

Attachment and Reflective Functioning Moderating the Relationship Between Child  
Sexual and Physical Abuse, Post-traumatic Stress, and Post-traumatic Growth

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A Thesis submitted to the Faculty of Social and Behavioral Sciences in partial fulfillment of the requirements for the Master of Art in Psychology – Emphasis: Clinical Psychology at Haigazian University.

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Attachment and Reflective Functioning Moderating the Relationship Between Child  
Sexual and Physical Abuse, Post-traumatic Stress, and Post-traumatic Growth

By Abeer Jammoul

is accepted by the Graduate Thesis Committee as satisfying the thesis requirements for  
the degree of Master of Arts/ Clinical Psychology

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*Hanine Hour*

Haigazian University

May 2023

## *DEDICATION*

*This dissertation is dedicated to all survivors of child abuse, specifically for the Lebanese population who have endured unbearable events, and despite all challenges and struggles, are still aiming for growth...*

## ACKNOWLEDGMENTS

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## **Abstract**

This study intends to further explore the relationship between child sexual and physical abuse, trauma, and growth, with an emphasis on its link to attachment and reflective functioning. It expands on previous work by assessing the degree to which attachment security plays a role in the relationship between a history of child sexual and physical abuse and posttrauma-related symptoms with highlighting the possibility of post traumatic-growth.

It also aims to highlight the significance of mentalization/reflective functioning that can be a protective factor between child sexual and physical abuse and both PTS and PTG

A sample of 125 Lebanese adults 18 years and older, living in Lebanon, who have experienced sexual and physical abuse during childhood were asked to fill out a questionnaire including demographic questions and a 25 minute questionnaire sexual and physical abuse questionnaire (SPAQ), revised-adult attachment scale (close relationship version), the reflective functioning questionnaire (RFQ), the PCL-5 short version 4-item self-report questionnaire, and finally a final structure of 8 items scale that measure PTG (PTGI-8). Only 85 met criteria and were included in the study.

In this sample, secure attachment plays a protective in individuals who experienced childhood abuse where securely attached individuals scores lower on PTS than insecurely attached. However, attachment doesn't play a role in the relation between child abuse and PTG. Reflective functioning is also a good protective factor by which "genuine" mentalizing aids in lowering PTS symptoms in abused individuals, however it doesn't have the same powerful significance in increasing PTG.

*Keywords:* child sexual and physical abuse, attachment styles, secure attachment, posttraumatic stress, posttraumatic growth, reflective functioning, mentalization.

## **Attachment and Reflective Functioning Moderating the Relationship Between Child Sexual Abuse, Post-traumatic Stress, and Post-traumatic Growth**

### **Introduction**

Even when actual or threatened violence or harm is not present, child abuse has been classified as a traumatic experience (Briere, 2006). Children that suffer child abuse have changed self-concepts and affective capabilities, as well as altered cognitive and emotional worldviews (Collin-Vézina, Daigneault, & Hébert, 2013). As a result, the experience of abuse can have significant short and long-term repercussions on mental health, including posttraumatic stress disorder (Paolucci, Genuis, & Violato, 2001). Furthermore, such detrimental effects on mental health can cause physical issues, academic performance issues, interpersonal difficulties, risky sexual promiscuity, sexual assault, substance use, and gang involvement at school (Tyler, 2002). Among the many detrimental effects of child abuse, a person's beliefs in the security and goodness of the world are frequently challenged (Janoff-Bulman & McPherson Frantz, 1997). People who have child sexual abuse (CSA) may consequently feel as though their lives have lost their meaning and purpose (Wright, Crawford, & Sebastian, 2007).

The opportunity for good adjustment following such a traumatic occurrence exists despite the prevalence of the negative impacts of CSA (Wright, Fopma-Loy, & Fischer, 2005).

According to studies (Farber & Egeland, 1987; Herman, Russell, & Trocki, 1986), people with a history of CSA are not a homogeneous group, and many may exhibit signs of good adjustment years after the abuse. However, it is still unknown what causes some people to continue to experience pain into adulthood while others recover well. There is still much to learn about the

specific factors that contribute to positive adjustment in the wake of child abuse, but researchers have identified personal perception and social factors as being influential to individual adjustment (Everson, Hunter, Runyan, Edelson, & Coulter, 1989).

Numerous factors have been found to be connected to how everyone adjusted after their abuse experience. The severity of the abuse, the use of force, the victim's relationship to the abuser, and the victim's age all have an impact on adjustment, with more severe abuse being linked to worse adjustment in adulthood (Briere, 2006). Aside from that, it has been discovered that elements like parental warmth, family functioning social support, and belief and support from the non-offending parent have been found to be influential to the long-term impact of CSA (Koverola, Proulx, Battle, & Hanna, 1996). Further, it has been discovered that individual cognitive processing of the event, which includes feelings of stigma and self-blame, and the search for meaning, affects the recovery from CSA (Levenkron, & Levenkron, 2007). Additionally, researchers have found that in predicting the adjustment of people with a history of child abuse, cognitive, social, and environmental factors may be more significant than the characteristics of the abuse itself (Meichenbaum, 2014).

### **Research Question**

In the light of the above, the present study addressed the following question: How do attachment style and reflective functioning affect post traumatic stress and post traumatic growth in individuals who experienced child sexual and physical abuse?

## **Rationale**

Considering that child abuse is a pervasive problem (Wurtele, 2009) and that it leads to significant psychological issues in survivors, such as depression, anxiety, suicidality, and posttraumatic stress disorder (PTSD) (Berliner & Elliott, 2002; Paolucci et al., 2001), it is important to support survivors to grow after their trauma, rather than just helping them address it. Unfortunately, the experience of posttraumatic growth (PTG) among survivors of child abuse has received less attention from researchers than that of other types of traumatic experiences, such as chronic illness, automobile accidents, terrorist attacks, and natural disasters (Cryder et al., 2006; Tedeschi & Calhoun, 2004; Wong et al., 2009).

The link between child abuse and subsequent psychopathology in adulthood has been well-established. Approximately 16% of men and 25-27% of women in the United States have been victims of child sexual abuse (CSA), and about 26%-32% of CSA victims have adult-onset psychological disorders (Pérez-Fuentes et al., 2013). However, in Lebanon, numbers are not clear since there are few studies openly asking about an incidence of child abuse, especially sexual abuse. In addition, there have been multiple attempts to study the link between child abuse and posttraumatic growth, however moderators of this link were not well established. Although most researchers would agree that child abuse is a risk factor for development of PTSD, there is little consensus as to why some victims of abuse developed PTG and other not (Elzy, 2011; Bradley et al., 2005). This study will fill in this gap.

Attachment is said to be a precursor for the enhancement of PTG (Thairovic & Bajric, 2016). It has been suggested that a secure attachment style can influence the likelihood of growing after the traumatic incident (Mikulincer & Florian, 2004). Previous literature studied the increased likelihood of the development of PTSD in insecurely attached people but did not go

beyond that by trying to find whether securely attached individuals are at lower risk of developing PTSD especially after an incidence of sexual abuse (Mikulincer & Florian, 2004). For this, both posttraumatic stress (PTS) and PTG will be studied as dependent variables.

Fonagy, Target, and Gergely (2016) also suggest an inability to develop mental representations of mental states in self and other (i.e., reflective functioning). Therefore, the ability to mentalize may be a protective factor against the aggravation of PTS and thus an enhancer of PTG, and thus it will be studied as a moderator to clearly deduce the relationship.

To the best of our knowledge, despite the rising recent literature's interest in PTG and its relationship to people's mental abilities, on top and above trauma exposure, no studies in Lebanon have yet investigated this relationship. As such, the study intends to fill this gap and further explore the relationship between child sexual and physical abuse, post-traumatic stress, and growth, with an emphasis on its link to attachment and reflective functioning.

## **Significance**

Given the complex pathways linking childhood sexual abuse with PTS and PTG, it is difficult to conclude whether childhood sexual and/or physical abuse is a direct and sufficient cause of the development of PTS, and how is PTG identified in many cases. It is important to check if there are variables affecting this association. The significance of this study is to highlight some variables that work as protective factors after the incidence of abuse during childhood, which can reduce the presence and/or aggravation of PTS and enhance PTG. The protective factors studied, will in turn be crucial to lean on when an abused child comes to therapy, or when an adult who experienced abuse during childhood is still stuck at the level of the trauma.

This study will also address how attachment types might affect posttraumatic stress or growth after sexual abuse, bringing it to caregiver's attention to bolster it in developing children. This would aid parents in recognizing the possibility of secure attachment, particularly after a childhood trauma (sexual abuse). The significance of reflective functioning and PTG, particularly considering the CSA frequencies, would contribute to raise awareness on the importance of establishing training programs in schools for children to improve such abilities especially in abused kids. Mentalization promotion can be a protective factor for individuals and a useful tool for preventing PTSD and promoting PTG.

Individually, this study sheds the light on possible posttraumatic growth even after the incidence of child abuse, which empowers individuals to seek help if the incident occurred and is still affecting them. It also highlights the importance of providing children with secure attachment which will in turn enhance their ability to mentalize. Having this study in Lebanon is crucial in helping NGOs get an approximation of children who have faced sexual and physical abuse and thus target interventions that help stop or reduce the occurrence of the incidence. It also helps researchers rely on some interventions that help reduce the effect of the incidence of abuse and thus promote growth.

## Chapter 2

### Literature Review

The purpose of this chapter is to gain an understanding of the existing research that is relevant to our study to formulate the needed hypotheses.

When a traumatic incident occurs, people's presumptions and ideas about the world and themselves are what make the experience terrible. Childhood is a time when people start creating working models of themselves and the world. These working models define an individual's assumptive reality, including the underlying presuppositions that serve as the framework for their conceptual system. When children go through a traumatic incident, their worldview is changed, and the event may invalidate their earlier worldview and knowledge of the world. They must make choices on how to move forward in life with a belief system that has been destroyed, which causes posttraumatic stress. Even though posttraumatic stress seems to affect a lot of people with a history of child abuse, some seem to be able to thrive in this environment.

Almost everyone will experience a traumatic event in their lives, yet not everyone will develop post-traumatic stress disorder (PTSD), and some will experience post-traumatic growth. Researchers have identified numerous effects of child sexual and physical abuse on adults, including increased risk of posttraumatic stress disorder (PTSD), depression, sexual difficulties, and substance abuse problems (Campbell, Dworkin, & Cabral, 2009). Despite increased risk of problems among survivors, posttraumatic growth or positive life changes (Frazier, Conlon, & Glaser, 2001; Frazier, Tashiro, Berman, Steger, & Long, 2004) are also commonly reported.

Child sexual and physical abuse (CSPA) is a global public health issue for both men and women; it can have major and long-term medical, psychological, sexual, and societal implications. Sexual abuse can be operationally defined as the use, persuasion, inducement, enticement, or coercion of any child to engage in, or help another person engage in, any sexually explicit behavior or any simulation of such behavior for the purpose of creating a visual representation of such behavior (Katerndahl et al., 2005). Rape, and in cases of caretaker or inter-familial relationships statutory rape, molestation, prostitution, or other forms of sexual exploitation of children, or incest with children are also forms CSA (Katerndahl et al., 2005). In addition, child physical abuse is defined as the infliction of unlawful personal violence on another person. battery. beating. violence. aggression. (McGee & Wolfe, 1991). The long-term effects of CSA on health and well-being reveal that such childhood violence can have far-reaching and catastrophic ramifications for the mind, body, and spirit. Childhood sexual and physical trauma is a breach of trust and boundaries (Finkelhor & Browne, 2001). In this way, it can result in severe psychological anguish in people who have been exposed. Early abuse is linked to bad life evaluations in both male and female participants (Becker, Sanders, & Chinsky, 1995). Survivors of childhood abuse are also more likely to be victimized again as adults. The experience of CSPA can cause profound short-term and long-term effects on mental health such as depression, anxiety, suicidality, and posttraumatic stress disorder (PTSD) (Paolucci, Genuis, & Violato, 2001). Among the various types of traumas that individuals may experience that lead to PTSD, sexual trauma has the strongest association (Nooner et al., 2012). As such, child sexual and physical abuse will be studied as the independent variable in this study, and the possible outcomes of the incident of abuse (including posttraumatic stress disorder and posttraumatic growth) will be studied, while highlighting possible moderating variables.

## **Theoretical Framework**

Given that research emphasizes the significance of potential health benefits associated with the experience of PTG (e.g., decreased anxiety and depression, increased quality of life, and greater access to social supports; Milam, 2004; 2006), it is imperative to examine growth, particularly posttraumatic growth (PTG) among survivors of child abuse (Tedeschi & Calhoun, 2004). There is a need to expand the study in this field because the bulk of studies on PTG have been on cancer, war, and big catastrophe survivors, with little or no attention paid to child sexual and physical abuse. Furthermore, only few studies have examined the impact of attachment style on PTG among sexual assault survivors; consequently, more research is required to examine the impact of attachment style on PTG among survivors of abuse.

Prior studies have established the traumatic nature of child abuse (Briere, 2006) and the impact of attachment types on post-traumatic psychological adjustment and coping (Canton-Cortes, Cortés, & Cantón, 2015; Mikulincer & Florian, 2004). As a result, including the concept of attachment in the research seems logical. Although the construct of attachment has been studied in relation to PTG, it has not been studied in relation to PTG with both male and female abuse survivors. Further research into the impact of attachment characteristics on the experience of posttraumatic growth is required (McElheran et al., 2012).

## Post Traumatic Growth

Although the negative effects of child abuse seem to be abundant, there is also the potential for positive adjustment following such a traumatic event (Ensink et al, 2021). Some survivors of CSPA demonstrate healthy adjustment years after their abuse (McMillen, Zuravin, & Rideout, 1995) and even experience post traumatic growth (PTG) (Sheridan & Carr, 2020). There is increasing recognition that some individuals are resilient, or they “bounce back” quickly despite exposure to highly adverse events (Kendall-Tackett, Williams, & Finkelhor, 1993; Mancini & Bonanno, 2009). There is a growing awareness that others may even experience some level of positive personal change because of coping with their trauma experience (Tedeschi & Calhoun, 2004). These findings have led to the introduction of the term “post-traumatic growth”, referring to the experience of positive psychological change because of coping with extremely challenging life circumstances (Frazier, Conlon, & Glaser, 2001). PTG refers to the ways in which people are positively transformed by the experience of surviving significant adversity (Tedeschi & Calhoun, 2004). People who experience PTG have been found to make gains in five areas of their life: (a) renew/discover personal strength, (b) discover new life possibilities, (c) form meaningful interpersonal relationships, (d) gain a new appreciation for life, and (e) renew/develop spirituality (Richard & Calhoun, 2004). Given that research emphasizes the significance of possible health advantages connected with the experience of PTG, it is crucial to examine growth, particularly posttraumatic growth (PTG) among survivors of child abuse (Tedeschi & Calhoun, 2004), and hence consider it as a dependent variable in this study. Posttraumatic growth is the result of an active reconfiguration of a person’s mental map to accommodate new trauma-related information (Tedeschi & Calhoun, 2004).

In one study 87% of female survivors of CSA reported some level of benefit because of coping with their abuse (Walsh, Fortier, & Dillillo, 2010). PTG primarily refers to how the person thinks about the experience (Woodward & Joseph, 2003), although there is some evidence that the trauma's characteristics may also be significant. Researchers have also argued that some persons who encounter traumatic situations can perceive some good from their hardships, even though trauma may have numerous emotional and psychological effects. A traumatic event can be operationally defined as a highly stressful and challenging experience that has the potential to affect individual's level of functioning (Tedeschi & Calhoun, 2004). PTG has been reported where CSA has been perpetrated by a family member as opposed to a stranger (Lev-Wiesel, Amir, & Besser, 2004). Although they appear to be at odds with one another, some research suggests that PTG and post-traumatic stress are separate constructs that may coexist (Zoellner & Maercker, 2006). In this study, we will study the correlation between child sexual and physical abuse, being the independent variable, with post-traumatic stress and post traumatic growth, both being the dependent variables. Based on literature review, some variables seem to be moderating the latter relationship, the most common of which among studies are attachment styles and reflective functioning (Ensink et al., 2015; Hinnen et al., 2009).

