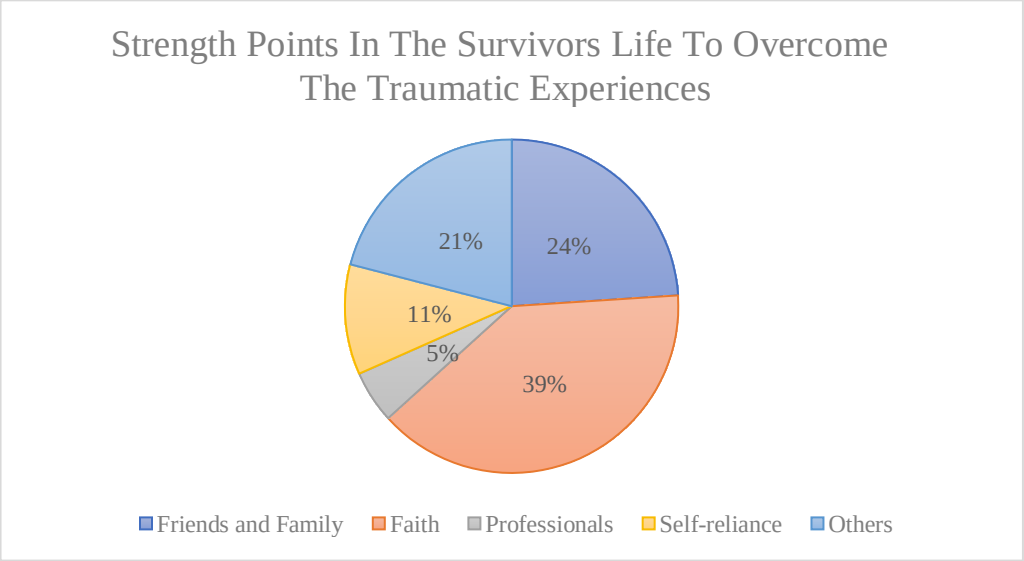
Table 3.1.3 Traumatic Event Experiences of the Participants

Variables	**n**	**%**
Exposed to combat situation (explosions, artillery fire, shelling) or landmine.	162	63
Witnessed shelling, burning, or razing of residential areas or marshlands	159	61.9
Property looted, confiscated, or destroyed	121	52.5
Serious physical injury of family member or friend from combat situation or landmine	82	31.9
Knowing someone who has covid 19	77	30.0
Physically harmed (beaten, knifed, etc.)	57	22.2
Witnessed mass execution of civilians	51	19.8
Witnessed torture	51	19.8
Witnessed rotting corpses	49	19.1
Suffered ill health without access to medical care or medicine	47	18.3
Witnessed chemical attacks on residential areas or marshlands	35	13.6
Imprisoned	33	12.8
Witnessed murder	25	9.7
Tortured	22	8.6
Kidnapped or taken as a hostage	17	6.6
Witnessed sexual abuse or rape	9	3.5
Sexually abused or raped (i.e., forced sexula activity)	7	2.7
Having COVID-19	7	2.7

167 of the participants choose to reply for the question about the what was the strengths of the individual that facilitated the process of overcoming the traumatic event, making only 64.98% of the participants responding to this question. The highest reported factor that was considered and the strength of the person to face the traumas was reported as their religious beliefs and their faith composing 39% of the participants. The survivors' responses included statements such as the *"My reliance on Allah and my knowledge that He will be always with me helping me", "Believing on fate and that Allah knows my way", "My trust to Allah's ability to help me", My belief that Allah is always with me and will never leave me with no support", "Strongly sticking to my faith and the teachings of my religion and the patience that comes with it", Making Duaa (Prayer)", "Quran and the verses".*

Followed by family and friend's support (24%), self-reliance of the person (11%) and professionals support (5%). In addition to other factors, such as financial status, education level, personal characteristics and some coping techniques.

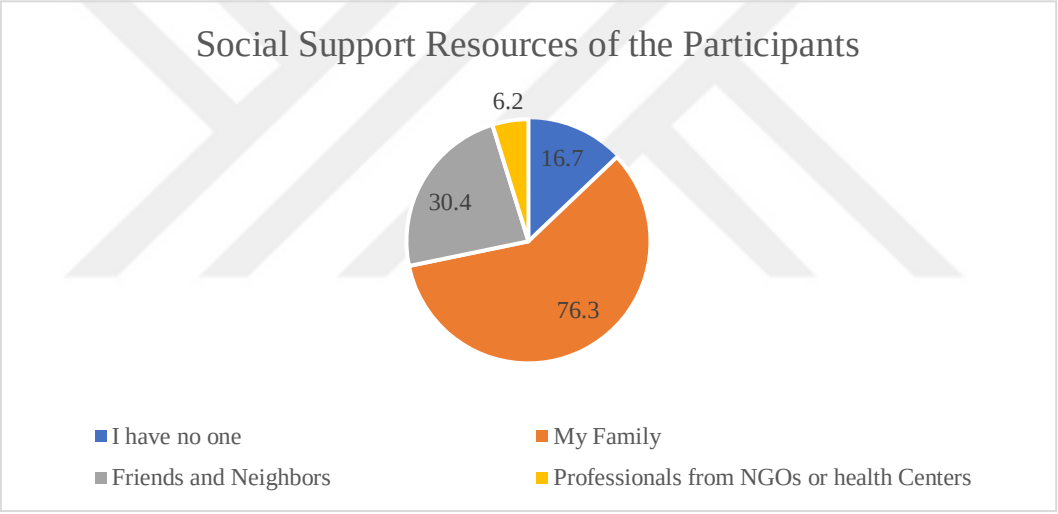
Figure 3.1.3. Strength Points in the Survivors' Life to Overcome The Traumatic Experiences



3.1.4 Perceived Social Support

Figure 3.1.3 is presenting the data on the perceived social support reported by the participants, which indicated that most of the population are seeking support from their families with the percentage of 76.3%, followed by friends and neighbors with the percentage of 30.4% and only 6.2% have reported seeking support of professionals from NGOs or health centers, while 16.7% have reported not having anyone to share their problem or sorrow.

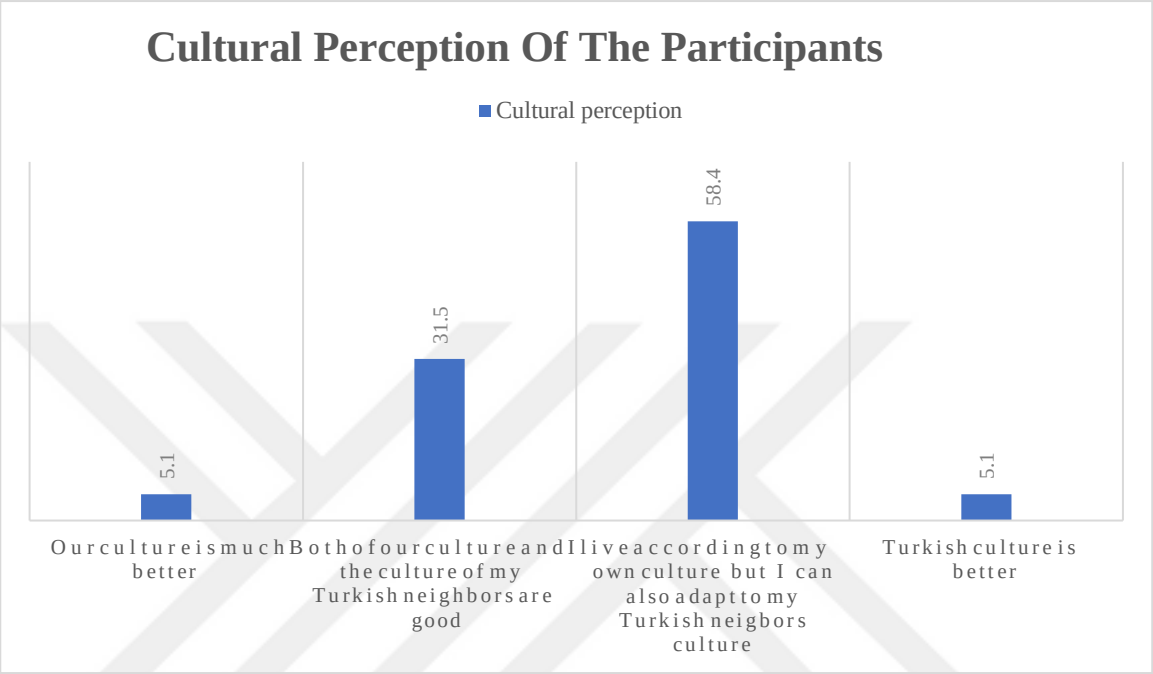
Figure 3.1.4 Social Support Resources of the Participants



3.1.5 Cultural Perception and Adaptation of the Participants

Figure 3.1.4 is graph showing the reported perception of the participants in terms of their attitude towards their own culture and the culture of the host country. The highest reported cultural perception was that "I live according to my culture but I can also adapt to my Turkish neighbors' culture" with 58.4%. Followed by "both of our culture and the culture of my Turkish neighbors are good" composing 31.5%. While, participants who reported that they think that their own culture is much better than the Turkish culture composed only 5.1% of the population, which is the same percentage that reported Turkish culture as better than their own culture.

Figure 3.1.5 Cultural Perception of the Participants



3.2 BIVARIATE ANALYSIS

3.2.1. Relationship Between PTGI Sub-Category Scores and Socio-Demographics

As shown in table 4.2.1, relating to others subscale was related to working in a job consistent with the education, marital status, economic status, education level and number of the children ($p<0.05$). There was no significant relationship between relating to others and sex, being IDP, working status, age, level of Turkish, or cultural perception of the participant ($P>0.05$).

New possibilities sub-scale of PTGI showed a significant relationship with working in a job consistent with the education, economic status, level of Turkish, and cultural perception of the person ($P<0.05$), while there was no significant relationship with sex, being IDP and marital status ($P>0.05$).

Personal Strengths sub-scale of PTGI was related to only level of Turkish and the cultural perception of the participant (P<0.05) and no significant relationship with the other variables (P>0.05).

Spiritual Change subscale showed a significant relationship with age, level of Turkish and education level (P<0.05). Appreciation of life sub-scale of PTGI did not show any significant relationship except with the level of Turkish (P>0.05).The working types categorized under work status showed similar results for working voluntarily and working in a regular work. Similarly, unemployed and irregular work. Therefore, a new category was formed on the base of the working type. The results showed a significant relationship between this new variable of working type and personal strengths (P<0.05).

Table 3.2.1 Relationship Between PTGI Sub-category Scores and Socio-demographics

	Relating to Others Mean ± SD	**New Possibilities** Mean ± SD	**Personal Strength** Mean ± SD	**Spiritual Change** Mean ± SD	**Appreciation of Life** Mean ± SD
Sex					
Female	15.37 ± 7.37	16.20 ± 5.88	15.14 ± 4.55	3.48 ± 1.50	9.81 ± 3.40
Male	14.43 ± 7.15	15.77 ± 6.15	14.31 ± 4.89	3.38 ± 1.70	8.99 ± 3.62
t;p	- 0.909;0.365	-0.518;0.605	-1.266;0.207	-0.428;0.669	-1.702;0.090
Education-Job consistency					
No	14.11 ± 6.78	15.27 ± 6.12	14.37 ± 4.86	3.40 ± 1.55	9.13 ± 3.59
Yes	16.19 ± 8.05	17.04 ± 5.66	15.41 ± 4.42	3.49 ± 1.61	9.96 ± 3.34
t;p	-2.064;0.040	-2.181;0.030	-1.625;0.106	-0.438;0.662	-1.720;0.087
Being IDP					
No	15.84 ± 7.19	16.10 ± 5.74	14.56 ± 4.68	3.44 ± 1.57	9.64 ± 3.21
Yes	14.53 ± 7.40	15.96 ± 6.13	14.94 ± 4.72	3.43 ± 1.58	9.40 ± 3.66
t;p	1.253;0.212	0.137;0.891	-0.604;0.547	0.019;0.985	0.506;0.614
Marital Status					
Single	14.00 ± 7.33	15.37 ± 6.08	14.17 ± 4.81	3.20 ± 1.58	9.03 ± 3.67
Married	14.76 ± 7.21	16.17 ± 6.05	15.15 ± 4.50	3.53 ± 1.56	9.52 ± 3.42
Separated/widowed/divorced	18.28 ± 7.75	17.79 ± 5.23	14.79 ± 5.22	3.57 ± 1.62	10.34 ± 3.40
f;p	3.59;0.030	0.734;0.481	0.937;0.394	1.094;0.337	1.435;0.24

