

THE EMDR INTEGRATIVE GROUP TREATMENT PROTOCOL FOR ONGOING
TRAUMATIC STRESS WITH FEMALE SURVIVORS OF CHILD MARRIAGE,
TRAFFICKING, AND EXPLOITATION IN DHAKA, BANGLADESH

by

Sarah Frances Walsh

A Dissertation Presented in Partial Fulfillment of the Requirements for the Degree Doctor of
Philosophy

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ABSTRACT

This study implements a pilot project investigating the effectiveness of providing the EMDR integrative group treatment protocol adapted for ongoing traumatic stress (EMDR-IGTP-OTS) to females in Dhaka, Bangladesh (and the surrounding areas) who have survived early marriage and sexual exploitation. The aim of the study is to reduce the PTSD symptoms of these women as measured by the Posttraumatic Stress Disorder Checklist for DSM-5 (PCL-5), Hospital Anxiety and Depression Scales (HADS-Anxiety & HADS-Depression). This study analyzes archival data gathered by Scaling UP EMDR. Few studies exist testing actual interventions to help the population of women or using EMDR-IGTP-OTS with this specific population. Therefore, there is a need for more research to address the mental, social, and health-care needs of this vulnerable population.

Keywords: EMDR-IGTP-OTS, child bride, early marriage, exploitation, trafficking

Dedication

For my mom.

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CHAPTER ONE

INTRODUCTION

Six hundred and fifty million girls and women alive today were married before their eighteenth birthday (UNICEF, 2018). In Bangladesh, between the years 2010 and 2017, 59% total of women were married before age 18, with 22% of the population being married under the age of 15 (UNICEF, 2018). Despite considerable social and economic progress in Bangladesh, child marriage remains the norm (Amin et al., 2018). The negative effects of child marriage include spouse violence and controlling behaviors (Nasrullah, Zakar, & Zakar 2014), suicidal thoughts and attempts (Gage, 2013), mental health issues (Le Strat, Dubertret, & Le Foll, 2017), infant and child mortality along with other health issues (Efevbera, Bhabha, Farmer, & Fink, 2017), They also struggle with attaining educational goals (Maertens, 2013). These women may suffer from the symptoms of post-traumatic stress disorder (PTSD), anxiety, and depressive disorders with very little research to show what treatment or resources would be helpful for them. There is a dearth of research targeted towards addressing the needs of women exploited in abusive child marriages and forced into human trafficking. In conducting this study, I sought to address the mental health needs of this group of enslaved girls and women.

Background of the Problem

Children sold into marriage attain less education, have lower participation in the labor force, face a higher risk of death during childbirth, and are more likely to experience domestic violence (Suarez, 2017; Yount et al., 2016). Likewise, these women's children tend to be less educated and suffer poorer health outcomes (Maertens, 2013). In some countries and villages where parents strongly prefer sons to daughters, parents may seek to dispose of their unwanted daughters through child-bride marriage (Suarez, 2017). Vogl (2010) found parents tended to rush

the marriage of their daughter if she has a younger sister. There may also be social norms, which require parents to marry off their daughters before choosing a bride for their son(s) (Maertens, 2013). Little information exists on the mental health implications and possible solutions to end forced child marriages (Gage, 2013).

According to Yount et al. (2016), Bangladesh has the highest prevalence of intimate partner violence (IPV) and very early child marriage (before age 15). They are also frequently victims of intimate partner violence (IPV) including physical, sexual, or psychological aggression, stalking, or coercion by a current or former intimate partner. An organization called BASHA in Dhaka, Bangladesh has formed a program to help these women and their children to escape exploitation. BASHA is a program that provides literacy courses to learn basic reading, writing, and numeracy. They also provide vocational skills training in areas such as jewelry making, Kantha sewing, and industrial sewing machine operation. Using a holistic approach, they offer life skills training, counseling, health, and parenting classes, while also learning to infuse social values into their lives. While the women are in the training program, their young children have educational classes and other activities at the organization's daycare facility. However, the focus was to find ways to help the identified population of women to alleviate the symptoms of PTSD, complex trauma, anxiety, and depression symptoms (Yount et al., 2016).