### **Reflective Functioning**

The organismic valuing theory of growth (Joseph & Linley, 2005) explains that the assimilation and accommodation processes of post-trauma can lead to either positive or negative outcomes. As such, mentalizing will moderate the relationship between child sexual and physical

abuse (CSPA) and the dependent variables (PTG and PTSD), thus serve a protective role in children's development, reducing the likelihood of developing PTSD after the incidence of abuse and promoting posttraumatic growth in the face of children's CSPA exposure. The theorizing of Fonagy and colleagues, which proposed that mentalization, the ability to put oneself in the mind of others, imagine the intentions and reasons underlying others', and be aware of one's own reactions and their impact on others, may facilitate the enactment of sensitive responses to traumatic experiences (Ensink et al, 2016). Studies demonstrate positive associations between mentalization, attachment security, emotion regulation, and mental health, in individuals (Borelli et al., 2018). The ability to mentalize, which enables people to make sense of their own and other people's emotions and thought processes in the wake of these experiences, is thought to be at the core of growth processes following early adversity, according to scholars (Fonagy et al., 2002; Fonagy et al, 2009). Higher reflective functioning (RF) has been linked to improved child psychological adaptation following CSA (Ensink et al., 2016). Researchers discovered that mentalizing relevant to trauma, or so-called Trauma-RF, was usually noticeably lower than RF addressing self and others. This information elucidated the significance of mentalizing in the recovery from trauma (Ensink et al., 2015). A child experiencing abuse and encountering the malicious intent of others may result in a protective suppression of mentalization that lowers anxiety, especially if the abuser is an attachment figure (Allen, 2008). An individual who can reflect about their own and others' mental states can engage in complicated thinking about relationships and interpersonal interactions. In addition to promoting interpersonal benefits, RF has a strong association with mental health and post-traumatic growth (Fonagy et al., 2002). In fact, RF is thought to be a protective factor against psychopathology and developmental issues (Fonagy & Target, 1998). Mentalizing enables people to perceive and categorize their feelings in

relation to difficult life situations, as well as to participate in a reflective process about these experiences. As a result, the negative effects of such experiences may be lessened (Fonagy et al., 2002). Hayden et colleagues discovered that gains in mentalization had an influence on interpersonal distress in a group of people with mental illnesses (Hayden et al., 2018). Additionally, according to researchers, RF fosters the connection between a person's internal world such as the self, and exterior world such as the social world (Luyten et al., 2020), thereby promoting contemporaneous psychological well-being. As such, mentalizing is a psychosocial competency that should be cultivated and fostered with persons who are dealing with tough developmental tasks and crises, according to Clinical Health Psychology (Bateman & Fonagy, 2012). There is evidence on an association between the quality of attachment relationship and reflective function in the parent and the child which is reviewed and interpreted in the context of current models of theory of mind development (Fonagy & Target, 1997). As such, attachment styles are chosen to be studied as moderators in the relationship between CSPA with PTSD and PTG.

### **Attachment Styles**

Previous researchers have shown that child abuse, especially sexual abuse is traumatic (Briere, 2006) and that attachment styles influence psychological adjustment and coping following traumatic experiences (Canton-Cortes, Cortés, & Cantón, 2015; Mikulincer & Florian, 2004). Thus, attachment will be studied as a moderator in the relationship between CSPA and PTG where securely attached individuals may have better ability to develop PTG after the incident of abuse compared to insecurely attached individuals. However, attachment will also moderate the relationship between CSPA and PTS in an opposite direction, where sexually

abused individuals who are securely attached will have a reduced likelihood of developing PTS compared to insecurely attached individuals. When a traumatic incident occurs, the assumptions and ideas that people have about the world and about themselves are what make the experience stressful. Children start developing working models of themselves and the world (Hinnen et al., 2009), and these working models often include underlying presuppositions that serve as the framework for their conceptual framework (Joseph, 2011). As a result, individuals must decide how to go forward in life with a belief system that has been destroyed (Jiang et al., 2013), which might result in posttraumatic stress. Even though posttraumatic stress seems to affect a lot of people with a history of child abuse, some seem to be able to flourish after experiencing it. Attachment theory proposes that human behavior and psychological development is heavily influenced by the early relationship between an infant and their primary caregiver. When children experience abuse, their cognitive and emotional orientation to the world is altered, and self-concept and affective capacities are distorted (Collin-Vézina et al., 2013). People with secure attachment systems typically have better emotional regulation, reduced anxiety, and the ability to make sense of their experiences (Nelson, 2016). A child's stable attachment can aid his ability to mentally process information, allowing him to cope better with difficult situations (Fonagy & Campbell, 2016). Research has also shown that attachment systems influence psychological adjustment and coping following traumatic experiences (Mikulincer & Florian, 2004). As such, it would seem vital to investigate how attachment type affects adult CSPA survivors' experiences of PTG.

## Hypotheses

Based on the above literature review, the following hypotheses were investigated, keeping in mind that all participants included in the study have experienced child sexual/or physical abuse:

*Attachment plays a role in the relation between child sexual and/or physical abuse and PTS, and between child sexual and/or physical abuse and PTG.*

**H1a:** Abused individuals who are securely attached show lower scores on PTS compared to individuals who are insecurely attached.

**H1b:** Abused individuals who are securely attached show higher scores on post-traumatic growth compared to individuals who are insecurely attached.

*Reflective functioning plays a role in the relation between child sexual and/or physical abuse and PTS, and between child sexual and/or physical abuse and PTG.*

**H2a:** Abused individuals with healthy/genuine reflective functioning show lower scores on PTS compared to individuals with unhealthy reflective functioning.

**H2b:** Abused individuals with healthy/genuine reflective functioning show higher scores on post-traumatic growth compared to individuals with unhealthy reflective functioning.

## **Chapter 3**

### **Methodology**

This chapter presents the following: research design, participants, instruments, translation of scales, procedure, pilot study, ethical concerns, and data analysis.

#### **Research Design**

This was a quantitative, correlational, non-experimental research study that based on an online survey (developed using Google Forms). In this study, participants were asked to fill out a demographic sheet and five questionnaires, which studied the presence of an incidence of child sexual/ physical abuse, attachment, reflective functioning, post-traumatic stress, and post-traumatic growth.

#### **Participants**

The recruitment of participants was based on a non-random convenient sampling from the Lebanese general population. To be included in the study, participants had to be a Lebanese adult (18 years of age and older) residing in Lebanon and have experienced an incident of child sexual and/or physical abuse. The restriction of residency in Lebanon was set to control of extraneous variables that can affect post-traumatic growth. The exclusion criteria of the study included being a residing refugee in Lebanon, since refugee populations in Lebanon face different traumatic events, and culturally, have different ways of reacting to these events. In addition, healthy and unhealthy attachment varies in definition among this population compared to Lebanese people. The announcement of the online survey was posted on various social media

platforms (Instagram, Facebook, Twitter, and LinkedIn). The target sample of the study was calculated using G-power 3.1 assuming linear multiple regression statistical test, small to medium effect size  $f^2=0.03$ , a power of 0.95, and a 5% probability of error (Faul, Erdfelder, Buchner, and Lang, 2009). As such, the sample size of this study had to be 236 participants. However, due to the very restrictive inclusion criteria, a smaller sample was recruited. This can be a limitation to the results and generalization of the study. The sample consisted of 125 individuals, however only 85 responses can be used in the study since they reported some form of abuse by answering “Yes” to questions 1, 2, 3, 4, 6, or 7 of the Sexual and Physical Abuse Questionnaire (SPAQ) that report a form of abuse.

## **Instruments**

*Demographic questions:* The demographics include age, sex, educational level, and employment status. In addition, a question of whether the participant has been to therapy before or not was also added. These factors were proven to influence PTG (Nelson, 2016).

*The Sexual and Physical Abuse Questionnaire (SPAQ):* The SPAQ includes 9 items asking about sexual or abusive incidents with YES or NO answers (Kooiman et al., 2002). In some questions, the age when the incident of abuse happened is asked about. Sample items include “Has anyone ever forced you to touch his or her sex organs in a sexual manner and against your will? No, yes: If yes, how old were you when it first happened? A. Less than 6 years old, B. 6 years old or older, but less than 12 years old, C. 12 years old, but less than 16 years old, D. 16 years old or older”. For this research study, the main interest is in whether the incident of sexual abuse or harassment happened or not, so the total score for SAQ will be calculated by checking the whether

the questions related to abuse are answered by 'YES' or 'NO'. The scale has a Cronbach alpha of 0.78 (Kooiman et al, 2002).

*Experiences in Close Relationship Scale – Short Version (ECR-S)*: The ECR-S measures adult romantic attachment by asking how one experiences and feels in romantic relationships in general and not only what is happening in the current relationship if any (Wei et al., 2007). It consists of 12 items to be answered on a 7-point Likert scale ranging from 1 (strongly disagree) to 7 (strongly agree). Sample items include: "it helps to turn to my romantic partner in times of need" and "I need a lot of reassurance that I am loved by my partner". It is a validated scale. The items assess 2 dimensions: attachment anxiety and attachment avoidance with Cronbach alphas of 0.75 and 0.76 respectively. People who score high on either or both dimensions are assumed to have an insecure adult attachment orientation. By contrast, people with low levels of attachment anxiety and avoidance can be viewed as having a secure adult attachment orientation (Brennan et al., 1998). In addition, higher scores are significantly and positively related to depression, anxiety, interpersonal distress, or loneliness. The ECR extended version demonstrated a high level of internal consistency among the two variables, according to Brennan et al. (1998), with coefficient alphas of .91 and .94 for the Anxiety and Avoidance subscales, respectively, in undergraduate students. Wei et al. (2007) found that the short version of the scale contained two variables with strong internal consistency in their sample (N=851), with coefficient alphas of .78 (Anxiety) and .84 (Avoidance). The Anxiety and Avoidance subscales had modest correlations ( $r = .19$ ), indicating that these two measures reflected different aspects of attachment. The positive correlation of attachment anxiety with emotional reactivity and the positive association of attachment avoidance with emotional cutoff supported the construct validity of the ECR-S, which was consistent with attachment theory predictions (Wei et

al., 2007). Correlation analyses with several tests were used to establish convergent validity. Excessive reassurance seeking was found to be linked to attachment anxiety, but not attachment avoidance. Both attachment anxiety and avoidance were found to be strongly linked with depression. In conclusion, the ECR-S has a stable factor structure, good internal consistency, test-retest reliability, and construct validity.

*The Reflective Functioning Questionnaire (RFQ)*: Reflective functioning, or mentalizing, refers to our capacity to understand ourselves and others in terms of feelings, desires, wishes, goals, and attitudes (Allen, Fonagy & Bateman, 2008). The RFQ assesses severe impairments or imbalances in mentalizing as typically observed in patients with borderline personality disorder features (Bateman & Fonagy, 2012). The 8 items are rated on a 7-point scale ranging from 1 (strongly disagree) to 7 (strongly agree). Sample items include “People’s thoughts are a mystery to me” and “I don’t always know why I do what I do”. The questionnaire assesses 2 dimensions Certainty and Uncertainty which in the present study yielded Cronbach alphas of 0.80 and 0.75 respectively.

*The PCL-5 short version 4-item self-report questionnaire* that screens for PTSD symptoms based on the diagnostic criteria of the DSM-5 (Zuromski et al., 2019). Responses are scored on a 5-point Likert scale, ranging from Not at all (0) to Extremely (4) and scores can range from 0 to 16. Given that integer-scored and weighted versions of the short-form scales have the same items, a total of 96 ( $8 \times 3 \times 4$ ) different short-form item sets were considered: Each contained between one and eight items, created using one of three different statistical methods to select the subset of item (RiskSLIM, stepwise regression, factor analysis), and used

to predict one of four different dichotomous PTSD outcomes. Each of 12 integer-scored short-form scales (4- to 6- item scales selected to predict four different dichotomous PCL-5 diagnostic outcomes in the training sample) with the same outcomes in the validation sample and subsamples. AUCs of all 12 scales either approached or exceeded 0.99 predicting all outcomes in the validation sample and subsamples. We consequently focused subsequent analyses on the 4-item scales.

*A final structure of 8 items was retained (PTGI-8), with four dimensions: Relating to Others, Life Value and Opportunities, Personal Strength, and Spiritual Change.* Other similar four-factor structures using the PTGI have been previously reported in the literature on the topic (e.g., Ho et al., 2004; Taku, et al., 2007). This structure displayed a very good fit to data and sample invariance. The four dimensions had good internal consistency and moderate test–retest reliability over a four-month period. The PTGI-8 four-factor model was then subjected to two cross-validation analyses, comparing the structure across two randomized subsamples, and across women and men. The fit indices were very similar to those of the model tested in one subsample and indicated adequate goodness of fit across samples when equality constraints were imposed on factor loadings, factor covariances, observed variable intercepts, and latent means. McDonald’s  $\omega$  coefficients for the scores of the four PTGI dimensions were all above 0.70, indicating an adequate internal consistency. The same table shows the ICC values for the test–retest reliability, which had a range of 0.56-0.68, indicating moderate temporal stability of the scores over a four-month period. The PTGI-8 total score showed good reliability ( $\alpha = 0.88$ ) and moderate test–retest reliability (ICC = 0.68). Example of items “I am able to do better things with my life” (Garrido-Hernansaiz et al, 2022). This 8-item scale assesses positive changes that have

occurred because of the respondents' efforts to deal with traumatic events. In this study, participants were asked to answer regarding CSAP. Possible responses are along a 6-point likert scale ranging from 0 (I did not experience this change as a result of my crisis) to 5 (I experienced this change to a very great degree as a result of my crisis).

### **Translation of the Scales**

To translate the scales SPAQ, PTGI8, and RFQ8 to Arabic and back translate them to English, a committee consisting of three psychology students with a history in scales translation was created. The first student translated the scales from English to Arabic, the second student translated the scales from Arabic to English, and the third student compared the back translation and the original translation. The scales ECR and PCL5 had already translated version that are used and valid.

### **Procedure**

The study protocol was submitted to Haigazian Institutional Review Board for ethical approval and was approved on Jan 27<sup>th</sup>, 2022. On Feb 5<sup>th</sup>, 2022, the researcher of the study posted the flyer of the study on the social media platforms (Facebook, Instagram, Twitter, and LinkedIn). The flyer included the following script: "If you are Lebanese adult (over the age of 18 years old), residing in Lebanon, and have experienced either physical or sexual abuse/harassment or both in their childhood", please click the link to fill the survey. The flyer included the link to the Google forms. The flyer also included an Arabic version of the script and a link to the Arabic questionnaire. Interested participants who pressed on the link of the study, were directed to the informed consent. The informed consent included information regarding the purpose of the

study, methodology of recruitment, study procedure, risks, benefits, voluntary participation, privacy, confidentiality, and termination of participation. Participants who voluntarily agreed on the informed consent were directed to complete the demographic sheet and the five scales: SPAQ, ECR, RFG8, PCL5, and PTGi8. The end date of data collection was on April 28th, 2022.