Working Status					
Unemployed	14.24± 7.52	15.20 ± 6.34	14.36 ± 5.16	3.21 ± 1.62	9.78 ± 3.56
Working in volunteer works	16.26 ± 7.01	16.94 ± 4.85	16.06 ± 3.93	3.90 ± 1.37	9.97 ± 3.43
Working in daily jobs with irregular income	14.10 ± 7.84	15.64 ± 6.43	13.85 ± 4.81	3.49 ± 1.60	8.46 ±3.36
Working in daily jobs with regular income	15.94 ± 7.13	16.88 ± 5.65	15.36 ± 4.21	3.48 ±1.59	9.49 ± 3.49
f;p	1.24;0.34	1.26;0.29	1.87;0.14	1.48;0.22	1.52;0.21
Working type					
Unemployed/ irregular	14.20 ± 7.59	15.34 ± 6.35	14.20 ± 5.04	3.30 ± 1.61	9.36 ± 3.54
Volunteer/regular	16.04 ± 7.06	16.90 ± 5.38	15.60 ± 4.12	3.61 ± 1.52	9.65 ± 3.46
f;p	1.320;0.068	0.052;0.057	0.038; 0.025	0.361;0.148	0.612;0.552
Economic Status					
Very low	11.45 ± 7.19	12.36 ± 7.72	12.73 ± 5.73	3.09 ± 2.071	8.45 ±4.08
Low	14.12 ± 6.43	15.17 ± 5.78	14.51 ± 4.72	3.52 ±1.49	9.20 ±3.25
Middle income	16.21 ± 7.56	16.85 ± 5.44	15.32 ± 4.09	3.43 ± 1.55	9.88 ± 3.36
High	11.88 ± 8.32	15.73 ± 8.07	13.67 ± 7.10	3.44 ± 1.82	8.44 ± 4.69
f;p	3.36;0.020	2.68;0.048	1.68;0.17	0.24;0.87	1.525;0.209
Level of Turkish					
I dont know any Turkish	17.83 ± 12.32	17.83 ± 4.79	15.50 ± 3.94	3.17 ± 2.14	9.33 ± 3.14
I know only few words enough for basics	14.31 ± 7.54	13.65 ±6.57	13.15 ± 5.27	2.98 ± 1.72	8.83 ±3.42
I understand most if the speeches or all of it but cant speak	14.87 ± 6.68	15.14 ± 6.18	14.63 ± 4.74	3.64 ± 1.53	8.83 ± 3.77
I understand and I can speak	15.28 ±7.56	17.81 ± 4.99	15.76 ± 4.18	3.54 ± 1.46	10.33 ± 3.21
f;p	0.479;0.697	6.478;0.000	3.482;0.017	1.990;0.116	3.305;0.02
Cultural Perception					
Our culture is much better	11.10 ±9.86	13.80±8.55	10.70±6.43	2.60±2.12	7.70±4.79
Both of our culture and the culture of my Turkish neighbors are good	16.20±7.26	16.83±5.41	15.46±4.20	3.54±1.36	9.79±2.95
I live according to my own culture but I can also adapt to my Turkish neighbors culture	14.53±7.11	15.44±6.00	14.71±4.76	3.40±1.65	9.34±3.66
Turkish culture is better	16.36±8.37	19.64±5.20	15.45±3.72	3.91±1.36	10.82±3.34
f;p	1.85;0.139	2.70;0.047	3.197;0.024	1.418;0.238	1.662;0.176

	Relating to Others r;p	New Possibilities r;p	Personal Strength r;p	Spiritual Change r;p	Appreciation of Life r;p
Age	0.121;0.074	-0.064;0.345	-0.062;0.361	0.135;0.047	-0.025;0.0.710
Education level	0.152;0.025	0.110;0.106	0.111;0.102	0.149;0.028	0.033;0.632
Number of Children	0,188;0.005	0.084;0.215	0.114;0.094	0.132;0.051	0.112;0.099

3.2.2. The Relationship Between the Sub-categories of PTGI and Traumatic Experiences

As shown in table 3.2.2, relating to others sub-scale showed a significant relationship with traumatic experience included property looted, confiscated, or destroyed", "witnessed shelling, burning, or razing of residential areas or marshlands", "exposed to combat situation "serious physical injury of family member or friend from combat situation or landmine", "physically harmed was relating to others (P<0.05). Another subscale with a significant relationship was Spiritual change with witnessing mass execution and knowing someone who has covid-19 or having covid-19. There was no significant relationship between new possibilities, personal strengths, appreciation and any of the traumatic experiences (P>0.05).

Table 3.2.2. The Relationship Between the Sub-categories of PTG and Traumatic Experiences

	Relating to Others rho;p	**New Possibilities rho;p**	**Personal Strength rho;p**	**Spiritual Change rho;p**	**Appreciation of Life rho;p**
Traumatic Experiences					
Property looted, confiscated, or destroyed	-0.187;0.006	-0.103;0.130	-0.085;0.211	-0.033;0.632	-0.107;0.115
Imprisoned, Kidnapped or taken as a hostage	-0.045;0.509	0.017;0.807	0.54;0.431	0.030;0.662	0.099;0.144

Suffered ill health without access to medical care or medicine	-0.097;0.156	-0.040;0.559	-0.012;0.859	-0.098;0.149	-0.010;0.880
Witnessed mass execution of civilians	-0.020;0.765	0.092;0.174	0.094;0.167	0.160;0.018	0.057;0.402
Witnessed shelling, burning, or razing of residential areas or marshlands	-0.202;0.003	0.041;0.544	0.004;0.956	0.032;0.634	-0.022;0.242
Witnessed chemical attacks on residential areas or marshlands	0.031;0.655	0.082;0.229	0.067;0.323	0.060;0.375	0.049;0.476
Exposed to combat situation (explosions, artillery fire, shelling) or landmine.	-0.205;0.002	-0.116;0.088	-0.034;0.623	-0.027;0.696	-0.071;0.298
Serious physical injury of family member or friend from combat situation or landmine	-0.137;0.044	-0.084;0.216	-0.077;0.261	-0.081;0.234	-0.076;0.264
Witnessed rotting corpses	-0.044;0.521	0.000;0.997	-0.080;0.242	0.033;0.632	-0.058;0.396
Witnessed sexual abuse or rape or Sexually abused or raped (i.e., forced sexula activity)	0.070;0.301	0.005;0.945	0.040;0.556	0.004;0.949	0.084;0.218
Witnessed torture or being tortured	-0.029;0.672	0.073;0.284	0.003;0.965	0.116;0.068	0.068;0.317
Witnessed murder	-0.049;0.473	-0.072;0.288	0.003;0.968	0.016;0.817	-0.016;0.810
Physically harmed (beaten, knifed, etc.)	-0.194;0.004	0.010;0.881	-0.004;0.956	-0.050;0.467	-0.018;0.788
Having covid or Knowing someone has covid	-0.028;0.687	0.007;0.914	0.021;0.761	-0.138;0.042	0.003;0.960
Number of traumatic experiences (r;p)	-0.171;0.012	-0.020;0.766	-0.027;0.697	-0.018; 0.794	-0.020;0.764

3.2.3. The relationship between the domains of PTG and social support, PCL, GSES and COPE

Table 3.2.3. demonstrates the correlation among the dependent variables PTG sub-categories and independent variable of social support, PCL, GSES and COPE. While there was no significant relationship between social support and new possibilities, personal strength, spiritual change and appreciation of life (P>0.05), there was a significant relationship with relating to others sub-scales of PTGI (P<0.05).

Additional correlation analysis was conducted as the dependent variable PTG subscales and the independent variables as PCL, brief COPE subcategories and GSES. The results showed a significant positive relationship between relating to others and some categories of COPE, which included the self-distraction, active coping, use of emotional support, use of instrumental support, positive reframing, planning, acceptance and religion (P<0.05). In addition to significant relationships with GSES (P<0.05).

New possibilities sub-category of PTG was also significantly associated with self-distraction, active coping, use of emotional support, use of instrumental support, positive reframing, planning, humor, acceptance, religion. In addition, a positive relationship with GSES and a negative one with PCL scores (P<0.05).

Personal strengths have also showed significant relationship with a good number of variables. A negative correlation was observed between PCL and the personal strengths category. In terms of its relations with coping strategies used by the person, there was a significant relationship between self-distraction, active coping, use of emotional support, positive reframing, planning, humor, acceptance, religion and self-blame. Similar with the previous categories, there was a significant relation with GSES and total cope as well (P<0.05).

The significant relationship between spiritual change with PCL, total cope and GSES was found. Additionally, a significant relationship between spiritual change and the categories of cope was detected, which are active coping, substance abuse, positive reframing, planning, acceptance, religion and self-blame (P<0.05). As the subcategory of PTG, appreciation of life has shown a significant relationship with GSES and total cope including the following categories of cope; self-distraction, active coping, use of emotional support, positive reframing, planning, acceptance, religion (P<0.05).

Table 3.2.3. The Relationship Between the Domains of PTG and Social Support, PCL, GSES and COPE

	Relating to Others rho;p	**New Possibilities rho;p**	**Personal Strength rho;p**	**Spiritual Change rho;p**	**Appreciation of Life rho;p**
Social support	0.171;0.012	0.084;0.217	0.023;0.735	0.094;0.166	0.036;0.593
	Relating to Others r;p	**New Possibilities r;p**	**Personal Strength r;p**	**Spiritual Change r;p**	**Appreciation of Life r;p**
PCL	-0.128;0.059	-0.187;0.005	-0.197;0.003	-0.181;0.007	-0.106;0.120
GSES	0.238;0.001	0.431;0.000	0.428;0.000	0.283;0.000	0.368;0.000
Brief COPE					
Self-Distraction	0.187;0.010	0.186;0.011	0.1252;0.000	0.092;0.209	0.344;0.000
Active Coping	0.267;0.000	0.392;0.000	0.420;0.000	0.320;0.000	0.432;0.00
Denial	-0.27;0.711	-0.130;0.076	-0.123;0.092	-0.072;0.326	-0.008;0.917
Substance use	-0.097;0.188	-0.053;0.469	-0.077;0.291	-0.209;0.004	0.102;0.165
Use of Emotional Support	0.330;0.000	0.172;0.018	0.153;0.036	0.094;0.197	0.204;0.005
Use of Instrumental Support	0.333;0.000	0.161;0.027	0.082;0.262	0.060;0.411	0.138;0.059
Behavioral Disengagement	0.056;0.445	-0.087;0.237	-0.114;0.118	-0.033;0.655	-0.035;0.633
Venting	0.136;0.064	-0.032;0.666	-0.023;0.758	0.009;0.905	0.133;0.068
Positive Reframing	0.184;0.012	0.324;0.000	0.346;0.000	0.259;0.000	0.336;0.000
Planning	0.218;0.003	0.323;0.000	0.358;0.000	0.296;0.000	0.362;0.000
Humor	0.108;0.139	0.169;0.021	0.215;0.003	0.045;0.543	0.158;0.031
Acceptance	0.173;0.018	0.260;0.000	0.317;0.000	0.213;0.003	0.253;000
Religion	0.242;0.001	0.236;0.001	0.337;0.000	0.401;0.000	0.279;0.000
Self-Blame	-0.116;0.115	-0.129;0.078	-0.206;0.005	-0.221;0.002	0.114;0.119
Total COPE	0.278;0.00	0.252;0.000	0.272;0.000	0.181;0.013	0.354;0.000

3.3 Multivariate Analysis

3.3.1. Results of Multiple Regression Analysis

In the multiple regression analyses with forced entry of all variables, those variables that showed significant relations in our bivariate analyses in section 3.2 were examined. Table 3.3.1. displays the results of the multiple regression models for the PTG sub-scales. As shown in table 3.3.1 multiple regression models explained about 60 - 65% of the total variance of subscales of PTG. In this multivariate model, several risk and protective factors surfaced as significant predictors of PTG subscales.

Protective factors that predicted significantly relating to others were work consistency with education, economic status of the participant, education level, number of children, self-efficacy; new possibilities were consistency of work with education, level of the Turkish, active coping style, religion and general self-efficacy of the participant; personal strengths were active coping style, religion and general self-efficacy of the participant; spiritual change was religion; to appreciation of life were level of Turkish, self-distraction, active coping and general self-efficacy of the participant ($P<0.05$).

Risk factors that were related to relating to others subscale were number of traumatic events; to new possibilities were the PTSD symptoms the person has been displaying; to personal strengths were self-blame as a coping style; to spiritual change was self-blame as a coping style; to appreciation of life was self-blame as a coping style ($P<0.05$).
Whereas no significant relationship was found for the variables of marital status, taking support, self-distraction, emotional and instrumental support, positive reframing, planning, cultural perception, working type and age ($P>0.05$).

Table 3.3.1. Results of Multiple Regression of PTG Subscales

Independent variable	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
Relating to others					
Consistency of work with Education	2.572	1.028	.168	2.501	.013
Marital Status (being married)	1.676	1.410	.077	1.189	.236
Economic status (High-middle)	3.625	1.494	.159	2.426	.016
Education Level	.250	.083	.189	2.992	.003
Number of Children	.852	.314	.188	2.710	.007
Number of traumatic experiences	-.343	.159	-.147	-2.161	.032
Taking support	1.569	1.390	.079	1.129	.261
COPE_Selfdistraction	.016	.346	.004	.046	.964
COPE_Active	.368	.391	.085	.941	.348
COPE_EmotionalSupport	.721	.443	.156	1.627	.106
COPE_InstrumentalSupport	.560	.395	.134	1.419	.158
COPE_PositiveReframing	-.240	.373	-.058	-.643	.521
COPE_Planning	.153	.438	.034	.348	.728
COPE_Acceptance	.099	.370	.022	.266	.790
COPE_Religion	.267	.294	.069	.909	.365
GSES	.212	.097	.165	2.186	.030
R=0.617; R square = 0.381 ; Durbin Watson=1.896					
New Possibilities					
Consistency of work with Education	1.727	.807	.140	2.139	.034
Economic Status (high-middle)	.964	1.815	.035	.531	.596
level of Turkish	2.324	.802	.192	2.899	.004
Cultural Perception	.332	1.877	.011	.177	.860
PCL	-.059	.024	-.179	-2.470	.015
COPE_Selfdistraction	.018	.275	.005	.064	.949
COPE_Active	.696	.306	.201	2.276	.024
COPE_EmotionalSupport	-.039	.340	-.011	-.116	.908
COPE_InstrumentalSupport	.225	.298	.067	.754	.452
COPE_PositiveReframing	.189	.295	.057	.642	.522
COPE_Planning	.225	.342	.063	.659	.511