According to the *Diagnostic and Statistical Manual of Mental Disorders—5* (DSM-5; American Psychological Association [APA], 2013), to receive a PTSD diagnosis, an individual must react with intense fear, helplessness, or horror after exposure to a traumatic event that involved actual or threatened death to oneself or others. PTSD involves a host of symptoms generally categorized in the following three ways: reexperiencing, avoidance/numbing, and hyperarousal (APA, 2013). Substantial evidence for EMDR's strong efficacy in the treatment of

PTSD has resulted in a wealth of studies on the subject as well as recommendations by the Cochrane Review (Bisson & Andrew, 2007; Shapiro, 2001) and in practice guidelines, such as the American Psychiatric Association and the U.S. Veterans Affairs and Defense departments (Maxfield, 2008). Also, EMDR-Integrative Group Treatment Protocol (EMDR-IGTP) has provided a wealth of studies on using group EMDR to treat many populations, such as survivors of natural disasters (Maslovaric et al., 2017), cancer patients (Jarero, Givaudan, & Osorio, 2018; Osorio et al., 2018), refugees (Hurn & Barron 2018), first responders (Jarero, Schnaider, & Givaudan, 2019), ongoing political crises (Jarero & Artigas, 2010), and child survivors of sexual violence (Allon, 2015). Researchers developed Eye Movement Desensitization and Reprocessing Integrative Group Treatment Protocol for Ongoing Traumatic Stress (EMDR-IGTP-OTS) to specifically treat populations who have ongoing stress (Jarero & Artigas, 2018).

Statement of Problem

Existing studies have been done on the educational, health-related, and violence-related issues of the population of child brides (Amin et al., 2018; Efevbera et al., 2017; Le Strat, Dubertret, & Le Foll, 2017; Maertens, 2013; Suarez, 2017; Yount et al., 2016). Shapiro (2018) highlighted the numerous EMDR studies conducted on populations who experienced sexual abuse and received a diagnosis of PTSD. However, minimal research exists on the treatment of mental illness for women married prior to reaching the age of majority. The problem therein lies in the lack of research and treatment options to serve this large and underserved population.

Purpose of the Study

I examine the use of EMDR-IGTP-OTS (Jarero & Artigas, 2018) with a group of Bangladeshi women who have been the victims of exploitation whether through being child brides abused or exploited in marriage, trafficked and/or refugee status. The purpose of this study

is to analyze the results of a study using EMDR-IGTP-OTS (Jarero & Artigas, 2018) protocol for approximately 24 women t currently working with BASHA in Dhaka, Bangladesh. The intent is to identify the efficacy in lowering the symptomology of PTSD, anxiety, and depression in the participants.

Research Questions

This study seeks to answer several research questions. Primarily, this study seeks to understand if the methodology of EMDR-IGTP-OTS helps to lower the symptomology of PTSD. The research questions for this study are as follows:

RQ1: Does EMDR-IGTP-OTS lower the PTSD symptoms of exploited women in Bangladesh according to the PCL-5?

RQ2: Does EMDR-IGTP-OTS lower the anxiety symptoms of participants according to the HADS Anxiety?

RQ3: Does EMDR-IGTP-OTS lower the depression symptoms of participants according to the HADS Depression?

RQ4: Do the symptoms continue to decrease over time according to the scores on the PCL-5, HADS-Anxiety, and HADS-Depression at 90-day posttest?

Significance of the Study

The findings of this study will potentially influence how EMDR-IGTP-OTS can serve not only women in Bangladesh and women in similar cultures/geographical regions but women all over the world who experience exploitation based on being a victim of abusive child marriage. Outcomes can inform practitioners in assisting in the reduction or resolution of symptoms of PTSD, anxiety, and/or depression. I was unable to find previous studies on this modality with this population. An apparent gap in the literature exists regarding the use of EMDR-IGTP-OTS

with the identified population coupled with the lack of mental health interventions for child brides overall. With estimates indicating over 650 million women enduring marriage as a child, the outcomes of the current study can equip counselors with methods of amelioration for the affected population to pursue living healthy, happy lives.

Assumptions and Limitations

The criteria established for participation excluded anyone who was actively suicidal or reported any current substance use or self-harm behaviors during the initial intake assessment. Because researchers deemed EMDR-IGTP-OTS protocol effective with participants from non-Western cultural backgrounds, the assumption was it would have positive results when applied to women from the BASHA program in Bangladesh (Smyth-Dent, Fitzgerald, & Hagos, 2019). The participants resided in a safe-house environment through the BASHA program, therefore prohibiting a direct correlation purely from the EMDR-IGTP-OTS protocol. Living in a safe environment may also influence resultant outcomes. results. I did not receive financial compensation, nor did I have an affiliation with any commercial interest related to the participants in the study. No grants or other donations from funding agencies, commercial or not-for-profit sectors supported the activities conducted to operationalize the research. Generalizability rests in the ability of future investigations to expand to broader populations. There is a need for more research on varying populations to ensure applicability to a wider population.