### **Ethical Concerns**

Prior to data collection, the researcher sought the approval of the SBS Ethics Committee at Haigazian University and the Lebanese American University. Moreover, participants who were interested in the study were asked to read the informed consent. The informed consent included explicit information about the purpose of the study, methodology of recruitment, study procedure, risks, benefits, voluntary participation, privacy, confidentiality, and termination of participation. Participation in this study was voluntary, and participants were allowed to withdraw from the study at any time during the completion of the online survey. Furthermore, this study did not collect any identifying information from participants and the responses of participants were kept anonymous. The data of the study were stored on a password-protected file on the researcher's desktop and will be discarded after the period of five years. Finally, as part of the Google form, participants were informed about Embrace's mental health services and contact details at the end of the study. The estimated time of survey completion was 25 minutes.

### **Pilot study**

The questionnaire was piloted with 20 participants reached through social media. The average time needed to complete the questionnaire was around 20 minutes. The participants reported no difficulty in answering the questions and well comprehension of all items.

## Data Analysis

All statistical processes were implemented using the IBM Statistics SPSS 26 software package. The steps included entering the data, coding, and categorizing to analyze and interpret the results with respect to the hypotheses of this study. Before executing main data analysis, preliminary analysis was conducted to check for missing value analysis, reliability of scales and subscales, univariate and multivariate outliers, outliers in the solution, and influential cases. Following that, sample, and scale descriptive were provided using range, mean, and standard deviation for scale variables.

The abuse variable was computed by checking for any “Yes” answers from the participants to at least one question from the SPAQ which directly asked about experiencing abuse of different kinds (questions: 1, 2, 3, 4, 6, and 7). Participants who did not answer “Yes” on any of these questions were excluded from the study data.

Scores from the ECR-S were computed into the two dimensions “Avoidance” and “Anxiety” and were then added together to yield a total score. The scores were ranked and sorted by percentile. The variable was recoded, and the scores were grouped as either “Secure” or “Insecure” were the 50<sup>th</sup> percentile indicated a cut off since high scores on the total score indicated high scores in avoidant and or anxious attachment styles.

The scores from the RFQ were recalculated as suggested by Fonagy et al. (2016) and produced two variables, one assessing each dimension of the RFQ, RFQ certainty and RFQ uncertainty. As Fonagy et al. (2016) discussed in their analysis, low scores on questions in the RFQ assessing the certainty dimension determined hyper-mentalization, and high scores on

questions in the RFQ assessing the uncertainty dimension determined hypo-mentalizing instead of genuine reflective functioning.

The authors advise calculating an “Uncertainty about mental states” score (RFQU) and a “Certainty about mental states” score (RFQC) by recoding items. For example, the RFQU score recodes items such that scores at 4 or below are recoded as zeros, while 5 is recoded as 1, 6 as 2, and 7 as 3. For the certainty scores, items are recoded such that scores of 4 or higher are coded as zeros, a score of 3 is recoded as 1, 2 as 2, and 1 as three. Additionally, we calculated a mean score based on the mean of all 8 items (RFQ-8).

## Chapter 4

### Results

The purpose of this quantitative study was to determine possible protective factors that aid in the development of post-traumatic growth after the incidence of child sexual/or physical abuse, and in lowering the risk of staying at the level of PTSD symptoms. The protective factors studied were attachment and reflective functioning among a sample of Lebanese adults (18+) who are residing in Lebanon and have experienced any incidence of child sexual and/or physical abuse during childhood. A total of 101 participants participated in this study and only 85 met the inclusion criteria.

All statistical processes were implemented using the IBM Statistics SPSS 26 software package. The steps included entering the data, coding, and categorizing to analyze and interpret the results with respect to the hypotheses of this study. The test measures are comprised of frequencies, percentages, and overall calculations. The variables (scales / measurements) in this study are *SPAQ*, *PCL-5*, *PTGI-8*, *ECR*, and *RFQ-8*, and descriptive alone with correlational analysis were used.

## Missing Value Analysis

There were no missing values in any of the scales. There were only skipped answers in the sexual and physical abuse questionnaire, when participants were asked to state the age at which they first experienced abuse and if they ever shared it with someone. This didn't affect the analysis of the data, as it was only used in the descriptive analysis as further information.

## Normality

Null hypothesis (H0): the data is normally distributed; Alternative hypothesis (H1): the data is not normally distributed. If  $P < 0.05$ , we reject the null hypothesis.

The normality sample was investigated using Kolmogorov-Smirnov test of normality. The normality test showed that the p-values of scales: PCL5, ECR and RFQ8, were less than 0.05. Hence, these scales are not normally distributed, so we should use statistical nonparametric tests for our hypothesis. But normality test for PTGI-8 scale showed a p-value equal 0.200 greater than 0.05, hence it's normally distributed. Thus, we should use statistical parametric tests for hypothesis that relate to this scale (Table 1a).

**Table 1a: Tests of Normality**

Scale / measurements	Tests of Normality: Kolmogorov-Smirnov			Decision
	Statistic	df	P- value	
PCL-5	.115	85	0.008	p-value < 0.05, then they are not normally distributed
PTGI-8	.076	85	<b>0.200</b>	<b>p-value &gt; 0.05, then they are normally distributed</b>
ECR	.111	85	0.011	p-value < 0.05, then they are not normally distributed

RFQ-8 Mean	.244	85	0.000	p-value < 0.05, then they are not normally distributed
RFQ-Uncertainty	.370	85	.000	p-value < 0.05, then they are not normally distributed
RFQ-Certainty	.257	85	.000	p-value < 0.05, then they are not normally distributed

### Sample Descriptive

The final sample size was 85 participants (16.5% males, 82.4% females, and 1.2% other) who have been residing in Lebanon and experienced abuse during their childhood. The age of participants ranged between 18 and 57 (Mean= 27.81; SD= 6.98), with most participants aged between 20 and 29 years old (61.2%) (Tables 1b and 2). In line with this, an equal percentage of 37.6% of participants reported having undergraduate/Bachelor's degree and graduate/master's degree, 10.65 hold a post-graduate/ doctorate degree, 9.4% hold high school degrees, and 2.4% haven't reached high school. In addition, 58.8% of participants were employed, 21.2% were unemployed, and 11.8% work as freelancers, with 8.2% remaining for other option. In the demographic's questions, one question of "have you been to therapy" was asked to control for the effect of therapy on post-traumatic growth. 55.3% of participants reported going to therapy and 44.7% of them have never gone (Graph 1).

70% of participants have reported someone touching their sex organs in a sexual manner and against their will. Out of these, the highest percentage 43.5% reported experiencing this incident at the age 6 years or older but below than 12 years (Table 2). 60% of participants reported being forced to touch someone's sex organs in a sexual manner and against their will, and the highest percentage 31.8% reported experiencing this incident at the age 6 years or older but below than 12 years (Table 3). 52.9% of participants reported being forced to have sexual intercourse against their will with a higher percentage (21.2%) of that happening at age 16 years

or older (Table 4). 40% of participants reported having another unwanted or threatening experience not included in the scale (Table 5). 23% of participants who reported those experiences shared a short description of the experience (Table 6). 62.4% of participants who reported experiencing at least one incident of the ones mentioned before, reported discussing it with someone, and the highest percentage (37.6%) reported having discussed it with a medical worker (Table 7).

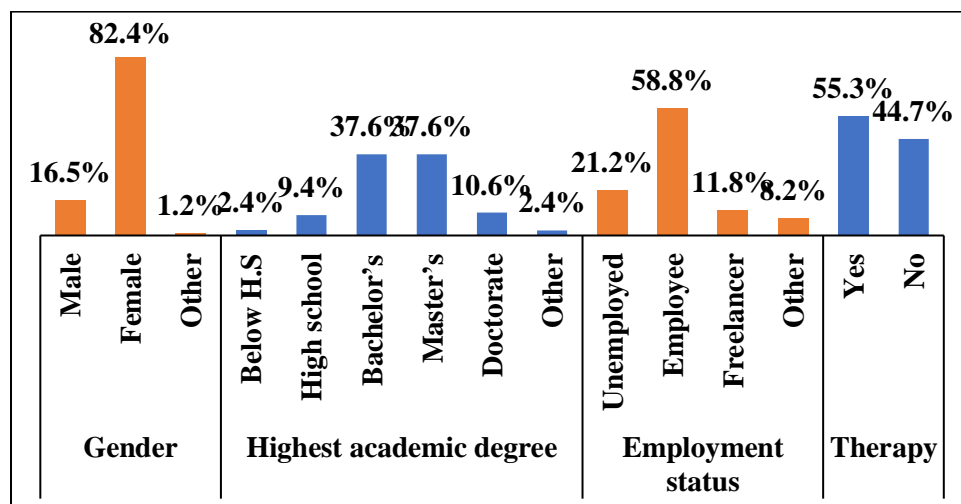
30.6% of participants reported been intentionally treated by someone in such a way that they suffered physical injury with equal percentage of 9.4% of that happening between the age 12 and 16 years old, and 16 years or older (Table 8). 28.2% of participants reported experiencing something that is not listed before and which they have perceived as violent (Table 9). 42% of participants who answered yes shared a short description of the experience (Table 10). 29.4% of participants who answered on the previous 2 questions reported discussing the incident of physical abuse with someone with the highest percentage (18.8%) being with medical workers (Table 11).

Finally, 57.6% of participants reported interest in talking with someone abuse the incident of abuse (Table 12).

To be able to create a new variable of abuse as an independent variable, abuse was first categorized into 3 categories before being measured as one incident. 53% of participants reported being sexually abused, 9% reported physical abuse, and 38% reported both physical and sexual abuse (Table 1c). However, abuse was then used as one category in the analysis, knowing that the mean between categories was highly different, and the interest of the study is to test moderation between the incident of abuse whether it's sexual, physical, or both, but not in

comparing each category. Thus, abuse was then taken as frequency of how many answers were answered by yes including a higher frequency of the abuse (Corliss et al., 2002; Shaw & Krause, 2002). This was done because, based on this sample, individuals who answered “yes” on more than one question had higher scores on PTS.

**Graph 1: Demographics Information**



**Table 1b: Age Descriptive Results**

	Mean	SD	Minimum	Maximum
<b>Age</b>	27.81	6.98	18.0	57.0

Age	Frequency	Percent
<20	5	5.9%
20-29	52	61.2%
30-39	21	24.7%
40-49	3	3.5%
50-60	2	2.4%
No answer	2	2.4%
<b>Total</b>	<b>85</b>	<b>100.0%</b>

**Table 1c: Types of Abuse**

<b>Abuse</b>	<b>Frequency</b>	<b>Percent</b>
Sexual abuse	45	53%
Physical abuse	8	9%
Both	32	38%
<b>Total</b>	<b>85</b>	<b>100%</b>

**1) Has anyone ever touched your sex organs in a sexual manner and against your will?**

**Table 2:**

		<b>Frequency</b>	<b>Percent</b>
<b>Question 1</b>	Yes	66	77.6%
	No	19	22.4%
<b>If yes, how old were you when it first happened?</b>	Less than 6 years old	7	8.2%
	6 years old or older, but < 12 years old	37	43.5%
	12 years old, but < 16 years old	15	17.6%
	16 years old or older	7	8.2%
	Not applicable	19	22.4%

**2) Has anyone ever forced you to touch his or her sex organs in a sexual manner and against your will?**

**Table 3**

		<b>Frequency</b>	<b>Percent</b>
<b>Question 2</b>	Yes	51	60.0%
	No	34	40.0%
<b>If yes, how old were you</b>	Less than 6 years old	5	5.9%

<b>when it first happened?</b>	6 years old or older, but < 12 years old	27	31.8%
	12 years old, but < 16 years old	13	15.3%
	16 years old or older	6	7.1%
	Not applicable	34	40.0%

3) **Has anyone ever tried to force you to have sexual intercourse against your will?**

**Table 4**

		<b>Frequency</b>	<b>Percent</b>
<b>Question 3</b>	Yes	45	52.9%
	No	40	47.1%
<b>If yes, how old were you when it first happened?</b>	Less than 6 years old	4	4.7%
	6 years old or older, but < 12 years old	11	12.9%
	12 years old, but < 16 years old	12	14.1%
	16 years old or older	18	21.2%
	Not applicable	40	47.1%

4) **Have you ever had another unwanted or threatening experience that is not named above?**

**Table 5**

		<b>Frequency</b>	<b>Percent</b>
<b>Question 4</b>	Yes	34	40.0%
	No	49	57.6%
	No answer	2	2.4%
<b>If yes, how old were you when it first happened?</b>	Less than 6 years old	2	2.4%
	6 years old or older, but < 12 years old	15	17.6%
	12 years old, but < 16 years old	6	7.1%
	16 years old or older	11	12.9%
	Not applicable	49	57.6%
	No answer	2	2.4%

**If yes, you may or may not give a short description of the experience**

**Table 6**

A married neighbor kissed me on the mouth and an older cousin kissed me on the mouth
Coercion and manipulation for sex
Consensual but unwanted and uncomfortable
Cyber sexual harassment
I was kissed against my will
My cousin used to teach me how sexual relations operate when I was less than 10 years old
My girlfriend at the time wanted to kiss in public

Touched in a sexual manner not on my sex organs
Touching legs close to sexual organs; trapping me in water to force sexual intimacy
Woken up in the middle of the night with threats and shaming (including spitting on my face)
Physical abuse

**5) If you have had one of the above experiences, have you ever discussed it with anyone?**

**Table 7**

		<b>Frequency</b>	<b>Percent</b>
<b>Question 5</b>	Yes	53	62.4%
	No	23	27.1%
	No answer	9	10.6%
<b>If yes, with whom? (Multiple choices)</b>	With a relative	19	22.4%
	With boyfriend(s) or girlfriend(s)	26	30.6%
	With non-medical worker	4	4.7%
	With medical workers	32	37.6%

6)Have you ever intentionally been treated by someone in such a way that you suffered physical injury?

Table 8

		Frequency	Percent
<b>Question 6</b>	Yes	26	30.6%
	No	59	69.4%
<b>If yes, how old were you when it first happened?</b>	Less than 6 years old	4	4.7%
	6 years old or older, but < 12 years old	6	7.1%
	12 years old, but < 16 years old	8	9.4%
	16 years old or older	8	9.4%
	Not applicable	59	69.4%

7)Have you ever experienced something that is not listed above and which you have perceived as violent?

Table 9

		Frequency	Percent
<b>Question 7</b>	Yes	24	28.2%
	No	58	68.2%
	No answer	3	3.5%
<b>How old were you when it first happened?</b>	Less than 6 years old	5	5.9%
	6 years old or older, but < 12 years old	7	8.2%
	12 years old, but < 16 years old	9	10.6%
	16 years old or older	2	2.4%
	Not applicable	58	68.2%
	No answer	4	4.7%

**If yes, can you describe it briefly?**

**Table 10**

Being beaten with a belt	physical harm, emotional harm, bullying at school (much worse than the sexual stuff!
Being followed to be kicked and/or beaten (didn't leave physical marks)	Threatened to be injured
Being spoken to and screamed at in a violent way, and then eventually hit	throwing hard things, chair for example, on me
Gender based violence	Throwing objects and breaking things
I have been threatened with scandal and abandonment for what I used to pass through	Verbal abuse
My mother used to pin me to the ground and spit in my mouth to humiliate me as a kid when i disobeyed her or did something wrong. My father used to pin me to the ground and hold a knife against my penis whenever i cried or did something "unmanly" like when I	Verbal violence gaslighting and guilt tripping

wore my sister's backpack that was pink.	
Non-physical violence	ضربت بعصا على رجلي

8)If you have ever experienced one of these things (question 6 and 7), have you ever discussed it with anyone?