COPE_Humor	.044	.258	.012	.171	.865
COPE_Acceptance	.108	.293	.030	.369	.713
COPE_Religion	.500	.231	.162	2.167	.032
GSES	.179	.079	.176	2.259	.025
R=0.630; R square = 0.397 ; Durbin Watson=1.936					
Personal Strengths					
Working Regularly or Voluntarily	.673	.613	.069	1.099	.274
Level of Turkish	1.135	.631	.116	1.799	.074
Cultural Perception	2.083	1.464	.089	1.422	.157
PCL	-.035	.020	-.130	-1.700	.091
COPE_Selfdistraction	.267	.216	.092	1.239	.217
COPE_Active	.543	.239	.194	2.271	.024
COPE_Emotional Support	-.001	.213	.000	-.004	.997
COPE_Positive Reframing	.060	.230	.022	.261	.795
COPE_Planning	.134	.272	.046	.492	.623
COPE_Humor	.302	.200	.102	1.508	.134
COPE_Acceptance	-.019	.228	-.007	-.083	.934
COPE_Religion	.591	.183	.237	3.228	.002
COPE_SelfBlame	-.408	.171	-.168	-2.390	.018
GSES	.128	.062	.155	2.045	.042
R=0.645; R square = 0.416 ; Durbin Watson=2.037					
Spiritual Change					
Level of Turkish	.103	.229	.033	.451	.652
Age	.008	.013	.045	.605	.546
Education Level	.030	.017	.109	1.718	.088
PCL	-.009	.007	-.104	-1.330	.185
COPE_Active	.148	.079	.165	1.887	.061
COPE_Substance	-.150	.139	-.074	-1.083	.281
COPE_PositiveReframing	-.005	.075	-.006	-.071	.943
COPE_Planning	.143	.091	.154	1.569	.118
COPE_Acceptance	-.067	.075	-.072	-.894	.372
COPE_Religion	.267	.061	.333	4.396	.000
COPE_SelfBlame	-.145	.058	-.187	-2.492	.014
GSES	.018	.020	.068	.896	.372
R=0.603; R square = 0.363; Durbin Watson=1.913					

Appreciation of life

Level of Turkish	1.345	.473	.185	2.843	.005
COPE_Selfdistraction	.430	.157	.199	2.740	.007
COPE_Active	.437	.179	.210	2.437	.016
COPE_PositiveReframing	.012	.176	.006	.071	.944
COPE_Planning	.259	.209	.120	1.240	.217
COPE_Humor	.012	.153	.005	.075	.940
COPE_Acceptance	-.063	.174	-.029	-.360	.719
COPE_Religion	.254	.140	.137	1.816	.071
COPE_SelfBlame	-.251	.120	-.139	-2.090	.038
GSES	.090	.045	.147	1.978	.050
R=0.600[a]; R square = 0.360 ; Durbin Watson= 2.149					

CHAPTER FOUR

DISCUSSION AND CONCLUSION

4.1. Discussion and conclusion

The main aim of this study was to explore the experience of PTG in the context of refugees and examine the factors that may contribute to its development. Therefore, personal factors such as sociodemographic information, self-efficacy and refuge history was examined closely. Factors related to the trauma such as the type of the trauma and the number of the experienced traumatic events were explored. Additionally, the role of coping strategies the survivor used, the symptoms of PTSD and the perceived social support was investigated. Several conclusions can be drawn from this research.

First, when the growth scores were examined through the domains of PTG, the highest growth was observed in the personal strength domain when the mean is divided to the number of the items. Followed by new opportunities, appreciation of life, relating to others and spiritual change.

The finding of the previous studies on this matter shows diversity on their results; some studies found the domain of relating to others as the highest (Wang, et al., 2013; Johnsen & Afgun, 2020), while some others, including review studies, observed the appreciation of life domain to have the strongest growth in most cases (Elderton, Berry & Chan, 2017). However, it is important to note that none of these studies were conducted with refugee populations, where there are multiple traumatic events encountered during the process and the environmental factors that follows the trauma, which could be quite different than single trauma incident. Additionally, considering that the number of the items in each domain is different, the mean given through the analysis could be misleading if it was not divided into the item number to reach a more accurate result. Although that this was the method used in this study; it was not the case in most of the aforementioned studies. On

the other hand, regardless of the order of the growth domains, the results are replicating the previous studies showing that the growth happens in all of the domains (Elderton, Berry & Chan, 2017).

Second, in the regression analysis GSES was a general predictor in all growth domains except the spiritual change domain. The results are consistent with Bandura's social cognitive theory, in which self-efficacy is hypothesized to work in a feedback loop, where it has an influential role to affect the behaviors and the surrounding environment of the individual and in return get effected by them. People with higher self-efficacy show higher self-regulations, being able to cope with more difficult situations compared to the ones with lower self-esteem, in addition to having higher skills of problem-solving by being able to set goals and plans to reach their aim (Bandura, 1986, 1997; eds by Wentzel & Miele, 2009). In a PTG study on cancer patients, such people are described as being less vulnerable to stressors for their ability to control the stressors before it reaches a damaging extend, and have more realistic expectations of themselves (Lotfi-Kashani, et al., 2014). Similar deduction can be made in the context of this study, where the sample is refugees who are subjected to many new difficult situations in the host country as well, after the multiple traumatic events that they have encountered in their homes. The refugee process is long and full of challenging situations, where having higher self-efficacy could have an influential role to affect the environment and the behaviors of the person as the theory suggest. In return, there is a clear relationship that can be observed between PTG and self-efficacy, which is also supported by the findings of the previous studies on this topic (Pollari, et al., 2021).

Additionally, many studies explored the mediating role of GSES for the development of PTG. In a study with the fathers of disabled children, GSES was found to have a significant mediating role between basic hope and PTG (Byra & Ćwirynkało, 2020). While some other studies, there are suggestion on the mediating role of the GSES between coping and PTG (Jurišová, 2016; Mazor, et al., 2016). However, the current study does not include any analysis examining the possible mediating role of the GSES. Further studies could be made to understand the nature of the relationship between GSES and PTG.

Third, congruent with the previous findings (Bussell & Naus, 2010; Stump & Smith, 2008; Bellizzi & Blank, 2006), analyses showed that adaptive coping styles were associated with higher growth and the maladaptive coping styles were associated with lower levels of growth. In terms of the significance of each item, four items were found to be significantly related with the following domains of PTG; active coping with new possibilities, personal strengths and appreciation of life; religious coping with new possibilities, personal strengths and spiritual change; self-blame with personal strengths, spiritual change and appreciation of life; self-distraction with appreciation of life. An interesting finding contrary with the expected results was the positive correlation of appreciation of life domain with the self-distraction coping style, which is categorized under maladaptive coping styles (Bellizzi & Blank, 2006). There are some evidences from the literature also supporting similar finding in relation to the positive effect of the self-distraction coping style (Aslam & Kamal, 2015).

Considering that the literature lacks studies exploring the relations of each coping style with the specific domains of growth, it is difficult to have a deep comparison between the current study's findings and the previous works that has been done on this field. However, many studies show that active coping (Aslam & Kamal, 2015) and religious coping (Lafarge, Usher, Mitchell & Fox, 2020; Prati & Pietrantoni, 2009) are found to be significantly related to the growth in general, with no specification on the domain of the growth. Moreover, in a longitudinal study on the religious coping, authors demonstrated that religion as a coping has a strong relationship with the social support but not restricted to it, where its effect goes beyond that contributing to the reducement of the psychological distress in the face of a stressful life events (García et al., 2017).

The current study also supported these findings, where 39% of the participants reported their faith as the most important thing that gave them strengths to overcome the traumatic experience; this was the highest rate among the other strength points the participants mentioned.

Self-blame as a coping style was negatively associated with PTG, which was found to be significant in this study. Previous studies also presented similar results (Aslam & Kamal, 2015). A theoretical explanation for this finding was presented in a review study by Ulloa et al. (2016), where the authors suggested that self-blame was related to the control of the person on the traumatic event (real, perceived or illusory). Control played an important role in the process, where people who acknowledged and internalized that they had no control over the event had higher levels of PTG. This finding was also supported by Frazier, Tashiro, et al. (2004). The study suggested that survivors who perceived a higher control in their recovery process have reported higher levels of positive change.

Fourth, PTSD symptoms assessed by PCL-5 was found to be negatively correlated with new possibilities domain of PTG. Some of the previous studies in the literature present similar results, suggesting a negative relationship between PTG and PTSD, meaning that it would be expected if the person is displaying higher levels of PTG, he should have the ability to overcome the cognitive disruption, leading to a decrease in the levels of PTSD symptoms (Tomich & Helgeson, 2004; Cadell, Regehr & Hemsworth, 2003). A study by Bagheri et al. (2018) confirms that PTG is associated with lower levels of PTSD. Another similar result is presented by a Linley et al. (2008), suggesting that positive changes predicted lower levels of PTSD symptoms, depression and anxiety.

However, it is important to take into account that some people who develop PTG may not have a distinct decrease in their level of distress. While there is a strong theoretical background for the negative correlation of PTG and PTSD, there are many studies showing adversary results (Jin, Xu & Liu, 2014-2; Jin, Xu & Liu, 2014 -2). The recent findings suggest that although these concepts seem to be opposite concepts, they are in fact mixed and coexisting phenomena (Sleijpen et all., 2016; Rizkalla & Segal, 2018; Shakespeare-Finch & Lurie-Beck, 2014).

On the other hand, studies exploring the specific domain of growth that could have this relationship with the PTSD symptoms is not explored in previous studies. Therefore, this finding seems to be particularly important for future intervention recommendations. Although no concrete conclusion could be made from this study, this finding is consistent

with the theoretical background. New possibilities domain is related to the person's coping with the stressful event, which in return the person realizes the new possibilities that is ahead. However, reasonably, a person with higher levels of PTSD symptoms might not be able to move forward and see beyond the traumatic event to find new possibilities that will might appear.

Fifth, the findings with respect to the number of the traumatic experiences showed a significant relationship; an increase in the traumatic experiences show a decrease in the levels of growth in the relating to others domain of PTG. Studies in the literature show different results, whereas some of the studies suggested multiple traumas were associated with growth (Peterson et al., 2008), other studies found similar growth levels regardless of the number of the traumatic experiences (Kılıç, Magruder & Koryürek, 2016). The research is limited on this area and further research is needed.

Sixth, number of children showed a positive correlation with relating to others domain of PTG. Studies shows that family plays an important role in the period aftermath of the traumatic event, where family related factors are found to be predictors for PTG (Svetina & Nastran, 2012). However, the children aspect seems to be specific for the current study and particularly interesting for being a novel finding. Through a deeper exploration on the subjective statements of the survivors on what made them overcome the difficulties of the traumatic events, it was found out that 24% of them reported the role of their closed ones from family and friends. The results were obtained through an open-ended question giving enough space for the participants to explain the nature of the support, where the results included statements such as "*my responsibility towards my children made me stronger to survive", being a single mother having to take care of four children by myself without a husband", "I have two children that I live for them" and "having hope by having my children with me".* Although no direct conclusion can be drawn from this study, based on the statements of the parents, a likely explanation could be that having children seems to put a purpose for the person to work harder and come through the difficulties, which seems to be the core element of PTG.

Many studies have explored the relationship of the social support that comes from the family, yet the number of the children and its possible relationship seems to be left unexplored. Therefore, the distinct nature of this relationship is unclear and further studies need to be conducted.

Seventh, the education years of the participant was found to have a significant relationship with relating to others domain of PTG, meaning that an increase in the years of education would be expected to have an increase in the level of PTG and vice versa. This result is parallel to some of the other studies in the literature, suggesting that people with higher education are found to be showing higher levels of growth (Danhauer et al. 2015; He, Xu & Wu, 2013). On the other hand, there are other controversy results as well in the literature, suggesting that level of education has no significant relationship with PTG (Lecher et al., 2013; Barskova & Oesterreich, 2009), while some other studies showed negative correlation between the years of education and growth (Thornton & Perez, 2006; Cordova et al., 2001). However, these studies also mentioned about the limitation of their population that could have affected the results. A study conducted by Schubert, Schmidt & Rosner (2016), suggested that the positive relationship between PTSD and PTG could be related to the intervention process that comes with the treatment of the PTSD patients, yet no definite conclusion is presented. Additionally, it is important to take into account that none of the mentioned studies were conducted with refugee populations.

There are many presented theories in the effort of explaining the nature of this relationship between the years of education and the growth. In the study of Kinsella et al. (2015), the given explanation was through the theories of cognitive reserve, suggesting that the education could play an important role to reserve the cognitive abilities of the person, allowing for a greater growth. Another possible explanation was given by He, Xu & Wu (2013), suggesting that the education could play an assisting role for the survivor's cognitions to understand and comprehend the traumatic event. One other likely explanation could be through its role in the PTSD symptoms, where the education seems to be indirectly influencing one's economic status, social place and resources, which in return better coping mechanisms to overcome the traumatic event. Studies show that adults with higher

educational level have lower levels of PTSD symptoms (Tang et al., 2017). Lower PTSD symptoms does not necessarily mean higher PTG but similar mechanisms could have a role in the process.

Eighth, the findings in respect to the economic level of the person found to be positively associated with the relating to others domain of PTG. This result is consistent with the previous studies (Zhang et al., 2019 - 1; Zhang et al., 2020; Yıldız, 2021). A meta-analysis by Tang et al. (2017) have presented supportive results as well. An explanation proposed by Zhang et al. (2019-1) was suggesting that the economic level had an indirect effect to the growth; their study found that individuals who are able to reach health services were having higher levels of PTG, in addition to those who are retired and have no economic burden on their shoulders. Another study also presented similar results, suggesting that households with lower income were associated with lower levels of PTG (Zhang et al, 2019-2). Consequently, people with higher economic status show higher levels of PTG. While causal assumptions cannot be made due to the cross-sectional nature of this study, a likely other explanation could be that higher economic status comes with access to many services that a refugee from a lower economic class would not be able to reach. As Maslow's (1943) hierarchy of needs theory suggests, basic physiological needs are located in the bottom of the pyramid, where they occupy the most important segment of the human need that the person cannot reach the higher levels without the fulfillment of this section in his life. In other words, a refugee who is struggling with the daily economic problems, trying to cover all the expenses of food, shelter, clothes and other basic needs can be in a more disadvantaged position compared a refugee with a better financial situation. Additionally, financial abilities of the person could also facilitate the process in each level of need. For example, in a city like Istanbul, a person needs a specific budget for the transportation to be able to socialize with others, which is one of the needs categorized under the level of belongingness and love needs. Therefore, financial income could be seen only as an indicator for a life style that comes with many advantages for the person, which could be an independent research area that is not covered within the scope of the current study.