Definition of Terms

Adaptive Information Processing (AIP): A theoretical model (used specifically with EMDR) hypothesizing that psychopathology derives from memories of inadequately processed adverse life experiences maladaptively stored in a state-specific form (Shapiro, 2018).

EMDR: Eye Movement Desensitization and Reprocessing (Shapiro, 2018) was originally a trauma treatment that has repeatedly shown to be effective in the reduction of PTSD symptoms in the treatment of veterans (Haagen, Smid, Knipscheer, & Kleber, 2015) and then expanded to treat multiple populations. The application of EMDR follows a standardized protocol (Shapiro, 2018). The researcher designed eight phases of EMDR treatment (history, preparation, assessment, desensitization, installation, body scan, closure, and reevaluation) to facilitate the reprocessing of traumatic content by forging associations with adaptive information mediated in memory networks (Shapiro, 2018). Treatment providers access images, emotions, cognitions, and bodily sensations related to the traumatic event while the client simultaneously attends to a form of bilateral stimulation (e.g., visual, auditory, or tactile) administered as part of structured procedures (Shapiro, 2018). As a result, the information is properly reinterpreted and then appropriately stored in memory networks that contain no disturbance (Shapiro, 2018).

EMDR-IGTP-OTS: The EMDR-integrative group treatment protocol (EMDR-IGTP) for early intervention was developed by members of the Mexican Association for Mental Health Support in Crisis (AMAMECRISIS) to deal with the extensive need for mental health services after Hurricane Pauline ravaged the coasts of the states of Oaxaca and Guerrero in 1997 (Jarero & Artigas, 2016). The protocol combines the eight EMDR treatment phases with a group therapy model and an art therapy format using the Butterfly Hug as a form of a self-administered bilateral stimulation (Jarero & Artigas, 2016). Participants run a mental movie of the trauma and identify a target for processing. The participants then draw pictures to represent how they felt about their targets and assigned scores on the SUD scale for their target memories. Focusing on their target memory and feelings, the participants experience four 2-minute periods of bilateral stimulation (the Butterfly Hug) (Jarero & Artigas, 2016). At the end of each period, the

participants again draw pictures to represent how they feel about their target memory and assigned SUD scores. After the last period of bilateral stimulation, the participants also draw a picture with a word or caption to represent how they viewed the future (Jarero & Artigas, 2016). Participants then do a body scan (Jarero & Artigas, 2016). There is time allotted at the end for participants to discuss their experience with the processing (Jarero & Artigas, 2016).

Child Bride: In this study and much of the literature, a child bride is someone who was married before the age of 18, while “very early marriage” constitutes being married before 15 (UNICEF, 2018). The term “child bride” carries different definitions by some people and populations. This term is based on the definition provided by UNICEF (2018) and used to relate the findings to terms already used in the literature. Researchers use the terms ‘child bride’ and ‘early marriage’ interchangeably.

PTSD: As defined by the DSM-5 (APA, 2013), a person with a PTSD diagnosis must meet pre-determined criteria including experiencing a stressor (one required) exposure to death, threatened death, actual or threatened serious injury, or actual or threatened sexual violence. They report (a) direct exposure, (b) witnessing the trauma, (c) learning a relative or close friend experienced exposure to a trauma, (d) indirect exposure to aversive details of the trauma, usually in the course of professional duties (e.g., first responders, medics); criterion (B) intrusion symptoms (one required): The traumatic event is persistently re-experienced in the following way(s): (a) unwanted upsetting memories, (b) nightmare, (c) flashbacks, (d) emotional distress after exposure to traumatic reminders, (e) physical reactivity after exposure to traumatic reminders; Criterion (C) avoidance (one required): Avoidance of trauma-related stimuli after the trauma, in the following way(s): (a) trauma-related thoughts or feelings, (b) trauma-related external reminders; Criterion (D): negative alterations in cognitions and mood (two required): negative