Table 1

		Frequency	Percent
<b>Question 8</b>	Yes	25	29.4%
	No	19	22.4%
	No answer	41	48.2%
<b>If yes, with whom? (Multiple choices)</b>	With a relative	12	14.1%
	With boyfriend(s) or girlfriend(s)	9	10.6%
	With non-medical worker	1	1.2%
	With medical workers	16	18.8%

9)If you have had one of the above experiences, would you like to talk to someone about it?

Table 2

	Frequency	Percent
Yes	49	57.6%
No	12	14.1%
Don't know	15	17.6%
No answer	9	10.6%
<b>Total</b>	<b>85</b>	<b>100.0%</b>

## Scale Descriptive

Table 13a below shows the PCL5, PTGi8, ECR, and RFQU and RFQU descriptive scales. The sum of the items of each scale were computed. For PCL5, the overall mean was  $M= 7.89$  with a  $SD=4.855$  which is higher than the midpoint. Scores on the PTGi8 scale had a mean of  $M= 22.38$  with an  $SD= 11.756$  which is lower than the midpoint. For ECR, the overall mean was  $M=48.74$  with an  $SD= 13.42$  indicating that the sample had above average scores. As for the number of traumas, the mean  $M= 15$  lifetime traumas with  $SD 22$ .

**Table 13a: Scales descriptive results**

	Mean	SD	Min	Max
<b>PCL-5</b>	7.89	4.855	0.0	16.0
<b>PTGi-8</b>	22.38	11.756	0.0	48.0
<b>ECR</b>	48.74	13.423	18.0	78.0

## Reliability Analysis

Internal reliability of PCL5, PTGI8, ECR, RFQC, RFQU, and SPAQ were investigated using Cronbach's Alpha. Results indicated that all scales were reliable. The PCL5 and PTGI8 had very good reliability with  $\alpha= 0.842$  and  $\alpha= 0.866$  respectively. Also, the ECR and RFQC & RFQU had good reliability with  $\alpha= 0.773$ ,  $\alpha= 0.69$ , and  $\alpha= 0.763$  respectively. It is important to note that the below data included the Arabic and English version of the scales simultaneously which presented a reliability concern. This was due to a technical error of the program used.

Though it is important to note that only 9% of the participants filled the Arabic version and 91% of the participants filled the English version (Table 13b).

**Table 13b: Reliability Statistics**

Scale / measurements	N of Items	Cronbach's Alpha Current Study	Cronbach's Alpha Previous Studies
PCL-5	4	0.842	0.9
PTGI-8	8	0.866	0.88
ECR	12	0.773	0.76
RFQ-Uncertainty	6	0.69	0.75
RFQ-Certainty	6	0.763	0.80
SPAQ	9	0.80	0.78

First, a correlation between PCL5 and PTGI8 was made. There showed to be a correlation between them with a P-value =  $0.011 < 0.05$ , which is a significant correlation. However, according to the value of Pearson (Pearson Correlation = 0.274), we note a positive correlation between these two constructs that is not a strong one (Table 14).

**Table 3: Correlation between PTGI-8 and PCL-5**

Correlation	N	Pearson Correlation	P-Value	Decision
PTGI-8	85	0.274**	0.011	Significant
PCL-5				

To control for the effect of therapy on PTS and PTG, a t-test was made between category therapy (yes/ no categories) and PCL5 and the same one with PTGi8. No significance was remarked; hence the variables are not statistically dependent (Table 15).

**Table 15:**

Scale	Therapy	N	Mean	Std. Dev.	P-Value	Decision
PCL-5	Yes	47	8.57	4.605	0.152	Not Significant
	No	38	7.05	5.083		
PTGi-8	Yes	47	21.17	10.833	0.296	Not Significant
	No	38	23.87	12.796		

A correlation between RFQ8 and PCL5 was made. Knowing that RFQ8 does not have a cut off score, the 2 dimensions of certainty and uncertainty were included. It was shown that the correlation between the 2 variables is significant with P-values < 0.05. According to the Pearson value, it was shown that there is a positive correlation between the PCL5 and the uncertainty of the RFQ, concluding that on the uncertainty dimension, higher scores showing hypo mentalizing are showing higher scores on PCL5. However, on the certainty dimension, higher scores concluding genuine “healthy” mentalizing are showing lower scores on PCL5 (Table 16).

**Table 16: Correlation between RFQ-8 and PCL-5**

Variable 1	Variable 2	N	Pearson Correlation	P-Value	Decision
PCL-5	RFQ-Uncertainty	85	0.228*	0.036	Significant
	RFQ-Certainty	85	-0.447**	0.000	Significant
	RFQ-8 Mean	85	0.476**	0.000	Significant

A correlation between RFQ8 and PTGi8 was made. Knowing that RFQ8 does not have a cut off score, the 2 dimensions of certainty and uncertainty were included. It was shown that the correlation between the 2 variables is significant with P-values < 0.05.

According to the value of Pearson, it is shown that there is a positive correlation between PTG and the uncertainty dimension of the RFQ, concluding that when higher scores on the uncertainty dimension showing hypo mentalization “unhealthy” are recorded, higher scores on the PTGi8 are shown. In addition, a negative correlation was remarked with the certainty dimension, showing that when lower scores showing hyper mentalization are recorded, higher scores on PTG are shown (Table 17). Hence, on the uncertainty dimension, hypo mentalization is correlated with higher post-traumatic growth score, while on the certainty dimension, “genuine” mentalization is correlated with higher PTG scores.

**Table 17: Correlation between RFQ-8 and PTGI-8**

<b>Variable 1</b>	<b>Variable 2</b>	<b>N</b>	<b>Pearson Correlation</b>	<b>P-Value</b>	<b>Decision</b>
<b>PTGI-8</b>	<b>RFQ-Uncertainty</b>	85	0.450**	0.001	Significant
	<b>RFQ-Certainty</b>	85	-0.497**	0.000	Significant
	<b>RFQ-8 Mean</b>	85	0.429**	0.000	Significant

To test if attachment predicts PTS scores, t-test was done between PCL5 and ECR, that showed significance. There is a dependence between PCL-5 and ECR level, with a P-value = 0.000 < 0.05. In addition, in comparison of means, the mean of PCL-5 for Secure group is (5.64) it is less than mean of PCL-5 for insecure group, which aligns with the hypothesis stating that individuals with secure attachment score lower on PTS than individuals with insecure attachment (Table 19).

**Table 19: t-test between PCL-5 and ECR levels**

<b>Dependent</b>	<b>Independent: ECR</b>	<b>N</b>	<b>Mean</b>	<b>Std. Dev.</b>	<b>P-Value</b>
<b>PCL-5</b>	Secure	45	5.64	4.58	0.000
	Insecure	40	10.43	3.83	Significant
	<b>Total</b>	<b>85</b>	<b>7.89</b>	<b>4.86</b>	

To test if attachment predicts PTG scores, t-test was done between PTGI-8 and ECR, that showed no significance. There is no dependence between PTGI8 and ECR, with a P-value= 0.211 > 0.05. In addition, in comparison of means, the mean for PTG for secure group is (20.87) which is lower than the mean of PTG for insecure group (24.08), which aligns with the hypothesis stating that individuals with secure attachment score higher on PTG compared to those with insecure attachment (Table 20).

**Table 20: t-test between PTGI-8 and ECR levels**

<b>Dependent</b>	<b>Independent: ECR</b>	<b>N</b>	<b>Mean</b>	<b>Std. Dev.</b>	<b>P-Value</b>
<b>PTGI-8</b>	Secure	45	20.87	13.23	0.211
	Insecure	40	24.08	9.72	Not Significant
	<b>Total</b>	<b>85</b>	<b>22.38</b>	<b>11.76</b>	

In an attempt of studying moderation, we changed the categorical variable of abuse into a numeric one by differentiating between frequency of abuse by considering scores of how many questions related to the history of abuse were answered as “yes” in the scale.

Then, we ran a multiple regression including the moderators separately with the dependent variables and abuse.

**Table 21a: Moderating Role of Attachment between abuse and PTS**

Model	Dependent	Independent (Predictors)	Model Summary		F	Model
			R	R Square		P-Value
1	PCL-5	Abuse	0.038	0.001	0.120	0.730
2		Abuse and ECR	0.517	0.267	14.948	0.000
			Beta	t	Sig.	
1	PCL-5	Abuse	0.038	0.346	0.730	
2	PCL-5	Abuse	0.522	5.453	0.000	
		ECR	0.120	1.258	0.212	

- **Part 1 – Models P-Value:** for **model 1**, based on p- value (Sig.) = 0.730 >0.05, this means this model is not significant. For **model 2**, based on p- value (Sig.) = 0.000 <0.05, this means this model is significant (Table 21a).
- **Part 2 - Model Summary:**
  - **Model 1:** Based on the R-square Abuse can explain 0.1% of the variability in PCL-5, and Based on the value of R, predictors are correlated 3.8% between them. So, this model is very weak and not significant.
- **Model 2:** Based on the R-square Abuse and ECR can explain 26.7% of the variability in PCL-5, and Based on the value of R, Predictors are correlated 51.7% between them (Table 21a).
- **Part 3 - Conclusion:** Abuse variable can't predict alone PCL-5 and it's not significant, but with ECR moderator our regression is best. In addition, a positive t value positive moderation, hence a higher score of ECR (stating insecure attachment) shows higher score on PCL5, and a lower one (stating secure attachment) shows a lower score on PCL5. (Table 21a).

**Table 21b: Moderating Role of Attachment between abuse and PTG**

Model	Dependent	Independent (Predictors)	Model Summary		F	Model
			R	R Square		P-Value
1	PTGi-8	Abuse	0.070	0.005	0.406	0.526
2		Abuse and ECR	0.070	0.005	0.201	0.818
			<b>Beta</b>	<b>t</b>		<b>Sig.</b>
1	PTGi-8	Abuse	-0.070	-0.637		0.526
2	PTGi-8	Abuse	-0.070	-0.630		0.531
		ECR	-0.003	-0.027		0.979

- **Part 1 – Models P-Value:** for model 1 and 2, based on p- values (Sig.) >0.05, this means those models are not significant. (Table 21b)
- **Part 2 - Model Summary:**
  - **Model 1:** Based on the R-square Abuse can explain 0.5% of the variability in PTGi-8, and Based on the value of R, Predictors are correlated 7% between them. So, this model is very weak and not significant.
- **Model 2:** Based on the R-square Abuse and ECR can explain 0.5% of the variability in PTGi-8, and Based on the value of R, Predictors are correlated 7% between them, and this model is very weak and not significant (Table 21b).
- **Part 3 - Conclusion:** Abuse variable can't predict alone PTGi-8 and it's not significant, and same with ECR moderating the regression, hence hypothesis 1b is rejected.

**Table 22a: Moderating Role of Reflective Functioning between abuse and PTS**

Model A	Dependent	Independent	Model Summary		F	Model
			R	R Square		P-Value
1	PCL-5	Abuse	0.038	0.001	0.120	0.730
2		Abuse and RFQ-Certainty	0.472	0.223	11.779	0.000
			<b>Beta</b>	<b>t</b>		<b>Sig.</b>
1	PCL-5	Abuse	0.038	0.346		0.036
2	PCL-5	Abuse	0.159	1.585		0.117
		RFQ-Certainty	-0.486	-4.838		0.000

Model B	Dependent	Independent	Model Summary		F	Model
			R	R Square		P-Value
1	PCL-5	Abuse	0.038	0.001	0.120	0.730
2		Abuse and RFQ-Uncertainty	0.237	0.056	2.433	0.000
			<b>Beta</b>	<b>t</b>		<b>Sig.</b>
1	PCL-5	Abuse	0.038	2.130		0.036
2	PCL-5	Abuse	0.065	0.602		0.549
		RFQ-Uncertainty	0.235	2.177		0.000

- **Model A:**

**Part 1 – Models P-Value:** for **model 1**, based on p- value (Sig.) = 0.730 >0.05, this means this model is not significant. For **model 2**, based on p- value (Sig.) = 0.000 <0.05, this means this model is significant.

- **Part 2 - Model Summary:**

- **Model 1:** Based on the R-square Abuse can explain 0.1% of the variability in PCL-5, and Based on the value of R, Predictors are correlated 3.8% between them. So, this model is very weak and not significant.
- **Model 2:** Based on the R-square Abuse and RFQ-Certainty can explain 22.37% of the variability in PCL-5, and Based on the value of R, Predictors are correlated 47.2% between them.

**Part 3 - Conclusion:** Abuse variable can't predict alone PCL-5 and it's not significant, but with RFQ-Certainty moderating, regression is best. With the certainty dimension, the moderation showed a negative direction  $t = -4.838$ .

#### **Model B:**

**Part 1 – Models P-Value:** for **model** based on p- values (Sig.)  $>0.05$ , means that model is not significant. For model 2, p- value (Sig.) =  $0.000 <0.05$ , this means this model is significant.

- **Part 2 - Model Summary:**

- **Model 1:** Based on the R-square Abuse can explain 0.1% of the variability in PCL-5, and Based on the value of R, Predictors are correlated 3.8% between them. So, this model is very weak and not significant.
- **Model 2:** Based on the R-square Abuse and RFQ-Uncertainty can explain 5.6% of the variability in PCL-5, and based on the value of R, Predictors are correlated 23.7% between them.

**Part 3 - Conclusion:** Abuse variable can't predict alone PCL-5 and it's not significant, but with RFQ-Uncertainty moderating, the regression is significant, with a positive directionality of the model  $t = +2.117$ .

**Table 22a: Moderating Role of Reflective Functioning between abuse and PTG**

Model A	Dependent	Independent	Model Summary		F	Model
			R	R Square		P-Value
1	PTGi-8	Abuse	0.070	0.005	0.406	0.526
2		Abuse and RFQ-Certainty	0.500	0.250	13.693	0.000
			<b>Beta</b>	<b>t</b>		<b>Sig.</b>
1	PTGi-8	Abuse	-0.070	-0.637		0.526
2	PTGi-8	Abuse	0.058	0.586		0.559
		RFQ-Certainty	-0.512	-5.182		0.000

Model B	Dependent	Independent	Model Summary		F	Model
			R	R Square		P-Value
1	PTGi-8	Abuse	0.070	0.005	0.406	0.526
2		Abuse and RFQ-Uncertainty	0.359	0.250	3.065	0.000
			<b>Beta</b>	<b>t</b>		<b>Sig.</b>
1	PTGi-8	Abuse	-0.070	-0.637		0.526
2	PTGi-8	Abuse	-0.053	-0.485		0.629
		RFQ-Uncertainty	0.144	1.311		0.000

**Model A:**

- **Part 1 – Models P-Value:** for **model 1**, based on p- value (Sig.) = 0.526 >0.05, this means this model is not significant. For **model 2**, based on p- value (Sig.) = 0.000 <0.05, this means this model is significant.
- **Part 2 - Model Summary:**
  - **Model 1:** Based on the R-square Abuse can explain 0.5% of the variability in PTGi-8, and Based on the value of R, Predictors are correlated 7% between them. So, this model is very weak and not significant.
  - **Model 2:** Based on the R-square Abuse and RFQ-Certainty can explain 25% of the variability in PTGi-8, and Based on the value of R, Predictors are correlated 50% between them.