Nineth, consistency of the person's work with his education was found to be significantly related to relating to others and new possibilities domains of growth. This is an important finding which was not explored in any of the previous refugee PTG studies to my knowledge. However, the literature is rich on studies exploring the relationship of education and job satisfaction. The findings of these studies replicate each other showing a positive relationship between education and job satisfaction (Gürbüz, 2007), in result with the psychological well-being of the person (Aazami, 2015). Moreover, in a study conducted by Pisani (2009), it was found that long education years were associated with significantly higher levels of general job satisfaction, sense of coherence, self-acceptance, purpose in life, personal growth and fewer physical and mental symptoms. Another study presented consistent results, suggesting that job satisfaction is associated with life satisfaction and with the social relations of the person (Weziak-Bialowolska, 2020), which gives a good explanation for the specific growth domain that the person might have. Further research is required to explore the role of the job-education consistency in the context of PTG.

Tenth, level of the Turkish language knowledge was found to be another predictor for the new possibilities and appreciation of life domains of growth. Language is usually one of the biggest barriers refugees face for both social and economic engagement in the host country. It has an important role in the integration process of the refugees and a key element for accessing any service needed in the country (Poulsen, 2020). Studies on mental health of the refugees show that lack of proficiency in the language of the host country is significantly related to the levels of distress the person has (Salvo & de C Williams, 2017). Additionally, review studies show that refugees who lack the language of the host country faces discrimination and an unjust treatment in health care centers (Mangrio & Forss, 2017).

Eleventh, in the current study no significant relationship was observed in the following variable; gender, age, marital status, working status and working type. Some of these findings are incongruent with the previous studies. However, a great number of these previous studies, has distinctive differences with the current study. As an example, most of

these studies were studies that categorized their sample as younger than 60 years old and older; where the younger than 60 years old found to have higher levels of PTG in comparison with the participants who are older than 60 (Arenliu, et al., 2019; Sim, et al., 2015). In the current study, the highest age group was chosen to be higher than 45 years old and it was the smallest group in terms of the number including very few cases that could be above the age of 60. Therefore, this different categorization of age or the sample's limitation to include more people of higher age could be a reason for this varying results. Another explanation provided for the age's relationship with PTG was explained in a study with breast cancer patients, where the authors suggested that the age be the factor leading to the difference on the way how cancer impact the person and the engagement of the person with this experience (Boyle et al., 2017).

Previous studies showed a significant relationship between marital status and PTG. Yet this significance was not found in this study. The important element in most of the studies emphasized by the authors was that the real effect comes from the nature of the relationship and the meaningfulness of the social support the person gets (Svetina & Nastran, 2012; Nouzari, Najafi & Momennasab, 2019; Aflakseir, Soltani & Mollazadeh, 2018). Additionally, gender was another variable that the current study failed to find a significant relationship, whereas there have been studies in the past that showed the existence of a significant relationship, which is modest but a reliable one. However, as their authors have stated, the studies had limitations in terms of lacking inclusion of some moderator variables that could have played an important role (Vishnevsky, et al., 2010).

In conclusion, although it is known that assessing PTG in refugees has many difficulties due to the ongoing traumas and the post-migration stressors, the findings of the current study supported previous findings with only few exceptions. Traumatic experiences of the person, PTSD symptoms, GSES and Coping style the person uses was found to have statistically significant relationship with the sub-categories with the domains of PTG. Regarding to the sociodemographic characteristics predicting PTG, while it was found that the main predictors included only consistency of the participant's work with their education, the economic status, level of the Turkish language, level of education and

number of children, the variables such as gender, age, marital status, working status, working type and cultural perception fail to show a significant association.

4.2. Limitations of the study

The limitations of this study should be taken into account. Firstly, the presented findings are only suggesting the existence of a relationship between the forementioned factors. However, longitudinal studies are need to understand the causal relationship how each factor could lead to the development of PTG. Secondly, the questions were all self-administered questions. Therefore, the accuracy of the answers and the certainty on the understanding of the people might compromise the findings. Third, even if the growth did not occur, it is known that individuals tend to see and focus on the positive after a traumatic event as a defense mechanism to protect themselves. Due to the nature of the PTG, it is not possible to observe and determine the growth through an external tool. The reliance has to be on the self-reporting of the survivor him/herself. Another important limitation is the sample related factors. Number of the participant were 257 refugees, which could be considered as a small number compared to the number of the population to be represented. Moreover, considering that the data was collected through an online platform with self-reported answers, it is expected that the sample included only the people with access to internet and literates who were able to read and understand the questions. Therefore, the study might have limited representativeness for the population.

4.3. Implications and future directions

Statistics show that exposure to traumatic events are increasing, both in terms of natural disasters and human made traumas. However, the resources are limited and not sufficient to meet the need. Especially, in the context of the refugees, the post-migration conditions seems to play the biggest role, as it was found in a study conducted by Tekeli-Yesil, et al. (2018), indicating that the mental health disorders were found to be less in the Syrian IDPs compared to the refugees living in Turkey. Therefore, knowing the factors that could

facilitate the process for the development of PTG and to decrease the rates of mental disorders is crucial to be able to use the resources efficiently.

The goal of the current study was to gain an understanding of some of the predictors to PTG among Syrian refugees living in Turkey. Although that the traumatic events might be inevitable, the way how to intervene and create the right circumstance could be an important point where we can create a change towards a growth. Therefore, it is important to focus on the development of intervention programs that could facilitate the process of post traumatic growth.

As mentioned earlier, according to the results of the current study, the growth was found to be mostly higher in the domains of personal strength and new possibilities in this population. Thus, intervention programs, increasing the refugee's personal abilities and creating new possibilities in the host country, should be conducted. Similarly, based on the same finding, the focus during clinical practice should also take a special attention for the personal strengths of the person and how to utilize them in their new life. The results of the GSES scores are also supporting this finding, where the people with higher levels of self-efficacy shows higher levels of growth. Meaning, that interventions that would enhance the refugees' skills and abilities, qualifying them in different areas of life is needed. Especially, the findings suggest that language plays a significant role in the development of PTG and it could be one of the programs that could be provided more systematically and more availably for the refugees to increase their self-efficacy and open new opportunities to get integrated in the society and go forwards in life.

Moreover, studies show that in most cases refugees have difficulties in accessing mental health services for many reasons, which could be due to the language barrier, or economic difficulties or cultural differences or the lack of awareness on the available services (Lindert et al, 2008; Priebe et al., 2013; Giacco & Priebe, 2018; cited in WHO, 2018). The current study, similar to the previous findings, showed that PCL scores were negatively correlated with PTG, where the negative symptoms are getting higher, the PTG levels gets lower. These findings indicate the high necessity of psychological interventions, psychosocial support and raising awareness programs. It would be helpful to conduct easily

accessible mental health services, which are culturally adapted and provided in the native language of the refugee.

It is important to emphasize that while this study gives an insight into some of these aforementioned factors, multiple fields of investigation still remain. As noted in the limitations section as well, future research with a more divers sample could be conducted. Additionally, studies show that the literature lacks evidence for intervention programs and treatments for mental health disorders in refugees (WHO, 2018) Thus, another significant area of future research would be to explore the role of specific intervention programs that could help the refugees to have a better management of the post-migration stressors.

Having the knowledge of the factors that might contribute for the development of the growth, in addition to the creation of the needed circumstance based on this knowledge, would lead to have healthier individuals in the society, rather than having a high prevalence of disorders. Therefore, further research and intervention programs are needed.

REFERENCES

Aazami, S., Shamsuddin, K., Akmal, S., & Azami, G. (2015). The relationship between job satisfaction and psychological/physical health among Malaysian working women. *The Malaysian journal of medical sciences: MJMS*, *22*(4), 40.

Abraído-Lanza, A. F., Guier, C., & Colón, R. M. (1998). Psychological thriving among Latinas with chronic illness. *Journal of Social Issues*, 54(2), 405-424.

Affleck, G., & Tennen, H. (1996). Construing benefits from adversity: Adaptotional significance and disposltional underpinnings. *Journal of personality*, 64(4), 899-922.

Aflakseir, A., Soltani, S., & Mollazadeh, J. (2018). Posttraumatic growth, meaningfulness, and social support in women with breast cancer. *International Journal of Cancer Management*, *11*(10).

Alonso, J., Ferrer, M., Romera, B., Vilagut, G., Angermeyer, M., Bernert, S Brugha TS, Taub N, McColgen Z, de Girolamo G, Polidori G, Mazzi F, De Graaf R, Vollebergh WA, Buist-Bowman MA, Demyttenaere K, Gasquet I, Haro JM, Palacín C, Autonell J, Katz SJ, Kessler RC, Kovess V, Lépine JP, Arbabzadeh-Bouchez S, Ormel J, Bruffaerts R (2002). The European Study of the Epidemiology of Mental Disorders (ESEMeD/MHEDEA 2000) project: rationale and methods. *International journal of methods in psychiatric research,* 11(2), 55-67.

Amer, M. M., & Awad, G. H. (Eds.). (2015). Handbook of Arab American psychology.

American Psychiatric Association (2018). *Mental Health Facts on Refugees, Asylum-seekers, & Survivors of Forced Displacement.*

American Psychiatric Association. (2013). Diagnostic and statistical manual of mental disorders (5th ed.). https://doi.org/10.1176/appi.books.9780890425596

Arenliu, A., Shala-Kastrati, F., Berisha Avdiu, V., & Landsman, M. (2019). Posttraumatic growth among family members with missing persons from war in Kosovo: Association with social support and community involvement. *OMEGA-Journal of Death and Dying*, *80*(1), 35-48.

Arıkan, G. (2007). Prevalence of traumatic events and determinants of posttraumatic growth in university students (Master's thesis).

Askay, S. W., & Magyar-Russell, G. (2009). Post-traumatic growth and spirituality in burn recovery. *International review of psychiatry*, *21*(6), 570-579.

Aslam, N., & Kamal, A. (2015). Coping strategies as a predictors of psychological distress and post traumatic growth among flood affected individuals. *Journal of Alcoholism & Drug Dependence*.

Assembly, P. (2015). Countries of transit: meeting new migration and asylum challenges.

Atwoli, L., Stein, D. J., Koenen, K. C., & McLaughlin, K. A. (2015). Epidemiology of posttraumatic stress disorder: prevalence, correlates and consequences. *Current opinion in psychiatry*, *28*(4), 307.

Bagheri, S. H. S., Iranmanesh, S., Rayyani, M., Dehghan, M., Tirgari, B., & Hosseini, S. H. (2018). Post-traumatic stress and growth among CPR survivors in the southeast of Iran. *International journal of adolescent medicine and health*, *32*(3).

Barlow, M. R., & Hetzel-Riggin, M. D. (2018). Predicting posttraumatic growth in survivors of interpersonal trauma: Gender role adherence is more important than gender. *Psychology of Men & Masculinity*, *19*(3), 446.

Barskova, T., and Oesterreich, R. (2009). Posttraumatic growth in people living with a serious medical condition and its relations to physical and mental health: a systematic review. Disabil. Rehabil. 31, 1709–1733. doi: 10.1080/09638280902738441

Başoğlu, M., Mineka, S., Paker, M., Aker, T., Livanou, M., & Gök, Ş. (1997). Psychological preparedness for trauma as a protective factor in survivors of torture. *Psychological medicine*, *27*(6), 1421-1433.

Baumstarck, K., Alessandrini, M., Hamidou, Z., Auquier, P., Leroy, T., & Boyer, L. (2017). Assessment of coping: a new french four-factor structure of the brief COPE inventory. *Health and quality of life outcomes*, *15*(1), 8.

Beiser, M., & Wickrama, K. (2004). Trauma, time and mental health: A study of temporal reintegration and Depressive Disorder among Southeast Asian refugees. *Psychological Medicine,* 34, 899–910.

Bellizzi, K. M., & Blank, T. O. (2006). Predicting posttraumatic growth in breast cancer survivors. *Health Psychology*, *25*(1), 47.

Benjet, C., Bromet, E., Karam, E. G., Kessler, R. C., McLaughlin, K. A., Ruscio, A. M., Shahly V., Stein, D.J., Petukhova, M., Hill, E., Alonso, J., Atwoli, L., Bunting, B., Bruffaerts, R., Caldas-de-Almeida, J.M., de Girolamo, G., Florescu, S., Gureje, O., Huang, Lepine, Y.P, Kawakami, N., Kovess-Masfety V., Medina-Mora, M.E., Navarro-Mateu, F., Piazza, M., Posada-Villa, J., Scott, K.M., Shalev, A., Slade, T., ten Have, M.,Torres, Y., Viana, M.C., Zarkov, Z., K C Koenen, K.C., (2016). The epidemiology of traumatic event exposure worldwide: results from the World Mental Health Survey Consortium. *Psychological medicine*, 46(2), 327-343.

Bernstein, M., & Pfefferbaum, B. (2018). Posttraumatic growth as a response to natural disasters in children and adolescents. *Current psychiatry reports*, *20*(5), 1-10.