thoughts or feelings that began or worsened after the trauma, in the following way(s): (a) inability to recall key features of the trauma, (b) overly negative thoughts and assumptions about oneself or the world, (c) exaggerated blame of self or others for causing the trauma, (d) negative affect, (e) decreased interest in activities, (f) feeling isolated, (g) difficulty experiencing positive affect; Criterion E: alterations in arousal and reactivity: trauma-related arousal and reactivity that began or worsened after the trauma, in the following way(s): (a) irritability or aggression, (b) risky or destructive behavior, (c) hypervigilance, (d) heightened startle reaction, (e) difficulty concentrating, (f) difficulty sleeping; Criterion F: duration (required): symptoms last for more than 1 month; Criterion G: functional significance (required): symptoms create distress or functional impairment (e.g., social, occupational). Criterion H: exclusion (required): symptoms are not due to medication, substance use, or other illness.

Theoretical Framework

Eye movement desensitization and reprocessing (EMDR) is a therapeutic approach based on the adaptive information processing (AIP) model that emphasizes the brain's intrinsic information processing system and how people store memories (Solomon & Shapiro, 2008). These memory networks are the basis of perception, attitudes, and behavior (Shapiro, 2018; Solomon & Shapiro, 2008). The EMDR-IGTP-OTS protocol is based on the AIP theoretical framework by Shapiro (2018). The theoretical underpinnings of the (AIP) model hypothesize that memory networks are the basis of pathology and health (Shapiro, 2018). The AIP model integrates elements of psychotherapies such as psychodynamic, cognitive-behavioral, person-centered, body-based, and interactional interventions (Shapiro & Maxfield, 2002; Solomon & Shapiro, 2008).

Adaptive Information Processing Model (AIP)

Researchers using the AIP model theorize that psychopathology (PTSD, affective disorders, chronic pain, addiction, and various other disorders) is primarily caused by inadequately processed memories of adverse life experiences, maladaptively stored in a state-specific form (Hase, Balmaceda, Ostacoli, Liebermann, & Hofmann, 2017; Shapiro, 2018; Solomon & Shapiro, 2008). People store recollections as associations, form memory networks connecting present to past experiences, triggered by current internal and external stimuli. This process contributes to the present dysfunction in multiple aspects of daily life (Shapiro, 2018; Solomon & Shapiro, 2008).

Activation of these memories, even years after the event, can lead to a spectrum of symptoms including intrusions ranging from an overwhelming experience to barely noticeable disturbances (Hase et al., 2017). adaptive processing occurs when someone forges associations with previously stored material. This leads to learning how to relieve emotional distress while increasing the availability of material for future use (Hase et al., 2017). Shapiro (2018) suggested treating older traumatic memories generally by concentrating on one part of the traumatizing event and targeting one part usually results in reprocessing the whole memory. The reprocessing effect becomes generalized to the entire recollection. As memories become less salient, clients can access and attend to more adaptive information, forging new connections within the memory network (Shapiro & Maxfield, 2002).

Memory consolidation. Shapiro (2018) hypothesized that the memory of an isolated recent traumatic event consolidates on varying levels. Users of the AIP model suggested the information related to a distressing or traumatic experience is not fully processed causing people to store the initial perceptions as input, along with any distorted thoughts or perceptions

experienced at the time of the event (Shapiro & Maxfield, 2002) These distressing memories become the basis for dysfunctional reactions if they remain unprocessed (Shapiro & Maxfield, 2002). Based on clinical observation following the 1989 San Francisco Bay Area earthquake, Shapiro (2018) estimated the time required for consolidation is approximately 2- 3 months. However, no definitive research exists to measure the period of the memory consolidation processor to determine the influence of individual variables (Jarero & Artiga, 2016). It appears that the time for memory consolidation may vary considerably (Jarero & Artiga, 2016; Maxfield, 2008). From a neurobiology perspective, consolidation is a transition from short to long-term memory, and an individual's timing can vary considerably (Centonze, Siracusane, Calabresi, & Bernardi et al., 2005; Jarero & Artiga, 2016; Maxfield, 2008).