- **Part 3 - Conclusion:** Abuse variable can't predict alone PTGi-8 and it's not significant, but with RFQ-Certainty moderating the regression, it showed significance with a negative direction  $t = -5.182$

### Model B:

- **Part 1 – Models P-Value:** for **model 1**, based on p- value (Sig.) = 0.526 >0.05, this means this model is not significant. For **model 2**, based on p- value (Sig.) = 0.000 <0.05, this means this model is significant.
- **Part 2 - Model Summary:**
  - **Model 1:** Based on the R-square Abuse can explain 0.5% of the variability in PTGi-8, and Based on the value of R, Predictors are correlated 7% between them. So, this model is very weak and not significant.
  - **Model 2:** Based on the R-square Abuse and RFQ-Uncertainty can explain 2.5% of the variability in PTGi-8, and Based on the value of R, Predictors are correlated 35.9% between them, and this model is significant.
- **Part 3 - Conclusion:** Abuse variable can't predict alone PTGi-8 and it's not significant, but with RFQ-Uncertainty moderating the regression, it showed significance with a positive direction  $t = 1.311$ .

And finally, to study the relation between the two variables playing role in the relation between abuse, PTS, and PTG, a correlation was made between RFQ (C and U) and ECR.

**Table 23: Correlation between RFQ-8 and ECR**

Variable 1	Variable 2	N	Pearson Correlation	P-Value	Decision
ECR	RFQ-Uncertainty	85	.451*	0.013	Significant
	RFQ-Certainty	85	-.241*	0.027	Significant
	RFQ-8 Mean	85	.395**	0.000	Significant

There is a significant correlation between ECR and both dimensions of the RFQ with a P-values  $< 0.05$ . According to the Pearson correlation, a positive correlation is shown between ECR and the Uncertainty dimension, hence higher levels of ECR indicating a direction towards unhealthy attachment is correlated to higher scores on the uncertainty dimension indicating hypo mentalization. On the other hand, a negative correlation was shown between ECR and the certainty dimension of RFQ, hence lower scores on ECR percentile in direction of secure attachment are correlated to higher scores on certainty dimension indicating “genuine mentalizing” (Table 23).

## **Chapter 5**

### **Discussion**

#### **Inclusion Criteria and Demographics**

The aim of this research study was to study the role of attachment and reflective functioning in the relation between child sexual and physical abuse, with PTSD and post-traumatic growth. After reviewing the literature for similar studies, the inclusion criteria were decided as to include Lebanese adults living in Lebanon and have experienced child sexual and/or physical abuse. The reason behind choosing this inclusion criteria is to control for extraneous variables that might affect post-traumatic growth and PTS, if the person isn't residing in Lebanon. In addition, choosing only Lebanese adults is to control for cultural variables that might affect perception around attachment. Choosing to include only individuals who experienced abuse was to be able to focus on PTS symptoms after the incidence of abuse and not general symptoms related to other traumas. If a person hasn't experienced abuse filled in the study, post-traumatic growth and PTS will be linked to other traumas if any, and hence won't contribute to the aim of the study. Finally, a question on whether a person has been to therapy before or not was included in the demographics to study if it can be a factor aiding in experiencing post-traumatic growth, and hence masking the effect of attachment and reflective functioning. The purpose of this study was viewed as important because child abuse is an alarming issue, especially in Lebanon. Many non-governmental organizations are targeting their mission towards preventing child abuse, raising awareness regarding this topic, and managing abuse cases while coming up with a complete intervention plan. This study, among very few in Lebanon studying child abuse, can inform abuse victims, their caregivers, and mental health

professionals of variables that can help children and adults who have experienced child sexual and/or physical abuse experience post-traumatic growth.

### **Sample Size**

In this study, 236 participants should have been recruited for have good effect size and increased power. However, due to the restrictive criteria, only 125 participants were willing to fill out the questionnaires, among which only 85 were eligible to be included in the study. Some people who have experienced child abuse preferred not to participate as they expressed worry in having flashbacks and uncomfortable emotions. Some others would prefer not to acknowledge the abuse that happened to them. For this, it took two months post IRB approval to recruit participants using different strategies and settings, however the number of participants remained increasing slightly. Hence, with the recruited sample, and a small to medium effect size, the power of the study is reduced hugely. This is included as a limitation of the current study. The main findings of this study were congruent with some hypotheses concluding that attachment and reflective functioning can be protective factors against the development of PTS after the incident of abuse, however, do not have the same effect on post-traumatic growth.

### **Correlation between dependent variables**

A significant correlation between post-traumatic growth (PTG) and PTS that is not very strong, however this correlation was positive with a Pearson correlation of 0.274. One recent longitudinal study found a positive relationship between posttraumatic growth and moderate levels of PTSD symptoms (Kleim & Ehlers, 2009); however, this does not imply that one condition causes the other; rather, it suggests that trauma symptoms may coexist with other

growth outcomes or that there are multiple trajectories within the traumatized populations (Bonanno & Mancini, 2012; Frazier et al., 2004). Hence, the result of correlation is not surprising, however, it brings to our attention a limitation related to the difficulty studying causation. In addition, it informs us that, if results do not show strictly the relations formulated in the hypothesis, it does not inform rejection of the hypothesis. This is because, as we can see from the correlation, higher scores of post-traumatic growths (PTG) do not necessarily mean that scores on PTS should be low. One of the most typical effects for child sexual abuse (CSA) survivors is post-traumatic stress (PTS) (Houshyar & Kaufman, 1999). For instance, a study by Kendall-Tackett, Williams, and Finkelhor (1993) discovered that PTS occurred in about 32% of children who were exposed to CSA. According to Paolucci, Genuis, and Violato (2001), CSA increases the likelihood of experiencing such symptoms by 143% in adulthood. Numerous findings have been reported from studies looking at PTS and PTG. While a study of adolescent exposure to terror found a stronger positive correlation ( $r .4$ ), another review found that the correlations between the two ranged from  $r .2$  to  $r.2$  (Zoellner & Maercker, 2006).

Other variables' relationships to PTG may also be impacted by PTS. According to the "scarring" paradigm (Shahar, Noyman, Schnidel-Allon, & Gilboa-Schechtman, 2013), PTS is characterized by unpleasant thoughts, feelings, and experiences that may "color" how patients understand their own thoughts, pictures, and internal sensations as well as events that happen to them outside. To understand how PTS relates to PTG, it is crucial to look at how other factors interact with PTS.

### **Descriptives of SPAQ scale**

From the studied sample, 53% experienced sexual abuse only, 9% experienced physical abuse only, and 38% experienced both sexual and physical abuse. Hence, as used it previous

studies, abuse will be used as one construct in this study “incident of abuse”. In addition, 55.3% of participants reported gone to therapy before and 44.7% reported never going to therapy before. This percentage, though surprising, is a positive one. However, it can show us that the included sample is from a population who is aware of the importance of mental health, which speaks of other variables that might aid in growth after trauma other than the studied moderators. From the t-test done to test prediction between therapy and the dependent variables (PTS and PTG), we concluded that from the recruited sample, PTS and PTG levels have no statistical dependence on therapy, hence this value is controlled in the study.

### **Attachment, Post-traumatic Stress, and Post-Traumatic Growth**

To test dependence between attachment and both dependent variables, to further facilitate working through the hypotheses related to attachment (H1a and H1b), a t-test was done first between ECR (secure vs insecure) and PCL5 (Table 19), and then between ECR (secure vs insecure) and PTGi8. A significant relation is shown between attachment and post traumatic stress symptoms, where individuals who are securely attached (M=5.64) have lower PTS score than insecurely attached individuals (M=10.43). However, this dependency was not significant between attachment and PTG. To further explore the role of attachment, multiple regression was done (Table 21a and 21b). The regression informs us of a moderating role of attachment between child abuse and PCL with 26.7% variability in PTS scores. However, the regression aiming to test attachment as a moderator in the relation between child abuse and PTG, no significance of this moderation was shown. This data cannot be generalized though, since the scale SPAQ can't give us numerical results that are not based on assumptions. Hence, if an inclusion criterion wasn't use, the SPAQ score would be a good option for comparing between people who

experienced abuse and those who didn't, while testing for moderation. However, with the inclusion criteria, and knowing that all sample recruited are victims of child abuse, a scale rating the intensity of the abuse, or its perception would've been more informative, especially in moderation. Hence, from the data we have, we can conclude that attachment plays a protective role in individuals who experienced childhood abuse, whereby securely attached individuals score lower on posttraumatic stress compared to insecurely attached individuals. However, it seems that attachment did not play a role regarding post traumatic growth.

Secure individuals (low anxiety, low avoidance) can rely on their attachment figures as a source of safety, comfort, and support. Although the potential causal direction is unclear, sample evidence suggests that child abuse and adult attachment are associated. Secure attachment with one's parents and/or romantic partners was negatively associated with childhood sexual victimization within clinical and community samples (Aspelmeier, Elliott, & Smith, 2006). A review of the literature regarding the relationship between child abuse, attachment security, and child abuse outcomes reveals that, with few exceptions, the majority of hypotheses and the theoretical rationale on which they are based are quite consistent with what Baron and Kenny (1986) define as moderated relationships. As measured in previous research, the influence of adults' perceived impact of their experience with childhood sexual abuse (as measured by the IES-R; Weiss & Marmar, 1996) on their experience of posttraumatic growth (as measured by the PTGI; Tedeschi & Clalhoun, 1996) is mediated by their attachment style (as measured by the ECR-S; Wei et al., 2007).

## **Reflective functioning, Post-traumatic Stress, and Post-Traumatic Growth**

Based on previous literature, due to the complicated model of RFQ scale, the best was to study the correlation between reflective functioning (RFQ) and post-traumatic stress (PTS). The results of the correlation have shown that individuals with healthy mentalization reported lower scores of PTS and individuals with unhealthy mentalization reported higher scores of PTS and thus aiding in confirming the hypothesis. The same correlation was done to test hypothesis H2b, however, RFQ was studied in relation to post-traumatic growth (PTG). On the uncertainty dimension, hypo mentalization is correlated with higher post-traumatic growth score, while on the certainty dimension, “genuine” mentalization is correlated with higher PTG scores.

In an attempt of testing the moderating role of reflective functioning in the relation between abuse and the dependent variables (PTS and PTG), a regression model was done with RFQ being the moderator with both its certainty and uncertainty dimensions. Based on R square, abuse and RFQ-certainty can explain 25% of variability in PTG scores, and they are 50% correlated. Hence, abuse alone can't predict PTG, however, with RFQ- certainty as a moderator, it showed significance in the negative direction, confirming the previous correlation. Same goes for the uncertainty dimension, however variability is 2.5% and moderation is in a positive direction further emphasizing on the hypothesis. However again, this moderation cannot be generalized, for the limitation the SPAQ has on this study. However, we can confirm from the first analysis that reflective functioning also plays a role in the relation between both PTS and PTG in abused individuals, whereby “genuine mentalization” aid in higher scores of PTG and lower on PTS.

### **Correlation of moderators**

Finally, attachment and reflective functioning seem to be correlated in this study. This is supported by other studies indicating that secure attachment aids in healthy mentalizing. Hence, the interaction of these variables in prediction of post-traumatic stress and post traumatic growth in individuals who experienced child abuse can be also tested.

### **Limitations**

The convenient sampling strategy was required because the researcher wanted to use a sample of individuals with a certain set of characteristics (Lebanese adults, residing in Lebanon, and have experienced child sexual and/or physical abuse). However, while doing the analysis, it was noticed that the sexual and physical abuse questionnaire helped researchers in descriptive data, however, wasn't effective in showing a numerical value to be studied in the analysis, especially knowing that participants who participated in the study were only ones who experienced child abuse, and thus no other group to compare with. It is suggested hence, for future studies, to use a different scale for sexual and physical abuse than the one used in this study, to be able to either test the intensity of the abuse or the perception of abused adults towards the abuse, to be able to study moderation more precisely, or removing the inclusion of "only people who have experienced abuse in childhood", to be able to compare two groups together and hence test for moderation. In addition, the RFQ is regularly used to study the concept of mentalizing. However, findings indicate that the RFQ is a unidimensional measure that reflects hypomentalizing pertaining to the self but is also conflated with content related to emotional lability and impulsivity. Thus, researchers and mental health professionals alike

should be rather cautious in using the RFQ for theory testing and individual assessment (Müller et al, 2021).

Because there is so much stigma associated with having been abused as a child, especially sexually, not all survivors are willing to participate. Another limitation is the small sample size recruited which hugely reduced the statistical power of the study, thus the generalizability is an issue, as this was not a representative sample. Furthermore, participants willingness to carefully read the instructions of each scale cannot be controlled, and hence both dependent variables (PTSD and PTG) can be linked to any other trauma that participants experienced and not the abuse.

Another study limitation is the use of a single method of data collection, that is, self-report questionnaires, and a single source of data, that is, the participants themselves. Future research might consider incorporating additional sources of data and additional instruments, possibly qualitative ones. Social desirability may have influenced participants' scores given that the assessments were self-report. In addition, the correlational research design means that causation may not be interpreted from the results. Furthermore, the researcher could not control for environmental factors, as participants were given access to the online assessment to complete on their own time, not in the presence of the researcher.

Another constraint is self-selection (Dillman, Smyth, & Christian, 2009). CSPA survivors with high levels of avoidant attachment, no disclosure of their abuse, or no personal growth may not have chosen to participate, as opposed to those with a secure attachment style or personal growth. There might, therefore, be some minor variation in the data that was gathered.

The relationship between these findings and the experience of growing after extra-familial sexual assault, physical abuse, emotional abuse, or neglect is also unknown, and future research has a lot of room to explore the variations and parallels in PTG experiences in various populations. Finally, even though individuals claimed to have grown, there were no validated PTG measurements for CSPA survivors at the time this study was undertaken, making it impossible to determine PTG objectively.

### **Clinical and Scientific Implications**

Given the findings of this study, the described results provide an opportunity for therapists to lean on the protective factors studied in trauma-focused approaches to be able to consider the patient's attachment style and reflective functioning while formulating a treatment plan. Since this study also addressed how attachment might affect posttraumatic stress or growth after abuse, it brings it to caregiver's attention to bolster it in developing children. This would aid parents in recognizing the possibility of secure attachment, particularly after a childhood trauma (sexual/physical abuse). The significance of reflective functioning and PTG, particularly considering the CSPA frequencies, would contribute to raise awareness on the importance of establishing training programs in schools for children to improve such abilities especially in abused kids.

Given the complex pathways linking childhood abuse with PTS and PTG, it is difficult to conclude whether childhood abuse is a direct and sufficient cause of the development of PTS, and how is PTG identified in many cases. This study has studied important variables that affected this association. The significance of this study is to highlight some variables that work

as protective factors after the incidence of abuse during childhood, which can reduce the presence and/or aggravation of PTS and enhance PTG. Having this study in Lebanon is crucial in helping NGOs get an approximation of incidents of abuse, frequency, intensity, and timing, thus target interventions that help stop or reduce the occurrence of the incidence. It also helps researchers rely on some interventions that help reduce the effect of the incidence of CSPA and thus promote growth.

Because CSPA is a persistent issue that frequently leads to severe psychological problems (Berliner & Elliott, 2002; Paolucci et al., 2001; Tyler, 2002), it is necessary to support survivors in both their recovery from the experience and their post-traumatic growth (PTG). Considering that attachment types affect how CSPA survivors recover after abuse and considering that these clients have the potential to undergo PTG, our findings reinforce the necessity for counselors to evaluate their clients' attachment styles. Exploring attachment types may help clients become more self-aware of how they are adjusting and coping following CSPA, which will help them better understand how attachment styles may be connected to inefficient coping behaviors that affect their psychological suffering. As such, the counselor will be better equipped to help the client reconstruct their world view, repair their attachment system if necessary, and enhance social support that may lead to an increased attachment security; thus improving the client's chance of achieving PTG.

Counselors may suggest counseling support groups for CSPA survivors to strengthen their social support network for clients with an insecure attachment style to examine their efficacy in terms of coping. Counselors can also assist clients in rebuilding their preconceptions about themselves, others, and the wider world by providing a safe foundation for the therapeutic interaction. PTG results from the process of rebuilding one's assumptive world, which causes

people to reevaluate many aspects of their lives and may notice growth in areas like personal strength, interpersonal relationships, appreciation of life, spirituality, and new opportunities, which is also linked to reflective functioning (Tedeschi & Calhoun, 2004).