Betancourt, T., Borisova, I., Williams, T., Meyers-Ohki, S., RubinSmith, J., Annan, J., & Kohrt, B. (2013). Psychosocial adjustment and mental health in former child soldiers: Systematic review of the literature and recommendations for future research. *Journal of ChildPsychology and Psychiatry*,54,17–36

Blevins, C. A., Weathers, F. W., Davis, M. T., Witte, T. K., & Domino, J. L. (2015). The Posttraumatic Stress Disorder Checklist for DSM-5 (PCL-5): Development and initial psychometric evaluation. *Journal of Traumatic Stress,* 28, 489–498. doi:10.1002/jts.22059

Bostock, L., Sheikh, A. I., & Barton, S. (2009). Posttraumatic growth and optimism in health-related trauma: A systematic review. *Journal of Clinical Psychology in Medical Settings*, *16*(4), 281-296.

Bourassa KJ, Smolenski DJ, Edwards-Stewart A, Campbell SB, Reger GM, Norr AM. The impact of prolonged exposure therapy on social support and PTSD symptoms. *J Affect Disord*. 2020 Jan 1;260:410-417. doi: 10.1016/j.jad.2019.09.036. Epub 2019 Sep 10. PMID: 31539674; PMCID: PMC7570950.

Bovin, M. J., Marx, B. P., Weathers, F. W., Gallagher, M. W., Rodriguez, P., Schnurr, P. P., & Keane, T. M. (2016). Psychometric properties of the PTSD Checklist for Diagnostic and Statistical Manual of Mental Disorders-Fifth Edition (PCL5) in Veterans. *Psychological Assessment*, 28, 1379-1391. doi:10.1037/pas0000254

Boyle, C. C., Stanton, A. L., Ganz, P. A., & Bower, J. E. (2017). Posttraumatic growth in breast cancer survivors: does age matter?. *Psycho-oncology*, *26*(6), 800-807.

Bussell, V. A., & Naus, M. J. (2010). A longitudinal investigation of coping and posttraumatic growth in breast cancer survivors. *Journal of psychosocial oncology*, *28*(1), 61-78.

Byra, S., & Ćwirynkało, K. (2020). Do beliefs influence posttraumatic growth in fathers of children with intellectual disabilities?. *Research in Developmental Disabilities*, *104*, 103687.

Cadell, S., Regehr, C., & Hemsworth, D. (2003). Factors contributing to posttraumatic growth: A proposed structural equation model. *American Journal of Orthopsychiatry*, *73*(3), 279-287.

Calhoun, L. G., & Tedeschi, R. G. (2013). *Posttraumatic growth in clinical practice*. Routledge.

Cann, A., Calhoun, L. G., Tedeschi, R. G., Taku, K., Vishnevsky, T., Triplett, K. N., & Danhauer, S. C. (2010). A short form of the Posttraumatic Growth Inventory. Anxiety, Stress, & Coping, 23(2), 127-137.

Carver, C. S., Scheier, M. F., & Weintraub, J. K. (1989). Assessing coping strategies: a theoretically based approach. *Journal of personality and social psychology*, *56*(2), 267.

Chan, C. S., & Rhodes, J. E. (2013). Religious coping, posttraumatic stress, psychological distress, and posttraumatic growth among female survivors four years after Hurricane Katrina. *Journal of traumatic stress*, *26*(2), 257-265.

Chan, K. J., Young, M. Y., & Sharif, N. (2016). Well-being after trauma: A review of posttraumatic growth among refugees. *Canadian Psychology/psychologie canadienne*, 57(4), 291.

Charlson, F., van Ommeren, M., Flaxman, A., Cornett, J., Whiteford, H., & Saxena, S. (2019). New WHO prevalence estimates of mental disorders in conflict settings: a systematic review and meta-analysis. *The Lancet*, *394*(10194), 240-248.

Cieslak, R., Benight, C., Schmidt, N., Luszczynska, A., Curtin, E., Clark, R. A., & Kissinger, P. (2009). Predicting posttraumatic growth among Hurricane Katrina survivors living with HIV: The role of self-efficacy, social support, and PTSD symptoms. *Anxiety, Stress, & Coping*, *22*(4), 449-463.

Clapp, J. D., Kemp, J. J., Cox, K. S., & Tuerk, P. W. (2016). Patterns of change in response to prolonged exposure: Implications for treatment outcome. Depression and Anxiety, 33, 807-815. doi: 10.1002/da.22534

Cohen, J., Kanuri, N., Kieschnick, D., Blasey, C., Taylor, C. B., Kuhn, E., Lavoie, C., Ryu, D., Gibbs, E., Ruzek, J., & Newman, M. (2014). Preliminary evaluation of the psychometric properties of the PTSD Checklist for DSM-5. *Paper presented at the 48th Annual Convention of the Association of Behavior and Cognitive Therapies, Philadelphia,* PA. doi:10.13140/2.1.4448.5444

Cordova, M. J., Cunningham, L. L., Carlson, C. R., & Andrykowski, M. A. (2001). Posttraumatic growth following breast cancer: a controlled comparison study. *Health psychology*, *20*(3), 176.

Crandall, A., Rahim, H. F., & Yount, K. M. (2016). Validation of the general self-efficacy scale among Qatari young women. East Mediterr Health J, 21(12), 891–6.

Danhauer, S. C., Russell, G., Case, L. D., Sohl, S. J., Tedeschi, R. G., Addington, E. L., Triplett, K., Van Zee, K., Naftalis, E., Levine, B., Avis, N.E., (2015). Trajectories of posttraumatic growth and associated characteristics in women with breast cancer. *Annals of Behavioral Medicine*, *49*(5), 650-659.

De las Cuevas, C., & Peñate, W. (2015). Validation of the General Self-Efficacy Scale in psychiatric outpatient care. *Psicothema*, 410-415.

Edwards, D., Sakasa, P., & Van Wyk, G. (2005). Trauma, resilience and vulnerability to PTSD: A review and clinical case analysis. *Journal of psychology in Africa*, *15*(2), 143-153.

Elderton, A., Berry, A., & Chan, C. (2017). A systematic review of posttraumatic growth in survivors of interpersonal violence in adulthood. *Trauma, Violence, & Abuse*, *18*(2), 223-236.

Folkman, S., & Moskowitz, J. T. (2004). Coping: Pitfalls and promise. *Annu. Rev. Psychol.*, *55*, 745-774.

Francesch, M. C. (2008). *Alert 2008!: Report on Conflicts, Human Rights and Peacebuilding*. Icaria Editorial/Escola de Cultura de Pau.

Frankl, V. E. (2011). *Man's search for ultimate meaning*. Random House.

Frazier, P., Tashiro, T., Berman, M., Steger, M., & Long, J. (2004). Correlates of levels and patterns of positive life changes following sexual assault. *Journal of consulting and clinical psychology*, *72*(1), 19.

Galovski, T. E., Harik, J. M., Blain, L. M., Farmer, C., Turner, D., & Houle, T. (2016). Identifying patterns and predictors of PTSD and depressive symptom change during cognitive processing therapy. Cognitive Therapy and Research, 40, 617-626. doi 10.1007/s10608-016-9770-4

García, F. E., & Wlodarczyk, A. (2016). Psychometric properties of the posttraumatic growth inventory–short form among Chilean adults. *Journal of Loss and Trauma*, *21*(4), 303-314.

García, F. E., Páez, D., Reyes-Reyes, A., & Álvarez, R. (2017). Religious coping as moderator of psychological responses to stressful events: A longitudinal study. *Religions*, *8*(4), 62.

Giacco, D., & Priebe, S. (2018). Mental health care for adult refugees in high-income countries. *Epidemiology and psychiatric sciences*, *27*(2), 109-116.

Gürbüz, A. (2007). An assesment on the effect of education level on the job satisfaction from the toursim sector point of view.

Haar, R. J., Wang, K., Venters, H., Salonen, S., Patel, R., Nelson, T., ... & Parmar, P. K. (2019). Documentation of human rights abuses among Rohingya refugees from Myanmar. *Conflict and health*, *13*(1), 1-14.

Hamdan-Mansour, A. M., Al Badawi, T. H., Haourani, E. M., & Marmash, L. R. (2013). Depression, psychological distress and coping skills among patients diagnosed with type II diabetes mellitus. *Life Science Journal*, *10*(4).

He, L., Xu, J., & Wu, Z. (2013). Coping strategies as a mediator of posttraumatic growth among adult survivors of the Wenchuan earthquake. *PloS one*, *8*(12), e84164.

Herman, J. L. (2015). *Trauma and recovery: The aftermath of violence--from domestic abuse to political terror*. Hachette uK.

Hobfoll, S. E., Hall, B., Horsey, K. J., & Lamoureux, B. E. (2011). Resilience in the face of terrorism: linking resource investmentwith engagement. *Resilience and mental health: Challenges across the lifespan*, 253.

Ibrahim, H., Ertl, V., Catani, C., Ismail, A. A., & Neuner, F. (2018). The validity of Posttraumatic Stress Disorder Checklist for DSM-5 (PCL-5) as screening instrument with Kurdish and Arab displaced populations living in the Kurdistan region of Iraq. *BMC psychiatry*, *18*(1), 1-8.

Janoff-Bulman, R. (2010). *Shattered assumptions*. Simon and Schuster.

Jeffrey, A., & Jakala, M. (2012). Beyond trial justice in the former Yugoslavia. *The Geographical Journal*, *178*(4), 290-295.

Jia, X., Liu, X., Ying, L., & Lin, C. (2017). Longitudinal relationships between social support and posttraumatic growth among adolescent survivors of the Wenchuan earthquake. *Frontiers in psychology*, *8*, 1275.

Jin, Y., Xu, J., & Liu, D. (2014). The relationship between post traumatic stress disorder and post traumatic growth: gender differences in PTG and PTSD subgroups. *Social psychiatry and psychiatric epidemiology*, *49*(12), 1903-1910.

Jin, Y., Xu, J., Liu, H., & Liu, D. (2014). Posttraumatic stress disorder and posttraumatic growth among adult survivors of Wenchuan earthquake after 1 year: Prevalence and correlates. *Archives of Psychiatric Nursing*, *28*(1), 67-73.

Johnsen, I., & Afgun, K. (2020). Complicated Grief and Post-Traumatic Growth in Traumatically Bereaved Siblings and Close Friends. *Journal of Loss and Trauma*, 1-14.

Joseph, S., & Linley, P. A. (2005). Positive adjustment to threatening events: An organismic valuing theory of growth through adversity. *Review of general psychology*, *9*(3), 262-280.

Joseph, S., Williams, R., & Yule, W. (1993). Changes in outlook following disaster: The preliminary development of a measure to assess positive and negative responses. Journal of traumatic stress, 6(2), 271-279.

Jurišová, E. (2016). Coping strategies and post-traumatic growth in paramedics: moderating effect of specific self-efficacy and positive/negative affectivity. *Studia Psychologica*, *58*(4), 259-275.

Kamen, C., Vorasarun, C., Canning, T., Kienitz, E., Weiss, C., Flores, S., Etter, D., Lee, S., Gore-Felton, C. (2016). The impact of stigma and social support on development of post-traumatic growth among persons living with HIV. *Journal of clinical psychology in medical settings*, *23*(2), 126-134.

Karanci, A. N., Işıklı, S., Aker, A. T., Gül, E. İ., Erkan, B. B., Özkol, H., & Güzel, H. Y. (2012). Personality, posttraumatic stress and trauma type: factors contributing to posttraumatic growth and its domains in a Turkish community sample. *European journal of psychotraumatology*, *3*(1), 17303.

Keller, A. S. (2006). Torture in Abu Ghraib. *Perspectives in biology and medicine*, *49*(4), 553-569.

Kessler, R. C., Aguilar-Gaxiola, S., Alonso, J., Benjet, C., Bromet, E. J., Cardoso, G., Cardoso, G., Degenhardt, L., de Girolamo, G., Dinolova, R.V., Ferry, F., Florescu, S., Gureje, O., Haro, J.M., Huang, Y., Karam, E.G., Kawakami, N., Lee, S., Lepine, J.P., Levinson, D., Navarro-Mateu, F., Pennell B.E., Piazza, M., Posada-Villa, J., Scott, K.M., Stein, D.J., Ten Have, M.,Torres, Y., Viana M.C., Petukhova M.V., Sampson, N.A., Zaslavsky, A.M. & Koenen, K. C. (2017). Trauma and PTSD in the WHO world mental health surveys. *European journal of psychotraumatology*, *8*(sup5), 1353383.

Kılıç, C., Magruder, K. M., & Koryürek, M. M. (2016). Does trauma type relate to posttraumatic growth after war? A pilot study of young Iraqi war survivors living in Turkey. *Transcultural psychiatry*, *53*(1), 110-123.

Kinsella, E. L., Grace, J. J., Muldoon, O. T., & Fortune, D. G. (2015). Post-traumatic growth following acquired brain injury: a systematic review and meta-analysis. *Frontiers in Psychology*, *6*, 1162.

Knipscheer, J., Sleijpen, M., Frank, L., de Graaf, R., Kleber, R., Ten Have, M., & Dückers, M. (2020). Prevalence of potentially traumatic events, other life events and

subsequent reactions indicative for posttraumatic stress disorder in the Netherlands: a general population study based on the trauma screening questionnaire. *International journal of environmental research and public health*, *17*(5), 1725.

Lafarge, C., Usher, L., Mitchell, K., & Fox, P. (2020). The role of rumination in adjusting to termination of pregnancy for fetal abnormality: Rumination as a predictor and mediator of posttraumatic growth. *Psychological Trauma: Theory, Research, Practice, and Policy*, *12*(1), 101.

Lazarus M, Folkman S. Stress, appraisal and coping. *New York: Springer*; 1984.

Lechner, S. C., Zakowski, S. G., Antoni, M. H., Greenhawt, M., Block, K., & Block, P. (2003). Do sociodemographic and disease-related variables influence benefit-finding in cancer patients?. *Psycho-Oncology: Journal of the Psychological, Social and Behavioral Dimensions of Cancer*, *12*(5), 491-499.

Lee, D., Yu, E. S., & Kim, N. H. (2020). Resilience as a mediator in the relationship between posttraumatic stress and posttraumatic growth among adult accident or crime victims: the moderated mediating effect of childhood trauma. *European journal of psychotraumatology*, *11*(1), 1704563.