Though Shapiro (2018) suggested using a recent event protocol for an isolated individual trauma occurring within the last 2–3 months. Researchers suggested the use of, EMDR-PRECI); or the recent traumatic episode protocol (R-TEP)) in case of an extended post-crisis period of natural or man-made disasters, in order to address situations in which there is ongoing trauma and therefore no subsequent period of safety (Jarero & Artiga, 2016; Jarero, Artigas, & Luber, 2011; Shapiro & Laub, 2008). AIP is the cornerstone of EMDR therapy because it interprets clinical phenomena, predicts positive treatment outcomes, and guides clinical practice (Shapiro, 2018; Shapiro & Maxfield, 2002; Solomon & Shapiro, 2008).

AIP model-based Acute Trauma and Ongoing Traumatic Stress

The AIP model-based acute trauma and ongoing stress case conceptualization by Jarero and Artigas (2016) sought to expand the clinical and research horizons of the EMDR early interventions for individuals and groups. According to Jarero and Artigas (2019), the effect of trauma exposure is cumulative and associated with the effects of prior trauma with more severe

emotional responses to the next trauma (Berninger et al., 2010; Brewin, Andrews, & Valentine, 2000; Jarero & Artigas, 2019). This conceptualization highlighted the possibility of existing conceptualizations of traumatic stress, such as PTSD and complex PTSD, may have limited utility for ongoing threat and danger due to the notion trauma exposure locates temporally in the past (Jarero & Artigas, 2019; Stevens, Eagle, Kaminer, & Higson-Smith, 2013).

Many previous studies resulted in illuminating how individuals exposed to prolonged, repeated, or multiple stressful events demonstrated increased PTSD symptoms when compared to individuals who experienced only one stressful event (Jarero & Artigas, 2019; Koopman, Classen, & Spiegel, 1994; McFarlane, 1989; Uddo, Allain, & Sutker, 1996). Controversy exists regarding whether the risk of PTSD and comorbid disorders increases with the number of exposures and multiple stressors may exacerbate PTSD symptoms because the initial trauma may lower a person's coping resources to address subsequent stressors, and if a person may already be suffering clinical or subclinical PTSD when new stressors appear (Freedman, Brandes, Peri, & Shalev, 1999; McFarlane, 2010). In their conceptualization, Jarero and Artigas (2019) cited Nuttman-Shwartz and Shoval-Zuckerman (2015) who discussed the need for supplementary frameworks to understand the psychological effect of living with ongoing exposure to danger, as well as appropriate intervention strategies for coping with life in a reality of persistent violence.

From their extensive work with survivors of natural and human-provoked disaster, Jarero and Artigas (2019) observed how patients recount the event in a fluid narrative from just before the impact until the present moment (even six or more months later, with no post-trauma safety/calm period lapses). This fluid narrative revealed a continuum, often along with the themes of safety, responsibility, and choice. Patients experience such an extended period of

multiple traumatic events as one continuous recent traumatic event (Jarero & Artigas, 2019; Jarero, Artigas, & Luber, 2011). For this reason, Jarero and Artigas (2019) used Shapiro's (2018) AIP theoretical framework in their conceptualization of the type of ongoing traumatic events that occurred within a three or more months period in which there is no post-trauma safety window for traumatic memory consolidation.

Memory Consolidation. Acute trauma situations are related not only to a time frame (days, weeks, or months) but also to a post-trauma safety period (Jarero et al., 2011; Jarero & Uribe, 2011, 2012; Jarero et al., 2015a; Jarero et al., 2015b). Their hypothesis was often, the ongoing lack of safety prevented the consolidation of the traumatic memory network. that the result was the inability of one separate part to represent the entire memory network, and for that reason, reprocessing one part of the memory did not affect any other part of the network. Therefore, the continuum of external traumatic events created a cumulative trauma exposure memory network of linked pathogenic memories with similar emotional, somatic (body sensations), sensorial (the five senses), and cognitive information (thoughts and beliefs), incapable of offering the cumulative state-dependent traumatic memory network sufficient time to consolidate into an integrated whole (Centonze et al., 2005; Jarero et al., 2013; van der Kolk & van der Hart, 1991).

From a neurobiological perspective, the external traumatic events generate a continuous cortisol exposure over the hippocampus (especially in the CA3 regions), potentially related to the deterioration of the cumulative trauma exposure memory network consolidation-capacity and, therefore, the impossibility to consolidate into an integrated whole (Kim et al., 2015). Thus, this network of linked pathogenic memories remains in a permanent excitatory state as a short-term memory, expanding with each subsequent traumatic event to the first traumatic experience in this

continuum (analogous to the ripple effect of a pebble thrown into a pond). The process extends into the present moment and often produces maladaptive/catastrophic concerns about the future or flash-forwards (Logie & de Jongh, 2014).