An awareness of where a client is in the healing process will help counselors better understand what the client needs (e.g., to manage distress, engage in reflective rumative thinking, or find meaning) to enhance the client's chances of achieving PTG. As such, counselor educators should encourage future counselors to understand the role of attachment and reflective functioning in clients' lives, and be prepared to address attachment style among survivors of CSPA to help clients experience more positive adjustment following such traumatic events.

### **Future Directions**

Researchers in the future should think about enhancing external validity by making an attempt to boost response rates and the generalizability of the findings . Random sampling should also be taken into account for generalizability. Additionally, the inclusion of a social desirability metric may make it easier to spot a potential Hawthorne effect. Given the limited number of studies examining the links between CSPA, attachment style, reflective functioning, PTS, and PTG together, further study is required to examine these interactions.

Future researches would want to think about utilizing additional measures of attachment given that the ECR-S does not explicitly take secure attachment into consideration, despite what Wei et al. (2007) suggested.

Finally, the cross-sectional design of this study does not allow to infer causality. Longitudinal research on PTG is needed in order to fill this gap.

## References

- Allen J. G., Fonagy, P., & Bateman, A.W. (2008). *Mentalizing in clinical practice*. Washington, DC: American Psychiatric Press.
- Allen, J. P. (2008). *Attachment in adolescence*. Handbook of Attachment Theory and Research.
- Aspelmeier, J.E., Elliott, A.N., & Smith, C.H. (2007). Childhood sexual abuse, attachment, and trauma symptoms in college females: the moderating role of attachment. *Child abuse & neglect, 31* 5, 549-66.
- Baron, R. M., & Kenny, D. A. (1986). The moderator-mediator variable distinction in social psychological research: Conceptual, strategic, and statistical considerations. *Journal of Personality and Social Psychology, 51*, 1173–1182.
- Bateman, A. W., & Fonagy, P. E. (2012). *Handbook of mentalizing in mental health practice*. American Psychiatric Publishing.
- Becker, L. E., Sanders, B., & Chinsky, J. M. (1995). Mediation of abusive childhood experiences: depression, dissociation, and negative life outcomes. *The American Journal of Orthopsychiatry, 65*(4), 560–573. <https://doi.org/10.1037/h0079670>
- Berliner, L., & Elliott, D. M. (2002). Sexual abuse of children. In J. E. B. Myers, L. Berliner, J. Briere, C. T. Hendrix, C. Jenny, & T. A. Reid (Eds.), *The APSAC handbook on child maltreatment* (2nd ed., pp. 55–78). Thousand Oaks, CA: Sage.
- Berliner, L., & Elliott, D. M. (2002). Sexual abuse of children. *Oaks, CA: Sage*.
- Borelli, J. L., Brugnera, A., Zarbo, C., Rabboni, M., Bondi, E., Tasca, A.T., & Compare, T. (2018). Attachment comes of age: adolescents' narrative coherence and reflective

functioning predict well-being in emerging adulthood. *Attachment and Human Development*. doi: 10.1080/14616734.2018.1479870.

Bradley, R., Jenei, J., & Westen, D. (2005). Etiology of borderline personality disorder: disentangling the contributions of intercorrelated antecedents. *Journal of Nervous and Mental Disease*, 193(1), 24-31. 10.1097/01.nmd.0000149215.88020.7c.

Brennan, K. A., Clark, C. L., & Shaver, P. R. (1998). Self-Report Measurement of Adult Attachment: An Integrative Overview. In J. A. Simpson, & W. S. Rholes (Eds.), *Attachment Theory and Close Relationships* (pp. 46-76). *New York: Guilford*.

Briere, J. (2006). Dissociative symptoms and trauma exposure - Specificity, affect dysregulation, and posttraumatic stress. *Journal of Nervous and Mental Disease*, 194(2), 78-82.

Collin-Vézina, D., Daigneault, I., & Hébert, M. (2013). Lessons learned from child sexual abuse research: prevalence, outcomes, and preventive strategies. *Child and Adolescent Psychiatry and Mental Health*, 7(1), 22. <https://doi.org/10.1186/1753-2000-7-22>

Corliss, H. L., Cochran, S. D., & Mays, V. M. (2002). Reports of parental maltreatment during childhood in a United States population-based survey of homosexual, bisexual, and heterosexual adults. *Child abuse & neglect*, 26(11), 1165–1178. [https://doi.org/10.1016/s0145-2134\(02\)00385-x](https://doi.org/10.1016/s0145-2134(02)00385-x)

- Cortés, C. D., Cortés, R. M., & Cantón, J. (2015). Child sexual abuse, attachment style, and depression: The role of the characteristics of abuse. *Journal of Interpersonal Violence* 30(3), 420-436.
- Cryder, C. H., Kilmer, R. P., Tedeschi, R. G., & Calhoun, L. G. (2006). An exploratory study of posttraumatic growth in children following a natural disaster. *The American Journal of Orthopsychiatry*, 76(1), 65–69. <https://doi.org/10.1037/0002-9432.76.1.65>
- Dillman, D. A., Smyth, J. D., & Christian, L. M. (2009). *Internet, mail, and mixed-mode surveys: The tailored design method* (3rd ed.). Hoboken, NJ: Wiley.
- Elzy, M. B. (2011). Examining the relationship between childhood sexual abuse and borderline personality disorder: does social support matter? *Journal of Child Sexual Abuse*, 20(3), 284-304. 10.1080/10538712.2011.573526
- Ensink, K., Bégin, M., Normandin, L., & Fonagy, P. (2016). Maternal and child reflective functioning in the context of child sexual abuse: pathways to depression and externalising difficulties. *European Journal of Psychotraumatology*, 7, 30611. <https://doi.org/10.3402/ejpt.v7.30611>
- Ensink, K., Fonagy, P., Normandin, L., Rozenberg, A., Marquez, C., Godbout, N., & Borelli, J. L. (2021). Post-traumatic Stress Disorder in Sexually Abused Children: Secure Attachment as a Protective Factor. *Frontiers in Psychology*, 12, 646680. <https://doi.org/10.3389/fpsyg.2021.646680>
- Ensink, K., Normandin, L., Target, M., Fonagy, P., Sabourin, S., & Berthelot, N. (2015). Mentalization In children and mothers in the context of trauma: An initial study of the

- validity of the child reflective functioning scale. *British Journal Of Developmental Psychology*, 33, 203–217. doi: 10.1111/bjdp.12074
- Everson, M. D., Hunter, W. M., Runyon, D. K., Edelsohn, G. A., & Coulter, M. L. (1989). Maternal support following disclosure of incest. *American Journal of Orthopsychiatry*, 59(2), 197-207.
- Farber, E. A., & Egeland, B. (1987). Invulnerability among abused and neglected children. In E. J. Anthony, B. J. Cohler, E. J. Anthony, B. J. Cohler (Eds.) , *The invulnerable child* (pp. 253-288). New York: Guilford Press.
- Finkelhor, D., & Browne, A. (2001). The traumatic impact of child sexual abuse: a conceptualization. *American Journal of Orthopsychiatry*, 55(4), 530-541. <https://doi.org/10.1111/j.1939-0025.1985.tb02703.x>
- Fonagy, P., & Campbell, C. (2016). Attachment theory and mentalization. *The Routledge Handbook of Psychoanalysis in the Social Sciences and Humanities*, 115–131
- Fonagy, P., & Luyten, P. (2009). A developmental, mentalization-based approach to the understanding and treatment of borderline personality disorder. *Development and psychopathology*, 21(4), 1355–1381. <https://doi.org/10.1017/S0954579409990198>
- Fonagy, P., & Target, M. (1998). Mentalization: A protective factor and a focus of psychotherapy. *Psychoanalytic Dialogues*, 8(1), 28–95.  
doi: [10.1080/10481889809539235](https://doi.org/10.1080/10481889809539235)
- Fonagy, P., Gergely, G., Jurist, E. L., & Target, M. (2002). *Affect regulation, mentalization, and the development of the self*. New York, NY: Other Press.

- Fonagy, P., Luyten, P., Moulton-Perkins, A., Lee, Y. W., Warren, F., et al. (2016). Development and validation of a self-report measure of mentalizing: The reflective functioning questionnaire. *PLoS One*, *11*(7). <https://doi.org/10.1371/journal.pone.0158678>
- Frazier, P., Conlon, A., & Glaser, T. (2001). Positive and negative life changes following sexual assault. *Journal of consulting and clinical psychology*, *69*(6), 1048–1055.  
<https://doi.org/10.1037//0022-006x.69.6.1048>
- Garrido-Hernansaiz, H., Rodríguez-Rey, R., Collazo-Castiñeira, P., & Collado, S. (2022). The posttraumatic growth inventory-short form (PTGI-SF): A psychometric study of the spanish population during the COVID-19 pandemic. *Current Psychology (New Brunswick, N.J.)*, *1–10*. Advance Online Publication. <https://doi.org/10.1007/s12144-021-02645-z>
- Hayden, M. C., Müllauer, P. K., Gaugeler, R., Senft, B., & Andreas, S. (2018). Improvements in mentalization predict improvements in interpersonal distress in patients with mental disorders. *Journal of clinical psychology*, *74*(12), 2276–2286.  
<https://doi.org/10.1002/jclp.22673>
- Herman, J., Russell, D., & Trocki, K. (1986). Long-term effects of incestuous abuse in childhood. *The American Journal of Psychiatry*, *143*(10), 1293-1296.
- Hinnen, C., Sanderman, R., & Sprangers, M. A. G. (2009). Adult attachment as mediator between recollections of childhood and satisfaction with life. *Clinical Psychology Psychotherapy*, *16*(5), 10-21. doi: 10.1002/cpp.600

- Ho, S. M., Chan, C. L., & Ho, R. T. (2004). Posttraumatic growth in Chinese cancer survivors. *Psycho-oncology*, *13*(6), 377–389. <https://doi.org/10.1002/pon.758>
- Janoff-Bulman, R., & McPherson Frantz, C. (1997). The impact of trauma on meaning: From meaningless world to meaningful life. In M. J. Power, C. R. Brewin, M. J. Power, & C. R. Brewin (Eds.), *The transformation of meaning in psychological therapies: Integrating theory and practice* (pp. 91-106). Hoboken, NJ: John Wiley & Sons.
- Jiang, X., Huebner, E. S., & Hills, K. J. (2013). Parent attachment and early adolescents' life satisfaction: The mediating effect of hope. *Psychology in the Schools*, *50*, 340-352. doi: 10.1002/pits.21680
- Joseph, S. (2011). *What doesn't kill us: The new psychology of posttraumatic growth*. New York: Basic Books
- Joseph, S., Linley, P.A., (2005). Positive adjustment to threatening events: an organismic valuing theory of growth through adversity. *Sage Journals*, *9*(3). <https://doi.org/10.1037/1089-2680.9.3.262>.
- Katerndahl, D. A., Burge, S. K., Kellogg, N. D., & Parra, J. M. (2005). Differences in childhood sexual abuse experience between adult Hispanic and Anglo women in a primary care setting. *Journal of child sexual abuse*, *14*(2), 85–95. [https://doi.org/10.1300/J070v14n02\\_05](https://doi.org/10.1300/J070v14n02_05)
- Kendall-Tackett, K. A., Williams, L. M., & Finkelhor, D. (1993). Impact of sexual abuse on children: a review and synthesis of recent empirical studies. *Psychological Bulletin*, *113*(1), 164–180. <https://doi.org/10.1037/0033-2909.113.1.164>

- Kooiman, C. G., Ouwehand, A. W., & ter Kuile, M. M. (2002). The Sexual and Physical Abuse Questionnaire (SPAQ). A screening instrument for adults to assess past and current experiences of abuse. *Child Abuse & Neglect*, 26(9), 939–953.  
[https://doi.org/10.1016/s0145-2134\(02\)00363-0](https://doi.org/10.1016/s0145-2134(02)00363-0)
- Koverola, C., Proulx, J., Battle, P., & Hanna, C. (1996). Family functioning as predictors of distress in revictimized sexual abuse survivors. *Journal of Interpersonal Violence*, 11(2), 263-280. doi:10.1177/088626096011002009
- Lev-wiesel, R., Amir, M., & Besser, A. (2004). Posttraumatic growth among female survivors of childhood sexual abuse in relation to the perpetrator identity. *Journal of Loss and Trauma*, 10(1), 7-17, doi: [10.1080/15325020490890606](https://doi.org/10.1080/15325020490890606)
- Levenkron, A., & Levenkron, S. (2007). *Stolen tomorrows: Understanding and treating women's childhood sexual abuse*. New York: W.W. Norton.
- Luyten, P., Campbell, C., Allison, E., & Fonagy, P. (2020). The mentalizing approach to psychopathology: State of the art and future directions. *Annual Review of Clinical Psychology*, 16, 297–325. <https://doi.org/10.1146/annurev-clinpsy-071919-015355>
- Mancini, A. D., & Bonanno, G. A. (2009). Predictors and parameters of resilience to loss: toward an individual differences model. *Journal of Personality*, 77(6), 1805–1832.  
<https://doi.org/10.1111/j.1467-6494.2009.00601.x>
- McMillen, C., Zuravin, S., & Rideout, G. (1995). Perceived benefit from child sexual abuse. *Journal of Consulting and Clinical Psychology*, 63(6), 1037–1043. <https://doi.org/10.1037/0022-006X.63.6.1037>

- Meichenbaum, D. (2014). Ways to bolster resilience in traumatized clients: Implications for psychotherapists. *Journal of Constructivist Psychology*, 27(4), 329-336.
- Mikulincer, M., & Florian, V. (2004). Attachment style and affect regulation: Implications for coping with stress and mental health. *Applied Social Psychology*, 28(4), <https://doi.org/10.1002/9780470998557.ch21>
- Nelson, K. (2016). The contribution of adult attachment style on the experience of posttraumatic growth among adult survivors of childhood sexual abuse. *Electronic Theses and Dissertations*. 5430. <https://stars.library.ucf.edu/etd/5430>
- Nooner, K. B., Linares, L. O., Batinjane, J., Kramer, R. A., Silva, R., & Cloitre, M. (2012). Factors related to posttraumatic stress disorder in adolescence. *Trauma, Violence & Abuse*, 13(3), 153–166. <https://doi.org/10.1177/1524838012447698>
- Paolucci, E. O., Genuis, M. L., & Violato, C. (2001). A meta- analysis of the published research on the effects of child sexual abuse. *The Journal of Psychology*, 135, 17–36.  
doi:10.1080/00223980109603677
- Pérez-Fuentes, G., Olfson, M., Villegas, L., Morcillo, C., Wang, S., & Blanco, C. (2013). Prevalence and correlates of child sexual abuse: a national study. *Comprehensive psychiatry*, 54(1), 16-27. <https://doi.org/10.1016/j.comppsy.2012.05.010>
- Richard, R. G., & Calhoun, L. G. (2004). Posttraumatic growth: conceptual foundations and empirical evidence. *Psychological Inquiry*, 15(1), 1-18,  
doi: [10.1207/s15327965pli1501\\_01](https://doi.org/10.1207/s15327965pli1501_01)

Sascha Müller, Leon P. Wendt, Carsten Spitzer, Oliver Masuhr, Sarah N. Back & Johannes

Zimmermann (2022) A Critical Evaluation of the Reflective Functioning Questionnaire (RFQ), *Journal of Personality Assessment*, 104:5, 613-627, DOI: [10.1080/00223891.2021.1981346](https://doi.org/10.1080/00223891.2021.1981346)

Shaw, B. A., & Krause, N. (2002). Exposure to physical violence during childhood, aging, and health. *Journal of aging and health*, 14(4), 467–494.