Leung, Y. W., Alter, D. A., Prior, P. L., Stewart, D. E., Irvine, J., & Grace, S. L. (2012). Posttraumatic growth in coronary artery disease outpatients: Relationship to degree of trauma and health service use. *Journal of psychosomatic research*, *72*(4), 293-299.

Lindert, J., Schouler-Ocak, M., Heinz, A., & Priebe, S. (2008). Mental health, health care utilisation of migrants in Europe. *European Psychiatry*, *23*(S1), s114-s20.

Linley, P. A., & Joseph, S. (2004). Positive change following trauma and adversity: A review. Journal of traumatic stress: official publication of the international society for traumatic stress studies, 17(1), 11-21.

Linley, P. A., Joseph, S., & Goodfellow, B. (2008). Positive changes in outlook following trauma and their relationship to subsequent posttraumatic stress, depression, and anxiety. *Journal of Social and Clinical Psychology*, *27*(8), 877-891.

Lotfi-Kashani, F., Vaziri, S., Akbari, M. E., Kazemi-Zanjani, N., & Shamkoeyan, L. (2014). Predicting post traumatic growth based upon self-efficacy and perceived social support in cancer patients. *Iranian journal of cancer prevention*, *7*(3), 115.

Mahdi, H. K., Prihadi, K., & Hashim, S. (2014). Posttraumatic Growth and Resilience after a Prolonged War: A Study in Baghdad, Iraq. *International Journal of Evaluation and Research in Education*, *3*(3), 197-204.

Mărean, C. (2016). The relationship between secondary traumatic stress and personal posttraumatic growth: Personality factors as moderators. Journal of Adult Development, 23(2), 120-128.

Mărean, C. (2016). The relationship between secondary traumatic stress and personal posttraumatic growth: Personality factors as moderators. Journal of Adult Development, 23(2), 120-128.

Malhotra, M., & Chebiyan, S. (2016). Posttraumatic growth: Positive changes following adversity-an overview. *International Journal of Psychology and Behavioral Sciences*, *6*(3), 109-118

Mangrio, E., & Forss, K. S. (2017). Refugees' experiences of healthcare in the host country: a scoping review. *BMC health services research*, *17*(1), 1-16.

Martin, L. J. (2017). Identification and Facilitation Of Posttraumatic Growth After Burn Injury In An Adult Population In Western Australia.

Martin, L. J. (2017). Identıfıcatıon And Facılıtatıon Of Posttraumatıc Growth After Burn Injury In An Adult Populatıon In Western Australıa.

Maslow, A. H. (1943). A theory of human motivation. *Psychological review*, *50*(4), 370.

Mazor, Y., Gelkopf, M., Mueser, K. T., & Roe, D. (2016). Posttraumatic growth in psychosis. *Frontiers in Psychiatry*, *7*, 202.

McMillen, C., Howard, M. O., Nower, L., & Chung, S. (2001). Positive by-products of the struggle with chemical dependency. *Journal of Substance Abuse Treatment*, 20(1), 69-

McMillen, J. C., & Fisher, R. H. (1998). The Perceived Benefit Scales: Measuring perceived positive life changes after negative events. *Social Work Research*, 22(3), 173-187.

Medeiros, E. D. D., Couto, R. N., Fonsêca, P. N. D., Silva, P. G. N. D., & Medeiros, P. C. B. D. (2017). Posttraumatic Growth Inventory (PTGI): Adaptação e validade fatorial no nordeste brasileiro. *Psico-USF*, *22*(3), 449-460.

Miller WR. The phenomenon of quantum change. J Clin Psychol. 2004 May;60(5):453-60. doi: 10.1002/jclp.20000. PMID: 15048692.

Mystakidou, K., Parpa, E., Tsilika, E., Galanos, A., & Vlahos, L. (2008). General perceived self-efficacy: validation analysis in Greek cancer patients. *Supportive Care in Cancer*, *16*(12), 1317-1322.

National Center for PTSD. (2016). PTSD Checklist for DSM-5 (PCL-5). Retrieved from www.ptsd.va.gov/professional/ assessment/adult-sr/ptsd-checklist.asp

Nawel, H., & Elisabeth, S. (2015). Adaptation and validation of the Tunisian version of the Brief COPE Scale. *European Health Psychologist*, *17*(S), 783.

Nenova, M., DuHamel, K., Zemon, V., Rini, C., & Redd, W. H. (2013). Posttraumatic growth, social support, and social constraint in hematopoietic stem cell transplant survivors. *Psycho-oncology*, *22*(1), 195-202.

Nietzsche, F. W. (2005). *Nietzsche: The Anti-Christ, Ecce Homo, Twilight of the Idols: And Other Writings*. Cambridge University Press.

Ning, L., Guan, S., & Liu, J. (2017). Impact of personality and social support on posttraumatic stress disorder after traffic accidents. *Medicine*, *96*(34).

Nishi, D., Matsuoka, Y., & Kim, Y. (2010). Posttraumatic growth, posttraumatic stress disorder and resilience of motor vehicle accident survivors. *Biopsychosocial medicine*, *4*(1), 1-6.

Nouzari, R., Najafi, S. S., & Momennasab, M. (2019). Post-traumatic growth among family caregivers of cancer patients and its association with social support and hope. *International journal of community based nursing and midwifery*, *7*(4), 319.

O'Leary, V. E., & Ickovics, J. R. (1995). Resilience and thriving in response to challenge: an opportunity for a paradigm shift in women's health. *Women's health (Hillsdale, NJ)*, *1*(2), 121-142.

Oppedal, B., & Idsoe, T. (2015). The role of social support in the acculturation and mental health of unaccompanied minor asylum seekers. *Scandinavian Journal of Psychology*, 56, 203–211.

Paredes, A. C., & Pereira, M. G. (2018). Spirituality, distress and posttraumatic growth in breast cancer patients. *Journal of religion and health*, *57*(5), 1606-1617.

Park, C. L., Cohen, L. H., & Murch, R. L. (1996). Assessment and prediction of stress-related growth. *Journal of personality*, 64(1), 71-105.

Peterson, C., Park, N., Pole, N., D'Andrea, W., & Seligman, M. E. (2008). Strengths of character and posttraumatic growth. *Journal of Traumatic Stress: Official Publication of the International Society for Traumatic Stress Studies*, *21*(2), 214-217.

Pisani, K. (2009). Education as related to job satisfaction and health.

Pollari, C. D., Brite, J., Brackbill, R. M., Gargano, L. M., Adams, S. W., Russo-Netzer, P., ... & Cone, J. E. (2021). World Trade Center exposure and posttraumatic growth: assessing positive psychological change 15 years after 9/11. *International journal of environmental research and public health*, *18*(1), 104.

Poulsen, D. V., Pálsdóttir, A. M., Christensen, S. I., Wilson, L., & Uldall, S. W. (2020). Therapeutic Nature Activities: A Step Toward the Labor Market for Traumatized Refugees. *International Journal of Environmental Research and Public Health*, *17*(20), 7542.

Prati, G., & Pietrantoni, L. (2009). Optimism, social support, and coping strategies as factors contributing to posttraumatic growth: A meta-analysis. Journal of loss and trauma, 14(5), 364-388.

Price M, Lancaster CL, Gros DF, Legrand AC, van Stolk-Cooke K, Acierno R. (2018) An Examination of Social Support and PTSD Treatment Response During Prolonged Exposure. *Psychiatry*.81(3), 258-270.

Priebe, S., Giacco, D., & El-Nagib, R. (2016). *Public health aspects of mental health among migrants and refugees: a review of the evidence on mental health care for refugees, asylum seekers and irregular migrants in the WHO European Region*. World Health Organization. Regional Office for Europe.

Priebe, S., Matanov, A., Barros, H., Canavan, R., Gabor, E., Greacen, T., ... & Gaddini, A. (2013). Mental health-care provision for marginalized groups across Europe: findings from the PROMO study. *The European Journal of Public Health*, *23*(1), 97-103.

Resnicow, K., & Page, S. E. (2008). Embracing chaos and complexity: a quantum change for public health. *American journal of public health*, *98*(8), 1382-1389.

Richmond, N. L., Meyer, M. L., Hollowell, A. G., Isenberg, E. E., Domeier, R. M., Swor, R. A., ... & Platts-Mills, T. F. (2018). Social support and pain outcomes after trauma exposure among older adults: A multicenter longitudinal study. *The Clinical journal of pain*, *34*(4), 366.

Rizkalla, N., & Segal, S. P. (2018). Well-being and posttraumatic growth among syrian refugees in Jordan. Journal of traumatic stress, 31(2), 213-222.

Rollins, T. (2016). The unravelling of Syrian's Eastern Ghouta. Al Jazeera. Retrevied 2021, March 14

Sack, W., Him, C., & Dickason, D. (1999). Twelve-year followup study of Khmer youths who suffered massive war trauma as children. *Journal of the American Academy of Child and Adolescent Psychiatry*, 38, 1173–1179

Salvo, T., & de C Williams, A. C. (2017). "If I speak English, what am I? I am full man, me": Emotional impact and barriers for refugees and asylum seekers learning English. *Transcultural psychiatry*, *54*(5-6), 733-755.

Saxon, L., Makhashvili, N., Chikovani, I., Seguin, M., McKee, M., Patel, V., Bisson, J. & Roberts, B. (2017). Coping strategies and mental health outcomes of conflict-affected persons in the Republic of Georgia. *Epidemiology and psychiatric sciences*, *26*(3), 276-286.

Schaefer, L. M., Howell, K. H., Schwartz, L. E., Bottomley, J. S., & Crossnine, C. B. (2018). A concurrent examination of protective factors associated with resilience and posttraumatic growth following childhood victimization. *Child abuse & neglect*, *85*, 17-27.

Schick, M., Morina, N., Mistridis, P., Schnyder, U., Bryant, R. A., & Nickerson, A. (2018). Changes in post-migration living difficulties predict treatment outcome in traumatized refugees. Frontiers in psychiatry, 9, 476.

Schubert, C. F., Schmidt, U., & Rosner, R. (2016). Posttraumatic growth in populations with posttraumatic stress disorder—A systematic review on growth-related psychological constructs and biological variables. *Clinical psychology & psychotherapy*, *23*(6), 469-486.

Schwarzer R & Jerusalem M. Generalized Self-Efficacy scale. In J. Weinman, S. Wright, & M. Johnston, Measures in health psychology: A user's portfolio. Causal and control beliefs (pp. 35-37). 1995. Windsor, England: NFER-NELSON.

Sekely, A., & Zakzanis, K. K. (2019). The relationship between post-traumatic growth and return to work following mild traumatic brain injury. *Disability and rehabilitation*, *41*(22), 2669-2675.

Seligman, M. E. (2012). *Flourish: A visionary new understanding of happiness and well-being*. Simon and Schuster.

Shakespeare-Finch, J., & Lurie-Beck, J. (2014). A meta-analytic clarification of the relationship between posttraumatic growth and symptoms of posttraumatic distress disorder. Journal of anxiety disorders, 28(2), 223-229.

Sim, B. Y., Lee, Y. W., Kim, H., & Kim, S. H. (2015). Post-traumatic growth in stomach cancer survivors: Prevalence, correlates and relationship with health-related quality of life. *European Journal of Oncology Nursing*, *19*(3), 230-236.

Sleijpen, M., Haagen, J., Mooren, T., & Kleber, R. J. (2016). Growing from experience: an exploratory study of posttraumatic growth in adolescent refugees. European Journal of Psychotraumatology, 7(1), 28698.

Stump, M. J., & Smith, J. E. (2008). The relationship between posttraumatic growth and substance use in homeless women with histories of traumatic experience. *American Journal on Addictions*, *17*(6), 478-487.

Suffocation and Isolation: 15 Years of Israeli Blockade on Gaza. (2021, January 24). Reliefweb. Retrieved March 14, 2021, from https://reliefweb.int/report/occupied-palestinian-territory/suffocation-and-isolation-15-years-israeli-blockade-gaza

Suriye Raporu (2017). IHH.

Svetina, M., & Nastran, K. (2012). Family relationships and post-traumatic growth in breast cancer patients. *Psychiatria Danubina*, *24*(3.), 298-306.

Swart, I. (2010). *The influence of trauma on musicians* (Doctoral dissertation, University of Pretoria).

Syria Emergency. (2018, April 19). UNHCR. Retrieved March 12, 2021 from https://www.unhcr.org/syria-emergency.html.

Tang, B., Deng, Q., Glik, D., Dong, J., & Zhang, L. (2017). A meta-analysis of risk factors for post-traumatic stress disorder (PTSD) in adults and children after earthquakes. *International journal of environmental research and public health*, *14*(12), 1537.

Tang, B., Deng, Q., Glik, D., Dong, J., & Zhang, L. (2017). A meta-analysis of risk factors for post-traumatic stress disorder (PTSD) in adults and children after earthquakes. *International journal of environmental research and public health*, *14*(12), 1537.

Tanriverd, D., Savas, E., & Can, G. (2012). Posttraumatic growth and social support in Turkish patients with cancer. *Asian Pacific Journal of Cancer Prevention*, *13*(9), 4311-4314.

Tedeschi, R. G., & Calhoun, L. G. (1996). The Posttraumatic Growth Inventory: Measuring the positive legacy of trauma. Journal of traumatic stress, 9(3), 455-472.

Tedeschi, R. G., & Calhoun, L. G. (2004). " Posttraumatic growth: Conceptual foundations and empirical evidence". *Psychological inquiry*, *15*(1), 1-18.

Tedeschi, R. G., Park, C. L., & Calhoun, L. G. (Eds.). (1998). *Posttraumatic growth: Positive changes in the aftermath of crisis*. Routledge.

Tekeli-Yesil, S., Isik, E., Unal, Y., Aljomaa Almossa, F., Konsuk Unlu, H., & Aker, A. T. (2018). Determinants of mental disorders in Syrian refugees in Turkey versus internally displaced persons in Syria. American journal of public health, 108(7), 938-945.

Thornton, A. A., & Perez, M. A. (2006). Posttraumatic growth in prostate cancer survivors and their partners. *Psycho-Oncology: Journal of the Psychological, Social and Behavioral Dimensions of Cancer*, *15*(4), 285-296.

Tomich, P. L., & Helgeson, V. S. (2004). Is finding something good in the bad always good? Benefit finding among women with breast cancer. *Health Psychology*, *23*(1), 16.

Ulloa, E., Guzman, M. L., Salazar, M., & Cala, C. (2016). Posttraumatic growth and sexual violence: A literature review. *Journal of aggression, maltreatment & trauma*, *25*(3), 286-304.

United Nations. (n.d.). Syria emergency. Retrieved from https://www.unhcr.org/syria-emergency.html

Vishnevsky, T., Cann, A., Calhoun, L. G., Tedeschi, R. G., & Demakis, G. J. (2010). Gender differences in self-reported posttraumatic growth: A meta-analysis. *Psychology of women quarterly*, *34*(1), 110-120.

Wang, A. W. T., Chang, C. S., Chen, S. T., Chen, D. R., Fan, F., Carver, C. S., & Hsu, W. Y. (2017). Buffering and direct effect of posttraumatic growth in predicting distress following cancer. *Health Psychology*, *36*(6), 549.

Wang, Y., Wang, H., Wang, J., Wu, J., & Liu, X. (2013). Prevalence and predictors of posttraumatic growth in accidentally injured patients. *Journal of clinical psychology in medical settings*, *20*(1), 3-12.

War, violence, persecution push displacement to new unprecedented high (2017 June 19) UNHCR Retreived March 15, 2021 from https://www.unhcr.org/news/press/2017/6/5943ec594/war-violence-persecution-push-displacement-new-unprecedented-high.html

Wentzel, K. R., & Miele, D. B. (Eds.). (2009). *Handbook of motivation at school*. Routledge.

World Health Organization. (2018). Mental Health Promotion and Mental Health Care in Refugees and Migrants: Technical Guidance. *Testo disponibile al sito: http://www. euro. who. int/en/publications/abstracts/mental-health-promotionand-mental-health-care-in-refugees-and-migrants-2018 consultato il*, *29*, 2020.

World Health Organization. (2018). Mental Health Promotion and Mental Health Care in Refugees and Migrants: Technical Guidance. *Testo disponibile al sito: http://www. euro. who. int/en/publications/abstracts/mental-health-promotionand-mental-health-care-in-refugees-and-migrants-2018 consultato il*, *29*, 2020.

Wu, K. K., Leung, P. W., Cho, V. W., & Law, L. S. (2016). Posttraumatic growth after motor vehicle crashes. *Journal of clinical psychology in medical settings*, *23*(2), 181-191.

Wu, X., Kaminga, A. C., Dai, W., Deng, J., Wang, Z., Pan, X., & Liu, A. (2019). The prevalence of moderate-to-high posttraumatic growth: A systematic review and meta-analysis. *Journal of affective disorders*, *243*, 408-415.

Yeung, N. C., & Lu, Q. (2018). Perceived stress as a mediator between social support and posttraumatic growth among Chinese American breast cancer survivors. *Cancer nursing*, *41*(1), 53.

Yeung, N. C., Lu, Q., Wong, C. C., & Huynh, H. C. (2016). The roles of needs satisfaction, cognitive appraisals, and coping strategies in promoting posttraumatic growth: A stress and coping perspective. *Psychological Trauma: Theory, Research, Practice, and Policy*, *8*(3), 284.

Yıldız, E. (2021). Posttraumatic growth and positive determinants in nursing students after COVID-19 alarm status: A descriptive cross-sectional study. *Perspectives in Psychiatric Care*.

Yılmaz, M. (2014). *Growth Thgrouh Traumatic Loss: The Effect of Grief Related Factors, Coping and Personality on Posttraumatic Growth* (Doctoral dissertation, İstanbul Bilgi University).

Zhang, C., Gao, R., Tai, J., Li, Y., Chen, S., Chen, L., ... & Li, F. (2019). The Relationship between self-perceived burden and posttraumatic growth among colorectal cancer patients: the mediating effects of resilience. *BioMed research international*, *2019*.

Zhang, L., Lu, Y., Qin, Y., Xue, J., & Chen, Y. (2020). Post-traumatic growth and related factors among 1221 Chinese cancer survivors. *Psycho-oncology*, *29*(2), 413-422.

ANNEX

Annex 1: Informed Consent Form

Informed Consent Form

This study aims to explore the Post-traumatic Growth and the related factors Among adult Syrian refugees living in Turkey. The participation is voluntarily and the answers given to this study will be used only for scientific purposes and the evaluations will be conducted on group analysis not in an individual basis. The answers will be taken anonymously, you will not be required to fill any personal information that will show your identity. There are no right or wrong answers for the questions. Your honestly while answering has a crucial role for the results of the study. You have the right to stop at any part of the questions.

Thank you for your participation.

الملحق 1: نموذج استمارة الموافقة المسبقة

استمارة الموافقة المسبقة

تهدف هذه الدراسة إلى استكشاف نمو ما بعد الصدمة والعوامل ذات الصلة بين اللاجئين السوريين البالغين الذين يعيشون في تركيا. المشاركة طوعية وسيتم استخدام الإجابات المقدمة لهذه الدراسة للأغراض العلمية فقط وسيتم إجراء التقييمات على أساس تحليل جماعي وليس على أساس فردي. سيتم أخذ الإجابات دون الكشف عن هويتك ، ولن يُطلب منك ملء أي معلومات شخصية تُظهر هويتك. لا توجد إجابات صحيحة أو خاطئة للأسئلة. صدقك أثناء الإجابة له دور حاسم في نتائج الدراسة. لديك الحق في التوقف عند أي جزء من الأسئلة.

شكرا لكم على مشاركتكم.

Annex 2: Socio-Demographic Information Form

- **Socio-demographic information**

1. Sex
   - ☐ 1. Female
   - ☐ 2. Male
2. Completed age _____
3. Marital status
   - ☐ Single
   - ☐ Married
   - ☐ Divorced
   - ☐ Widowed
   - ☐ Separated
4. Number of children _ _____
5. Education Level (In years) _____
6. Working status
   - ☐ Unemployed
   - ☐ Working in volunteer works
   - ☐ Working in daily jobs with irregular income
   - ☐ Working in a regular job with a regular income
7. Is your work consistent with your education?
   - ☐ Yes
   - ☐ No

8. How do you define your economic situation?

- ☐ Very low
- ☐ Low
- ☐ Middle
- ☐ High

9. level of Turkish

- ☐ I don't know any Turkish
- ☐ I know only few words enough for basics
- ☐ I understand most if the speeches or all of it but cant speak
- ☐ I understand and I can speak

10. Have you been displaced inside Syria?

- ☐ Yes
- ☐ No

11. How long have you been in Turkey? _____

12. Have you experienced any of the following?

- ☐ Property looted, confiscated, or destroyed
- ☐ Imprisoned
- ☐ Suffered ill health without access to medical care or medicine
- ☐ Witnessed mass execution of civilians
- ☐ Witnessed shelling, burning, or razing of residential areas or marshlands
- ☐ Witnessed chemical attacks on residential areas or marshlands
- ☐ Exposed to combat situation (explosions, artillery fire, shelling) or landmine.
- ☐ Serious physical injury of family member or friend from combat situation or landmine
- ☐ Witnessed rotting corpses
- ☐ Witnessed sexual abuse or rape
- ☐ Witnessed torture
- ☐ Witnessed murder

- ☐ Physically harmed (beaten, knifed, etc.)
- ☐ Kidnapped or taken as a hostage
- ☐ Sexually abused or raped (i.e., forced sexula activity)
- ☐ Tortured
- ☐ Had covid-19
- ☐ Know someone who had covid-19

13. People that you share your sorrows and problems

- ☐ I have no one
- ☐ My family
- ☐ My friends / My neighbors
- ☐ Professionals from NGO's or health centers

14. Cultural adaptation

- ☐ Our culture is much better
- ☐ Both of our culture and the culture of my Turkish neighbors are good
- ☐ I live according to my own culture but I can also adapt to my Turkish neighbor's culture

الملحق 2: نموذج المعلومات الاجتماعية والديموغرافية

- المعلومات الاجتماعية والديموغرافية

1. الجنس
   - ☐ ذكر
   - ☐ أنثى

2. العمر : .....

3. الحالة الزوجية
   - ☐ أعزب
   - ☐ متزوج
   - ☐ مطلق
   - ☐ أرمل
   - ☐ منفصل

4. عدد الأولاد .....

5. عدد سنوات التعلم .....

6. وضع العمل

   - ☐ غير موظف
   - ☐ أعمل كمتطوع
   - ☐ أعمل بشكل يومي بعائد غير ثابت
   - ☐ أعمل بشكل يومي براتب ثابت

7. هل عملك متوافق مع ما تعلمته

   - ☐ نعم
   - ☐ لا

8. كيف هو وضعك المادي

   - ☐ سيء جدا
   - ☐ سيء
   - ☐ متوسط
   - ☐ جيد

9. مستوى اللغة التركية
   - ☐ لا أعرف التركية أبداً
   - ☐ أعرف بعض الكلمات الأساسية
   - ☐ أستطيع فهم اللغة التركية ولكن لا استطيع تكلمها
   - ☐ أفهم اللغة واستطيع التكلم

10. هل نزحت داخل سوريا
- ☐ نعم
- ☐ لا

11. كم سنة سكنت في تركيا
12. هل عشت أي من هذا؟
- ☐ نهب الممتلكات، نهبها أو مصادرتها
- ☐ تعرضت للسجن
- ☐ المرض دون الحصول على رعاية طبية أو دواء
- ☐ شهدت قتل جماعي لمدنيين
- ☐ شهد قصفًا أو حرقًا أو تجريفًا لمناطق سكنية
- ☐ شُهدت هجمات كيماوية على مناطق سكنية
- ☐ تعرضت لموقف قتالي (انفجارات ، نيران مدفعية ، قصف) أو لغم أرضي.
- ☐ إصابة بدنية خطيرة لأحد أفراد الأسرة أو الأصدقاء من موقف قتالي أو لغم أرضي
- ☐ شاهدت الجثث المتعفنة
- ☐ شاهد على الاعتداء الجنسي أو الاغتصاب
- ☐ رأيت تعذيب
- ☐ رأيت جريمة قتل
- ☐ اعتداء جسدي (بالضرب أو بالسكين)
- ☐ مخطوف أو أخذ كرهينة
- ☐ الاعتداء الجنسي أو الاغتصاب (أي نشاط جنسي قسري)
- ☐ تعرضت للتعذيب

13. الناس أن تشاركك أحزانك ومشاكلك
- ☐ ليس عندي
- ☐ عائلتي
- ☐ أصدقائي / جيراني
- ☐ خبراء يعملون في جمعيات أو في مراكز صحية

14. التكيف الثقافي
- ☐ ثقافتنا أفضل بكثير
- ☐ ثقافتنا وثقافة جيراني الأتراك جيدان
- ☐ أعيش وفقًا لثقافتي الخاصة ، لكن يمكنني أيضًا التكيف مع ثقافة جيراني الأتراك

Annex 3: Post-traumatic Growth Inventory

Indicate for each of the statements below the degree to which this change occurredin your life as a result of the crisis/disaster, using the following scale.

0 = I did not experience this change as a result of mycrisis.
1 = I experienced this change to a very small degree as a result of mycrisis.
2 = I experienced this change to a small degree as a result of my crisis.
3 = I experienced this change to a moderate degree as a result of mycrisis.
4 = I experienced this change to a great degree as a result of my crisis.
5 = I experienced this change to a very great degree as a result of my crisis.

Possible Areas of Growth and Change	0	1	2	3	4	5
1. I changed my priorities about what is important in life.						
2. I have a greater appreciation for the value of my own life.						
3. I developed new interests.						
4. I have a greater feeling of self-reliance.						
5. I have a better understanding of spiritual matters.						
6. I more clearly see that I can count on people in times of trouble.						
7. I established a new path for my life.						
8. I have a greater sense of closeness with others.						
9. I am more willing to express my emotions.						
10. I know better that I can handle difficulties.						
11. I am able to do better things with my life.						
12.I am better able to accept the way things work out.						
13. I can better appreciate each day.						
14. New opportunities are available which wouldn't have been otherwise.						
15. I have more compassion for others.						
16. I put more effort into my relationships.						
17. I am more likely to try to change things which need changing.						
18. I have a stronger religious faith.						
19.I discovered that I'm stronger than I thought I was.						
20.I learned a great deal about how wonderful people are.						
21. I better accept needing others.						

PTGI

علامات النمو لما بعد الصدمة

أرجو وضع الرقم المناسب الذي يحدد شدة التغيير الذي حدث لك بسبب التعذيب أو الصدمات الأخرى التي كنت قد مررت بها , وذلك حسب مقياس الشدة الآتي:- 0= لم اواجهة اي تغيير كنتيجة لازمتي

1= واجهت هذا التغيير الى درجة ضغيرة جدا كنتيجة لازمتي.

2= واجهت هذا التغيير الى درجة ضغيرة كنتيجة لازمتي.

3= واجهت هذا التغيير الى درجة متوسطة كنتيجة لازمتي.

4= واجهت هذا التغيير إلى درجة شديدة كنتيجة لازمتي.

5= واجهت هذا التغيير إلى درجة شديدة جدا كنتيجة لازمتي.