<https://doi.org/10.1177/089826402237179>

Sheridan, G., Carr, A., (2020). Survivors' lived experiences of posttraumatic growth after institutional childhood abuse: An interpretative phenomenological analysis. *Child Abuse and Neglect*. <https://doi.org/10.1016/j.chiabu.2020.104430>

Taku, K., Calhoun, L.G., Tedeschi, R.G., Gil-Rivas, V., Kilmer, R.P., Cann, A. (2007).

Examining posttraumatic growth among Japanese university students. *Anxiety, Stress & Coping*, 20(4), 353–367. doi: 10.1080/10615800701295007.

Tedeschi, R. G., & Calhoun, L. G. (2004). Posttraumatic growth: Conceptual foundations and empirical evidence. *Psychological Inquiry*, 15, 1–18. doi:10.1207/s15327965pli1501\_01

Thairovic S., & Bajric, A. (2016). Child-parent attachment styles and borderline personality disorder relationship. *Mediterranean Journal of Clinical Psychology MJCP*, 4(2), 25. 10.6092/2282-1619/2016.4.1277.

- Tyler, K. A. (2002). Social and emotional outcomes of childhood sexual abuse: A review of recent research. *Aggression and Violent Behavior, 7*, 567–589. doi:10.1016/S1359-1789(01)00047-7
- Walsh, K., Fortier, M. A., & Dilillo, D. (2010). Adult Coping with Childhood Sexual Abuse: A Theoretical and Empirical Review. *Aggression and violent behavior, 15*(1), 1–13.  
<https://doi.org/10.1016/j.avb.2009.06.009>
- Wei, M., Russell, D. W., Mallinckrodt, B., & Vogel, D. L. (2007). The Experiences in Close Relationship Scale (ECR)-short form: Reliability, validity, and factor structure. *Journal of Personality Assessment, 88*(2), 187-204. <https://doi.org/10.1080/00223890701268041>
- Weiss, D. S., & Marmar, C. R.. (1996). The Impact of Event Scale-Revised. In J. Wilson, & T. M. Keane (Eds.), *Assessing psychological trauma and PTSD* (pp. 399-411). New York: Guilford.
- Wong, M. L., Cavanaugh, C. E., Macleamy, J. B., Sojourner-Nelson, A., & Koopman, C. (2009). Posttraumatic growth and adverse long-term effects of parental cancer in children. *Families, Systems & Health : The Journal of Collaborative Family Healthcare, 27*(1), 53–63. <https://doi.org/10.1037/a0014771>
- Woodward, C., & Joseph, S. (2003). Positive change processes and post-traumatic growth in people who have experienced childhood abuse: understanding vehicles of change. *Psychology and psychotherapy, 76*(3), 267–283.  
<https://doi.org/10.1348/147608303322362497>

- Wright, M. O., Crawford, E., & Sebastian, K. (2007). Positive resolution of childhood sexual abuse experiences: The role of coping, benefit-finding and meaning-making. *Journal of Family Violence*, 22(7), 597-608. doi:10.1007/s10896-007-9111-1
- Wright, M. O., Fopma-Loy, J., & Fischer, S. (2005). Multidimensional assessment of resilience in mothers who are child sexual abuse survivors. *Child Abuse & Neglect*, 29(10), 1173-1193. doi: 10.1016/j.chiabu.2005.04.004
- Wurtele, S. K. (2009). Child sexual abuse prevention: Preventing sexual abuse of children in the twenty-first century: Preparing for challenges and opportunities. *Journal of Child Sexual Abuse: Research, Treatment, & Program Innovations for Victims, Survivors, & Offenders*, 18(1), 1–18. <https://doi.org/10.1080/10538710802584650>
- Zoellner, T., & Maercker, A. (2006). Posttraumatic growth in clinical psychology - a critical review and introduction of a two component model. *Clinical Psychology Review*, 26(5), 626–653. <https://doi.org/10.1016/j.cpr.2006.01.008>
- Zuromski, K. L., Ustun, B., Hwang, I., Keane, T. M., Marx, B. P., Stein, M. B., Ursano, R. J., Kessler, R. C. (2019). Developing an optimal short-form of the PTSD Checklist for DSM-5 (PCL-5). *Anxiety and Depression Association of America*. <https://doi.org/10.1002/da.22942>

## **Appendix A: Participant Information Letter**

Dear Ms./Mr.

I am Abeer Jammoul, a student at Haigazian University from the Department of Social and Behavioral Sciences. I am currently carrying out a research study titled Attachment and Reflective Functioning Moderating the Relationship Between Child Sexual and Physical Abuse, Post-traumatic Stress, and Post-traumatic Growth advised by Dr Myriam El Khoury Malhame.

You are being asked to take part in this study since you are a Lebanese adult (18 years and above) residing inside Lebanon and have experienced either physical or sexual abuse/harassment or both in your childhood.

Kindly read the below information to decide whether you would like to participate in this research study.

### **Purpose of the Research Project**

The purpose of this study is to investigate the effect of child sexual and physical abuse on post-traumatic stress disorder (PTSD) symptomatology and post-traumatic growth (PTG). It will also predict what is it that is affecting the link between the latter variables, and thus explore and predict some protective factors that might lower the chance that abused individuals get stuck at the level of PTSD and increase the likelihood of PTG, such as secure attachment and the ability to mentalize (reflective functioning). This will lead to the addition of factors to consider in the treatment of PTSD and enhancement of PTG. Also, this study will contribute towards the fulfillment of my academic study requirements at Haigazian University.

**What will I be asked to do?**

If you choose to participate in this research study, you will be asked to fill in a questionnaire.

Your participation will involve completing a survey that entails statements that you will have to rate based on agreement, a demographic form that will be used as descriptive data for approximately 25 minutes.

Participation in this project is voluntary.

You are free to withdraw anytime without having to give any reason for your withdrawal.

You are asked to participate if you are Lebanese, 18 years or older, residing in Lebanon, and have experienced an incident of sexual and/or physical abuse during childhood.

**What are my rights?**

Participation in this study is completely voluntary, anonymous, and confidential. Your name or any other identifying information will not be asked.

Data you provide along with data from all participants in the present research will be stored in aggregate in a password protected folder of the principal investigator Abeer Jammoul. The data will be analyzed and reported in aggregate. Only the principal investigators of this study will have access to the compiled data which will be stored for a period of 10 years post data. During this time, you have the right to inspect the data.

You have the right to withdraw your consent or discontinue participation at any time for any reason. Your decision to refuse participation or withdraw will not involve any penalty or loss of benefits to which you are entitled. Discontinuing participation in no way affects your relationship with Haigazian University.

This research study has been reviewed and has received clearance from the SBS Ethics Committee at Haigazian University. If you have any further concerns about your rights as a research participant, please, do not hesitate to contact the Ethics Committee at [SBS.Ethics@haigazian.edu.lb](mailto:SBS.Ethics@haigazian.edu.lb)

### **What are the risks and benefits of participation?**

Participation in this study does not involve any physical risk or emotional risk to you beyond the risks of daily life. You will be filling a questionnaire that might take around 25 minutes from their time. You might feel emotionally drained while filling the survey. Moreover, some questions might trigger some emotional distress. No physical burden is anticipated. You have the right to withdraw from the study at any time.

The national lifeline 1564 will be provided in case of emotional distress. It operates 24/7 and is ready to handle any case of emotional distress and refer the caller to specific services if needed. This is like a counseling service operated by trained individuals who can support callers in reducing their emotional distress by listening to them over the phone. If callers feel that they need a long-term service, they can be given referrals to needed services. If filling the questionnaire brought up any negative memories, you can call the National Lifeline 1564. You can also missed-call them from a mobile phone number, and they can call you back.

Whilst there are no immediate benefits from participating in the study, the research aims to support others who have faced adverse events and get a better understanding of some protective factors that enhance post-traumatic growth after the occurrence of child sexual and physical abuse, so the sense that you are contributing to the scientific community may be pleasing.

### **Contact information**

If you have any questions or concerns about the research, you may contact:

Abeer Jammoul, MA student in Clinical Psychology, Haigazian University

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## Appendix B: Participant Consent

### Attachment and Reflective Functioning Moderating the Relationship Between Child Sexual and Physical Abuse, Post-traumatic Stress, and Post-traumatic Growth

Please read the following statements and place a check mark in the boxes adjacent to them.

- I have volunteered to participate in this research project conducted for purposes of study. My participation is voluntary and does not involve payment of any kind.
- I agree to participate in this research project conducted for purposes of study. My decision is voluntary and does not involve payment of any kind.
- I know that I can choose to withdraw from participation any time without any penalties or consequences whatsoever. I also hold the right to decline to respond to any question(s) that I may feel uncomfortable with.
- My participation involves an answering a questionnaire for approximately 15 mins.
- I have been assured that the researcher will maintain my identity confidential.
- I have been assured that the information from this survey will be used for the purpose of academic study only.
- I have received the assurance that this research study has been duly reviewed and approved by the Haigazian University ethics committee.
- I agree that the data gathered be kept in a secure location under the care of the study investigators for a period of 10 years.
- I have been assured that I can access my data (if identified) at any time.
- I have read, listened and fully understand the explanation given to me. All my questions have been satisfactorily answered.

- I, therefore, choose to voluntarily participate in this research study.
- I have received a copy of this consent form co-signed by the researcher.

Participant consent

Date: \_\_\_\_\_

\_\_\_\_\_

Name: \_\_\_\_\_

\_\_\_\_\_

Signature: \_\_\_\_\_

\_\_\_\_\_

Investigator

Date:

Name:

Signature:

## Appendix C: Ethics Approval Letter

### HAIGAZIAN UNIVERSITY

Faculty of Social and Behavioral Sciences

SBS Research Ethics Committee

Dear Ms. Jammoul,

The SBS Research Ethics Committee reviewed the following protocol:

Type of review	Initial, Expedited
Study title	Attachment and Reflective Functioning Moderating the Relationship Between Child Sexual and Physical Abuse, Post-traumatic Stress, and Post-traumatic Growth
Study ID	---
Principal investigator(s): <i>Name, title, institution, contact information(email and phone number)</i>	Abeer Jammoul, MA student in Clinical Psychology Haigazian University ajammoul@students.haigazian.edu.lb
Advisor	Dr. Myriam El Khoury Malhame Assistant Professor at the Department of Social and Education Sciences

	<p>Lebanese American University</p> <p>Myriam.malhame@lau.edu.lb</p> <p>Hanine.hout@haigazian.edu.lb</p>
Committee members	<p>- Dr. Pia Tohme</p> <p>Assistant Professor at the Department of Social and Education Sciences Lebanese American University</p> <p>pia.tohme@lau.edu.lb</p> <p>- Dr. Hanine Hout</p> <p>Chair, SBS Faculty</p> <p>Haigazian University</p> <p>Hanine.hout@haigazian.edu.lb</p>

**Decision:**

The SBS Research Ethics Committee approves the protocols the student intends to follow for administering her tools. The student is therefore granted the IRB clearance for her thesis project.

However, should the student, with her Advisor's consent, effectuate major changes to her initial proposal as presently approved by the Committee, namely in the original study design and the tools she will be using, then all such changes must be promptly and duly communicated to the Committee for re-approval.

Best regards

**SBS Research Ethics Committee Haigazian University**  
**January 27, 2023.**

## Appendix D: Sexual and Physical Abuse Questionnaire (SPAQ)

This is a questionnaire about certain events that may have occurred during your childhood and later years.

The questions relate to negative sexual experiences and experiences of being beaten or physical abuse.

The questions cover subjects which could be experienced as difficult. Nevertheless, we would like to ask you to answer these questions as honestly as possible. Your answers will be treated with strict confidentiality.

Read the questions through carefully. If you are unsure of the answer, fill in the answer which you feel is most applicable to you.

1. Has anyone ever touched your sex organs in a sexual manner and against your will?
  - No
  - Yes: If yes, how old were you when it first happened?
    - a. Less than 6 years old
    - b. 6 years old or older, but less than 12 years old
    - c. 12 years old, but less than 16 years old
    - d. 16 years old or older
  
2. Has anyone ever forced you to touch his or her sex organs in a sexual manner and against your will?
  - No
  - Yes: If yes, how old were you when it first happened?
    - a. Less than 6 years old
    - b. 6 years old or older, but less than 12 years old
    - c. 12 years old, but less than 16 years old
    - d. 16 years old or older
  
3. Has anyone ever tried to force you to have sexual intercourse against your will?
  - No
  - Yes: If yes, how old were you when it first happened?
    - a. Less than 6 years old
    - b. 6 years old or older, but less than 12 years old
    - c. 12 years old, but less than 16 years old
    - d. 16 years old or older
  
4. Have you ever had another unwanted or threatening experience that is not named above?
  - No

- Yes: If yes, you may or may not give a short description of the experience  
 .....

how old were you when it first happened?

- a. Less than 6 years old
- b. 6 years old or older, but less than 12 years old
- c. 12 years old, but less than 16 years old
- d. 16 years old or older

5. If you have had one of the above experiences, have you ever discussed it with anyone?  
 (you can click more than one answer)

- No
- Yes: If yes, with whom?
  - a. With a relative
  - b. With boyfriend(s) or girlfriend(s)
  - c. With non-medical workers (for example: teacher, church elder, minister, priest...)
  - d. With medical workers (for example: GP, specialist, social worker, psychologist, psychiatrist)

6. Have you ever intentionally been treated by someone in such a way that you suffered physical injury (for example beaten, stamped on, kicked or pushed)?  
 (Physical injury means, for example: bruises, welts, broken nose, broken teeth, broken bones, cuts, burns and loss of consciousness).

- No
- Yes: If yes, how old were you when it first happened?
  - a. Less than 6 years old
  - b. 6 years old or older, but less than 12 years old
  - c. 12 years old, but less than 16 years old
  - d. 16 years old or older

7. Have you ever experienced something that is not listed above and which you have perceived as violent?

- No
- Yes: If yes, you may or may not describe it briefly

.....

how old were you when it first happened?

- a. Less than 6 years old
- b. 6 years old or older, but less than 12 years old
- c. 12 years old, but less than 16 years old
- d. 16 years old or older

8. If you have ever experienced one of these things (question 6 and 7), have you ever discussed it with anyone? (you can tick more than one answer here).

- No
- Yes: If yes, with whom?
  - a. With a relative
  - b. With boyfriend(s) or girlfriend(s)
  - c. With non-medical workers (for example: teacher, church elder, minister, priest...)
  - d. With medical workers (for example: GP, specialist, social worker, psychologist, psychiatrist)

9. If you have had one of the above experiences, would you like to talk to someone about it?

- No
- Yes, with .....
- Don't know
- Not applicable

### Appendix E: Posttraumatic Stress Disorder Checklist- Short Version (PCL-5)

Below is a list of problems that people sometimes have in response to a very stressful experience. Please read each problem carefully and then choose one of the numbers below to indicate how much you have been bothered in the past month **by the abuse you have mentioned previously**.

0 = Not at all

1 = A little bit

2 = Moderately

3 = Quite a bit

4 = Extremely

1. Suddenly feeling or acting as if the stressful experience were actually happening again (as if you were actually back there reliving it).

0	1	2	3	4
Not at all	A little bit	Moderately	Quite a bit	Extremely

2. Avoiding external reminders of the stressful experience (for example, people, places, conversations, activities, objects, or situations).