العبارة	0	1	2	3	4	5
1. غيرت اولوياتي حول ماهو مهم في الحياة						
2.ازداد تقديري لنفسي .						
3. كونت اهتمامات جديدة						
4. ازداد شعوري بالاعتماد على النفس.						
5. اصبح لدى فهم افضل للأمور الروحية.						
6. أصبحت اكثر قدرة على الاعتماد على الناس في وقت الشدة.						
7. شققت طرق جديدة لحياتي .						
8. أصبحت اشعر اني اكثر ارتباطا بالآخرين.						
9. أصبحت اشد استعدادا للتعبير عن انفعالاتي.						
10. زادت قدرتي في مواجهة الصعوبات.						
11. أصبحت اكثر قدرة على إنجاز أعمال جيدة في حياتي						
12. أصبحت اكثر قدرة على تقبل الواقع.						
13. ازداد تقديري لحياتي يوم بعد يوم.						
14. أصبحت هناك فرص جديدة متاحة , لم تكن متاحة من قبل.						
15.أصبحت اكثر إحساسا بالآخرين.						
16. ازدادت جهودي لتكوين علاقات مع الآخرين.						
17.أصبحت اكثر استعدادا لتغير الأوضاع التي تحتاج إلى تغيير.						
18. قوي إيماني الديني.						
19. اكتشفت انني اشد قوة مما كنت اتصور.						
20.أهم درس تعلمته هو" أن الناس رائعين"						
21. ازداد تقبلي لمبدا احتياجي للآخرين.						

Annex 4: PTSD Checklist PCL-5

Instructions: The table below lists problems that people sometimes have in response to extremely stressful experiences. **Keeping your worst event in mind**, please read each problem carefully and then circle one of the numbers to indicate how much you have been bothered by that problem **in the past month**.

	IN THE PAST MONTH, HOW MUCH WERE YOU BOTHERED BY	**NOTATALL**	**ALITTLEBIT**	**MODERATELY**	**QUITEABIT**	**EXTREMELY**
1	Repeated, disturbing, and unwanted memories of the stressful experience?					
2	Repeated, disturbing dreams of the stressful experience?					
3	as if the stressful experience were actually happening again (as if you were actually back there reliving it)?					
4	Feeling very upset when something reminded you of the stressful experience?					
5	Having strong physical reactions when something reminded you of the stressful experience (e.g., heart pounding, trouble breathing, sweating)?					
6	Avoiding memories thoughts, or feelings related to the stressful experience?					
7	Avoiding external reminders of the stressful experience(e.g., people, places, conversations, activities, objects, or situations)?					
8	Trouble remembering important parts of the stressful experience?					
9	Having strong negative beliefs about yourself, other people, or the world (for example, having thoughts such as: I am bad, there is something seriously wrong with me, no one can be trusted, the world is completely dangerous)?					
10	Blaming yourself or someone else for the stressful experience or what happened after it?					
11	Having strong negative feelings such as fear, horror, anger, guilt, or shame?					
12	Loss of interest in activities that you used to enjoy?					
13	Feeling distant or cut of from other people?					
14	Trouble experiencing positive feelings (for example, being unable to feel happiness or have loving feelings for people close to you)?					
15	Irritable behavior, angry outbursts, or acting aggressively?					
16	Taking too many risks or doing things that could cause you harm?					
17	Being “superalert” or watchful or on guard?					
18	Feeling jumpy or easily startled?					
19	Having diiculty concentrating?					
20	Trouble falling or staying asleep?					

PCL-5

في الشهر المنصرم، كم بلغ شعورك بالضيق من:	بتاتاً	قليلاً	متوسط	أكثر من المتوسط	كثيراً جداً
1. ذكريات مكررة، مزعجة وغير مرغوب فيها للتجربة المريرة التي مررت بها؟	0	1	2	3	4
2. أحلام مكررة مزعجة للتجربة المريرة التي مررت بها؟	0	1	2	3	4
3. الشعور أو التصرف المفاجئ كما لو كانت التجربة المريرة تحدث مرة أخرى (*كما لو كنت قد عدت بالزمن فعلاً وتعيشها من جديد*)؟	0	1	2	3	4
4. الشعور بالاستياء الشديد عندما يذكرك شيء ما بالتجربة المريرة؟	0	1	2	3	4
5. المعاناة من رد فعل بدني قوي عندما يذكرك شيء ما بالتجربة المريرة (*على سبيل المثال، زيادة ضربات القلب، صعوبة في التنفس أو التعرق*)؟	0	1	2	3	4
6. تجنب الذكريات أو الأفكار أو المشاعر المتعلقة بالتجربة المريرة؟	0	1	2	3	4
7. تجنب الأشياء الخارجية التي تذكرك بالتجربة المريرة (على سبيل المثال، الأشخاص، الأماكن، المحادثات، الأنشطة، الأشياء أو المواقف)؟	0	1	2	3	4
8. مشاكل تذكر أجزاء هامة من التجربة المريرة؟	0	1	2	3	4
9. وجود معتقدات سلبية قوية عنك أو عن أشخاص آخرين أو العالم (*على سبيل المثال، مراودك أفكار مثل: "أنا سيء"، "هناك شيء خاطئ فيّ"، "لا يمكن الوثوق بأحد"، "العالم خطر جداً"*)؟	0	1	2	3	4
10. إلقاء اللوم على نفسك أو على شخص آخر فيما يخص حدوث التجربة المريرة أو تبعاتها؟	0	1	2	3	4
11. وجود مشاعر سلبية قوية مثل الخوف أو الرعب أو الغضب أو الشعور بالذنب أو العار؟	0	1	2	3	4
12. فقدان الاهتمام بالأنشطة التي كنت تستمتع بها؟	0	1	2	3	4
13. الشعور بالبعد أو العزلة عن الأشخاص الآخرين؟	0	1	2	3	4
14. صعوبة الإحساس بالمشاعر الإيجابية (*على سبيل المثال، عدم التمكن من الشعور بالسعادة أو مشاعر حب تجاه المقربين إليك*)؟	0	1	2	3	4
15. سرعة الغضب أو المرور بنوبات الغضب أو التصرف بعدوانية؟	0	1	2	3	4
16. الخوض في الكثير من المخاطر أو الأشياء التي قد تسبب لك الضرر؟	0	1	2	3	4
17. البقاء في حالة تأهب قصوى أو احتراس أو حذر شديدين؟	0	1	2	3	4
18. الشعور بسرعة الاهتياج أو الاستفزاز بسهولة؟	0	1	2	3	4
19. صعوبة في التركيز؟	0	1	2	3	4
20. مشاكل في الرغبة في النوم أو في البقاء نائماً؟	0	1	2	3	4

Annex 5: Brief COPE

1 = I haven't been doing this at all
2 = I've been doing this a little bit
3 = I've been doing this a medium amount
4 = I've been doing this a lot

	1	2	3	4
1. I've been turning to work or other activities to take my mind off things.				
2. I've been concentrating my efforts on doing something about the situation I'm in.				
3. I've been saying to myself "this isn't real.".				
4. I've been using alcohol or other drugs to make myself feel better.				
5. I've been getting emotional support from others.				
6. I've been giving up trying to deal with it.				
7. I've been taking action to try to make the situation better.				
8. I've been refusing to believe that it has happened.				
9. I've been saying things to let my unpleasant feelings escape.				
10. I've been getting help and advice from other people.				
11. I've been using alcohol or other drugs to help me get through it.				
12. I've been trying to see it in a different light, to make it seem more positive.				
13. I've been criticizing myself.				
14. I've been trying to come up with a strategy about what to do.				
15. I've been getting comfort and understanding from someone.				
16. I've been giving up the attempt to cope.				
17. I've been looking for something good in what is happening.				
18. I've been making jokes about it.				
19. I've been doing something to think about it less, such as going to movies, watching TV, reading, daydreaming, sleeping, or shopping.				
20. I've been accepting the reality of the fact that it has happened.				
21. I've been expressing my negative feelings.				
22. I've been trying to find comfort in my religion or spiritual beliefs.				
23. I've been trying to get advice or help from other people about what to do.				
24. I've been learning to live with it.				
25. I've been thinking hard about what steps to take.				
26. I've been blaming myself for things that happened.				
27. I've been praying or meditating.				
28. I've been making fun of the situation.				

مقياس التكييف

الرجاء الإجابة على الأسئلة التالية مشيراً إلى أي مدى توافق أو لا توافق على كل عبارة. ضع إشارة مقابل التكرار المناسب لك:

	البند	أنا لم أفعل ذلك على الإطلاق	لقد فعلت هذا قليلا	لقد كنت أفعل هذا بشكل متوسط	لقد فعلت هذا كثيرا
1	تحولت إلى العمل أو الأنشطة الأخرى لتصفية ذهني	1	2	3	4
2	ركّزت جهودي على القيام بشيء حيال الوضع الذي انا فيها	1	2	3	4
3	كنت أقول لنفسي "هذا ليس حقيقيا".	1	2	3	4
4	استخدمت الكحول أو المخدرات لاشعر على نحو أفضل.	1	2	3	4
5	حصلت على الدعم العاطفي من الآخرين.	1	2	3	4
6	تخليت عن محاولة التعامل مع الموقف.	1	2	3	4
7	اتخذت اجراءات في محاولة لجعل الوضع يبدو أفضل.	1	2	3	4
8	كنت ارفض أن اصدق أنه ما حدث قد حدث فعلا.	1	2	3	4
9	قلت أشياء حتى اتخلص او اهرب من من المشاعر غير السارة المتعلقة بالحدث .	1	2	3	4
10	حصلت على المساعدة والمشورة من أشخاص آخرين.	1	2	3	4
11	استخدمت الكحول أو المخدرات لتساعدني في الخروج من ذلك الموقف	1	2	3	4
12	حاولت أن أرى الموقف في صورة مختلفة، لجعله يبدو أكثر إيجابية.	1	2	3	4
13	انتقدت نفسي.	1	2	3	4
14	حاولت الخروج باستراتيجية حول ما يجب القيام به.	1	2	3	4
15	حصلت على الراحة والتفهم من شخص ما.	1	2	3	4
16	تخليت عن محاولة التأقلم مع الموقف	1	2	3	4
17	بحثت عن شيء جيد في ما يحدث.	1	2	3	4
18	صنعت و قلت النكات حول هذا الموضوع.	1	2	3	4
19	فعلت أ شياء لاقلل من التفكير في الموقف ، مثل الذهاب إلى السينما ، ومشاهدة التلفزيون والقراءة وأحلام اليقظة ,النوم، أو التسوق.	1	2	3	4
20	قبلت بواقع الحقيقة أنه حدث	1	2	3	4
21	عبرت عن مشاعري السلبية.	1	2	3	4
22	حاولت أن أجد الراحة في ديني و معتقداتي الروحية.	1	2	3	4
23	حاولت الحصول على مشورة أو مساعدة من الآخرين حول ما يجب القيام به.	1	2	3	4
24	تعلمت كيفية العيش معه.	1	2	3	4
25	فكرت مليا في الخطوات التي يجب اتخاذها.	1	2	3	4
26	لومت نفسي عن الأشياء التي حدثت.	1	2	3	4
27	صليت أو لجأت الى التأمل.	1	2	3	4
28	سخرت من هذا الموقف.	1	2	3	4

Annex 6: General Self-Efficacy Scale (GSES)

Think about yourself and your life when you are answering these questions.

		Not at all true	Hardly true	Moderately true	Exactly true
1	I can always manage to solve difficult problems if I try hard enough.				
2	If someone opposes me, I can find the means and ways to get what I want.				
3	It is easy for me to stick to my aims and accomplish my goals.				
4	I am confident that I could deal efficiently with unexpected events.				
5	Thanks to my resourcefulness, I know how to handle unforeseen situations.				
6	I can solve most problems if I invest the necessary effort.				
7	I can remain calm when facing difficulties because I can rely on my coping abilities.				
8	When I am confronted with a problem, I can usually find several solutions.				
9	If I am in trouble, I can usually think of a solution.				
10	I can usually handle whatever comes my way.				

	1. غير صحيحة على الإطلاق	2. بالكاد تكون صحيحة	3. صحيحة إلى حد ما	4. صحيحة تماما	8. لا أعرف	9. أرفض الإجابة
a. في إمكاني النجاح في حل المشاكل الصعبة إذا حاولت بما فيه الكفاية	1	2	3	4	8	9
b. إذا عارضني شخص ما، في إمكاني أن أجد الوسائل والسبل للحصول على ما أريد.	1	2	3	4	8	9
c. من السهل بالنسبة لي التمسك بأهدافي وتحقيقها.	1	2	3	4	8	9
d. أنا واثقة من قدرتي على التعامل بكفاءة مع الأحداث غير المتوقعة.	1	2	3	4	8	9
e. بفضل ما لدي من حيلة، أعرف كيفية التعامل في المواقف غير المتوقعة.	1	2	3	4	8	9
f. يمكنني حل معظم المشاكل إذا استثمرت فيها الجهد اللازم.	1	2	3	4	8	9
g. يمكنني التزام الهدوء عند مواجهة صعوبات لأنه يمكنني الاعتماد على قدراتي في التأقلم.	1	2	3	4	8	9
h. عندما أواجه مشكلة، يمكنني عادة إيجاد العديد من الحلول.	1	2	3	4	8	9
i. إذا واجهت مشكلة، عادة يمكنني التفكير في حل.	1	2	3	4	8	9
j. عادة يمكنني التعامل مع كل ما يأتي في طريقي.	1	2	3	4	8	9

NOT FOR DISTRIBUTION OR COMMERCIAL USE

Annex 7: Strengths

- What was the thing/things that helped you the most during your difficulties and gave you strength?

الملحق 7: نقاط القوة

ما هو الشيء أو الأشياء التي ساعدتك بشكل أكبر والتي أعطتك القوة خلال الصعوبات التي واجهتك؟

Annex 8: ETHICS APPROVAL

Ethics Committee Approval is available in the printed version of this thesis.