0	1	2	3	4
Not at all	A little bit	Moderately	Quite a bit	Extremely

3. Feeling distant or cut off from other people

0	1	2	3	4
Not at all	A little bit	Moderately	Quite a bit	Extremely

4. Irritable behavior, angry outbursts, or acting aggressively

0	1	2	3	4
Not at all	A little bit	Moderately	Quite a bit	Extremely

## Appendix F: Post-Traumatic Growth Inventory - Short Version

The PTGI was initially developed to measure favorable outcomes of a stressful life event. But with time, it became more popular as a test that provides direction to the participants about their future actions and suggests scope for self- improvement.

Choose a number from 0 to 5 based on your experience of the statement mentioned, as an outcome of the abuse you experienced and stated previously.

Participants indicate their scores on a 6-point scale where:

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

I have a greater appreciation for the value of my own life	0	1	2	3	4	5
I am able to do better things with my life.	0	1	2	3	4	5
I have a better understanding of spiritual matters.	0	1	2	3	4	5
I have a greater sense of closeness with others.	0	1	2	3	4	5
I know better than I can handle difficulties.	0	1	2	3	4	5
I have a stronger religious faith.	0	1	2	3	4	5
I discovered that I'm stronger than I thought I was.	0	1	2	3	4	5
I learned a great deal about how wonderful people are.	0	1	2	3	4	5

### Appendix G: Experiences in Close Relationship Scale-Short Form (ECR-S)

Instruction: The following statements concern how you feel in romantic relationships. We are interested in how you generally experience relationships, not just in what is happening in a current relationship. Respond to each statement by indicating how much you agree or disagree with it. Mark your answer using the following rating scale:

1	2	3	4	5	6	7
Strongly disagree	Disagree	Slightly disagree	Neutral	Slight agree	Agree	Strongly agree

1. It helps to turn to my romantic partner in times of need.	1	2	3	4	5	6	7
2. I need a lot of reassurance that I am loved by my partner.	1	2	3	4	5	6	7
3. I want to get close to my partner, but I keep pulling back.	1	2	3	4	5	6	7
4. I find that my partner(s) don't want to get as close as I would like.	1	2	3	4	5	6	7
5. I turn to my partner for many things, including comfort and reassurance.	1	2	3	4	5	6	7
6. My desire to be very close sometimes scares people away.	1	2	3	4	5	6	7
7. I try to avoid getting too close to my partner.	1	2	3	4	5	6	7
8. I do not often worry about being abandoned.	1	2	3	4	5	6	7
9. I usually discuss my problems and concerns with my partner.	1	2	3	4	5	6	7
10. I get frustrated if romantic partners are not available when I need them.	1	2	3	4	5	6	7
11. I am nervous when partners get too close to me.	1	2	3	4	5	6	7
12. I worry that romantic partners won't care about me as much as I care about them.	1	2	3	4	5	6	7

## Appendix H: The Reflective Functioning Questionnaire

Please work through the next 8 statements. For each statement, choose a number between 1 and 7 to say how much you disagree or agree with the statement, and write the number beside the statement. Do not think too much about it – your initial responses are usually the best. Use the following scale from 1 to 7:

Strongly disagree	1	2	3	4	5	6	7	Strongly agree
-------------------	---	---	---	---	---	---	---	----------------

1. People's thoughts are a mystery to me	
2. I always know what I feel	
3. I don't always know why I do what I do	
4. When I get angry I say things without really knowing why I am saying them	
5. Strong feelings often cloud my thinking	
6. When I get angry I say things that I later regret	
7. If I feel insecure, I can behave in ways that put others' backs up	
8. Sometimes I do things without really knowing why	

## Appendix I: Arabic Version of Sexual and Physical Abuse Questionnaire

تتعلق الأسئلة بالتجارب الجنسية السلبية وتجارب التعرض للضرب أو الإيذاء الجسدي. تغطي الأسئلة موضوعات قد كانت تجربتها صعبة. ومع ذلك، نود أن نطلب منك الإجابة على هذه الأسئلة بأمانة قدر الإمكان. سيتم التعامل مع إجاباتك بسرية تامة. اقرأ الأسئلة بعناية. إذا لم تكن متأكدًا من الإجابة، فقم بملء الإجابة التي تشعر أنها الأنسب لك.

هل سبق لأي شخص أن لمس أعضائك الجنسية بطريقة جنسية وضد إرادتك؟ 1.

لا

نعم: إذا كانت الإجابة بنعم ، كم كان عمرك عندما حدث ذلك لأول مرة؟

أ. أقل من 6 سنوات

ب. 6 سنوات أو أكبر ولكن أقل من 12 سنة

ج. 12 سنة ولكن أقل من 16 سنة

د. 16 سنة أو أكبر

هل سبق أن أجبرك أي شخص على لمس أعضائه الجنسية بطريقة جنسية وضد إرادتك؟ 2.

لا

نعم: إذا كانت الإجابة بنعم ، كم كان عمرك عندما حدث ذلك لأول مرة؟

أ. أقل من 6 سنوات

ب. 6 سنوات أو أكبر ولكن أقل من 12 سنة

ج. 12 سنة ولكن أقل من 16 سنة

د. 16 سنة أو أكبر

هل حاول أحد من قبل إجبارك على القيام بعلاقة جنسية ضد إرادتك؟ 3.

لا

نعم: إذا كانت الإجابة بنعم ، كم كان عمرك عندما حدث ذلك لأول مرة؟

أ. أقل من 6 سنوات

ب. 6 سنوات أو أكبر ولكن أقل من 12 سنة

ج. 12 سنة ولكن أقل من 16 سنة

د. 16 سنة أو أكبر

هل مررت بتجربة أخرى محرجة وغير مرغوب بها لم يتم ذكرها أعلاه؟ 4.

لا

نعم: إذا كانت الإجابة بنعم ، فهل تستطيع إذا أردت إعطاء وصف موجز لهذه التجربة

كم كان عمرك عندما حدث ذلك لأول مرة؟

أ. أقل من 6 سنوات

ب. 6 سنوات أو أكبر ولكن أقل من 12 سنة

ج. 12 سنة ولكن أقل من 16 سنة

د. 16 سنة أو أكبر

إذا كانت لديك إحدى التجارب المذكورة أعلاه ، فهل ناقشتها مع أي شخص من قبل؟ (يمكنك النقر على أكثر من إجابة 5. واحدة)

لا

نعم: إذا كان الجواب نعم ، مع من؟

أ. مع قريب

ب. مع شريك أو شريكة

ج. مع العاملين غير الطبيين (على سبيل المثال: المعلم ، شيخ الكنيسة ، القس ، الكاهن

د. مع العاملين في المجال الطبي (على سبيل المثال: طبيب عام ، أخصائي ، أخصائي اجتماعي ، معالج نفسي ، طبيب نفسي

هل سبق لك أن عولمت من قبل شخص ما بطريقة عانيت فيها من إصابة جسدية (على سبيل المثال الضرب أو الدوس أو 6. الركل أو الدفع)؟

سبل الإصابة الجسدية ، على سبيل المثال: كدمات ، كدمات ، أنف مكسور ، أسنان مكسورة ، كسور في العظام ، جروح ، (حروق وفقدان الوعي).

لا

نعم: إذا كانت الإجابة بنعم ، كم كان عمرك عندما حدث ذلك لأول مرة؟

أ. أقل من 6 سنوات

ب. 6 سنوات أو أكبر ولكن أقل من 12 سنة

ج. 12 سنة ولكن أقل من 16 سنة

د. 16 سنة أو أكبر

هل سبق لك أن واجهت شيئاً غير مذكور أعلاه وتعتقد أنه عنيف؟ 7.

لا

نعم: إذا كانت الإجابة بنعم ، فهل يمكنك وصفها بإيجاز؟

كم كان عمرك عندما حدث ذلك لأول مرة؟

أ. أقل من 6 سنوات

ب. 6 سنوات أو أكبر ولكن أقل من 12 سنة

ج. 12 سنة ولكن أقل من 16 سنة

د. 16 سنة أو أكبر

إذا كنت قد مررت بأحد هذه الأشياء (السؤال 6 و 7) ، فهل سبق لك أن ناقشته مع أي شخص؟ (يمكنك تحديد أكثر من 8. (إجابة واحدة هنا).

لا

نعم: إذا كان الجواب نعم ، مع من؟

أ. مع قريب

ب. مع شريك أو شريكة

(... ج. مع العاملين غير الطبيين (على سبيل المثال: المعلم ، شيخ الكنيسة ، القس ، الكاهن

(د. مع العاملين في المجال الطبي (على سبيل المثال: طبيب عام ، أخصائي ، أخصائي اجتماعي ، معالج نفسي ، طبيب نفسي

إذا كانت لديك إحدى التجارب المذكورة أعلاه ، هل ترغب في التحدث إلى شخص ما عنها؟ 9.

لا

نعم ، مع  .....

لا أعرف

لا ينطبق

## Appendix J: Arabic Version of Posttraumatic Stress Disorder Checklist- Short Version (PCL-5)

فيما يلي قائمة بالمشكلات التي يواجهها الأشخاص أحياناً استجابة لتجربة مرهقة للغاية. يرجى قراءة كل مشكلة بعناية ثم وضع دائرة حول أحد الأرقام الموجودة على اليمين للإشارة إلى مدى إزعاجك في الشهر الماضي من الإساءة التي ذكرتها سابقاً.

كثيرا جدا	الى حد كبير	متوسط	قليلا	اطلاقا	
4	3	2	1	0	الشعور الفجائي أو التصرف حول التجربة الأليمة بأن ما حدث سوف يحدث مرة أخرى (كأنك تتعايش) التجربة؟
4	3	2	1	0	تجنب الأشياء التي تذكرك بالتجربة الأليمة، مثال: (الناس، الاماكن، النقاش، النشاطات، الظروف)؟
4	3	2	1	0	الشعور بالعزلة والبعد عن الآخرين.
4	3	2	1	0	سلوك مضطرب، غضب صارخ، تصرفات عدوانية؟

## Appendix K: Arabic Version of Post-Traumatic Growth Inventory - Short Version

في البداية لقياس النتائج الإيجابية لحدث الحياة المجهدة. ولكن مع مرور الوقت، أصبح أكثر شيوعًا كاختبار يوفر التوجيه PTGI تم تطوير للمشاركين حول أعمالهم المستقبلية ويقترح مجالًا لتحسين الذات .

اختر رقمًا من 0 إلى 5 بناءً على تجربتك مع الجمل المذكورة في البيان ، كنتيجة للإساءة التي تعرضت لها وذكرت سابقًا.

يشير المشاركون إلى درجاتهم على مقياس مكون من 6 نقاط

- يعني - لم أختبر هذا نتيجة لأزمي 0
- يعني - لقد اختبرت هذا التغيير إلى درجة صغيرة جدًا كنتيجة لأزمي 1
- يعني - لقد واجهت هذا التغيير إلى درجة صغيرة كنتيجة لأزمي 2
- يعني - لقد واجهت هذا التغيير إلى درجة معتدلة كنتيجة لأزمي 3
- يعني - لقد واجهت هذا التغيير إلى درجة كبيرة كنتيجة لأزمي 4
- يعني - لقد اختبرت هذا التغيير إلى درجة كبيرة جدًا كنتيجة لأزمي 5

٥	٤	٣	٢	١	٠	لدي تقدير أكبر لقيمة حياتي الخاصة
٥	٤	٣	٢	١	٠	أنا قادر على فعل أشياء أفضل في حياتي
٥	٤	٣	٢	١	٠	لدي فهم أفضل للأمور الروحية
٥	٤	٣	٢	١	٠	لدي شعور أكبر بالتقارب مع الآخرين
٥	٤	٣	٢	١	٠	أعلم بشكل أفضل أنني أستطيع التعامل مع الصعوبات
٥	٤	٣	٢	١	٠	لدي إيمان ديني أقوى
٥	٤	٣	٢	١	٠	اكتشفت أنني أقوى مما كنت أعتقد
٥	٤	٣	٢	١	٠	لقد تعلمت الكثير عن مدى روعة الناس

## Appendix L: Arabic Version of Experiences in Close Relationship Scale-Short Form (ECR-S)

تتعلق المقولات الواردة أدناه بمشاعرك بشكل عام في العلاقات الرومنسية ما يهمننا هنا هو كيف تخوض تجربة العلاقات الرومنسية عامة وليس ما يحدث فقط في علاقة تختبرها الآن فليس من الضروري مثلا أن تكون حاليًا مرتبطًا بأية علاقة لتتمكن من التعليق على هذه المقولات، أجب وفقا لما قد تشعر عامة في اية علاقة رومنسية  
أشر الى مدى موافقتك أو عدم موافقتك على كل من المقولات باختيار الرقم المناسب

لا اوافق ابدا ١	لا اوافق الى حد ما ٢	لا اوافق الى حد بسيط ٣	حيادي ٤	وافق الى حد بسيط ٥	وافق الى حد ما ٦	وافق كليا ٧
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٧	٦	٥	٤	٣	٢	١	اللجوء الى الشريك في اوقات الحاجة يساعدي.
٧	٦	٥	٤	٣	٢	١	أحتاج إلى الكثير من الطمأنينة بأن شريكي يحبني
٧	٦	٥	٤	٣	٢	١	أريد أن أقترّب من شريكي، لكنني أبقى أترجع.
٧	٦	٥	٤	٣	٢	١	اشعر ان الشريك لا ترغب في التقرب مني بقدر ما اودها ان تقوم بذلك
٧	٦	٥	٤	٣	٢	١	الجا إلى شريكي لأشياء كثيرة، بما في ذلك الراحة والطمأنينة
٧	٦	٥	٤	٣	٢	١	رغبتني في التقرب الشديد من الناس تخيفهم وتبعدهم عني أحيانا
٧	٦	٥	٤	٣	٢	١	أحاول تجنب الاقتراب الشديد من شريكي
٧	٦	٥	٤	٣	٢	١	قليلًا ما يقلقني ان يهجرني الشريك.
٧	٦	٥	٤	٣	٢	١	أناقش عادة مشاكلنا واهتماماتي مع الشريك
٧	٦	٥	٤	٣	٢	١	أشعر بالإحباط إذا لم يتوفر الشركاء الرومنسيون عندما أحتاجهم
٧	٦	٥	٤	٣	٢	١	أصبح عصبياً عندما يتقرب الشريك كثيراً مني.
٧	٦	٥	٤	٣	٢	١	كثيراً ما يقلقني أن الشريك لا يهتم بأمرى بقدر ما أهتم بأمره/ا

## Appendix M: Arabic Version of The Reflective Functioning Questionnaire

يرجى العمل من خلال البيانات الثمانية التالية. لكل عبارة ، اختر رقماً بين ١ و ٧ لتوضيح مدى عدم موافقتك أو موافقتك على العبارة ، واخترها أسفل العبارة. لا تفكر كثيراً في الأمر - فعادة ما تكون ردودك الأولية هي الأفضل. شكراً لك  
١ = لا اوافق ابداً

٢ = لا اوافق الى حد ما

٣ = لا اوافق الى حد بسيط

٤ = حيادي

٥ = اوافق الى حد بسيط

٦ = اوافق الى حد ما

٧ = اوافق كلياً

	تشكل أفكار الآخرين لغزاً بالنسبة إليّ.
	أدرك دائماً ما أشعر به.
	لا أعرف دائماً لماذا أتصرف بطريقة ما.
	عندما أغضب، أقول أشياء لا أعرف تماماً لماذا أقولها.
	غالباً ما تشوش المشاعر القوية تفكيري.
	عندما أكون غاضباً أقول أموراً أندم عليها لاحقاً.
	في حال شعرت بعدم الأمان، يمكنني أن أتصرف بطرق تزعج الآخرين.
	أقوم أحياناً بأفعال من دون معرفة السبب