Contrast to Group Recent Event Protocol (G-TEP)

It is important to note how EMDR-IGTP-OTS differs from another well-known group EMDR protocol, the Group Recent Event Protocol (G-TEP). The EMDR Group Traumatic Episode Protocol (G-TEP) is a new protocol developed by Shapiro and Laub (2013) with some similarities to the EMDR-IGTP but also very distinctive differences (Yurtsever et al., 2018). Originally introduced in a 2013 presentation EMDR-IGTP is a group modification of R-TEP, designed specifically for recent traumatic events with ongoing consequences (Shapiro, 2013). GTEP has a maximum of 12 people in the group, while EMDR-IGTP does not have a maximum number. GTEP includes certain printed handouts to follow, while EMDR-IGTP only requires a blank sheet of paper and crayons (this is helpful for its accessibility in remote locations and multi-lingual treatment scenarios). EMDR-IGTP takes into consideration the future when participants run the mental movie (looking for 'flashforwards'). Though proven effective with similar populations, both protocols have similar elements, however, administering EMDR-IGTP-OTS offers cost-effective, culturally sensitive treatment in varying locations (e.g. a tent in a refugee camp).

Organization of Remaining Chapters

In the next chapter, the literature review, I examine current empirical, theoretical, and relevant literature associated with the treatment of symptoms and experiences of a child bride. Examining current literature contributes to building a rationale for the conceptualization of the stated problem, citing relevant research to defend the selection of EMDR-IGTP-OTS for this

study. In Chapter Three, I describe and defend the research design including the relationships between the problem (the symptomology of child brides), the research questions/hypotheses, design and methods, a description of the population is addressed, and the data processing and analysis procedures are explored. In Chapter Four, I articulate the data analysis results. Chapter five will include the summary, conclusions, and recommendations. I will discuss the findings along with the relevant conclusions drawn from the analysis of the data. Contextualizing the findings within the context of the literature leads to asserting recommendations for future research directions and implications for emerging practice strategies. Finally, I articulate suggestions specifically targeted towards counselors and counselor educators.

Chapter Summary

Despite considerable social and economic progress in Bangladesh, as well as global awareness of this epidemic, child marriage remains a common part of many cultures (Amin et al., 2018). Researchers documented how child marriage can have detrimental consequences on the life and health of girls' and women's behaviors (Efevbera, Bhabha, Farmer, & Fink, 2017; Le Strat, Dubertret & Le Foll, 2017; Yount et al., 2016). It is imperative to develop treatment options for this vast population and empirically based studies completed to ensure the quality of care. EMDR-IGTP-OTS is a promising option for the treatment of this population and holds promise as an effective modality in strategies to improve the mental health of children married prior to achieving advanced stages of maturation.

CHAPTER TWO

LITERATURE REVIEW

The main objective of this study is to evaluate the effectiveness of the EMDR-integrative group treatment protocol for ongoing traumatic stress (EMDR-IGTP-OTS; Jarero & Artigas, 2016) in reducing posttraumatic stress disorder (PTSD), depression, and anxiety symptoms in women who have experienced trauma due to becoming married as a child. I will present an analysis of existing data and review salient literature regarding the treatment of female survivors of South-Asian and sub-Saharan Africa female survivors of child marriage. Estimates range from 50% and 40% of girls from these regions respectively, marry prior to reaching their eighteenth birthday (Nasrullah, Zakar, Krämer, 2015; Schaffnit, Urassa, & Lawson, 2019). I reviewed articles from 2010 and later retrieving content through searches on EBSCOhost, Sage Research Methods Database, APApsych Info, ProQuest and Google Scholar using the search terms: *EMDR, EMDR-IGTP, EMDR-IGTP-OTS, early marriage, child bride, sex-trafficking, and exploitation*. The search included journal articles and dissertations.

There are three major areas of focus found in the existing literature on this population, health issues and interventions, social/educational issues and interventions, and psychological issues and interventions (Parsons, Edmeades, Kes, Petroni, Santhya, 2011; Raj, 2010; Sattarzadeh, Farshbaf-Khalili, & Hatamian-Maleki, 2019; Sexton, & Wodon, 2015). The aim of reviewing these groups was to examine what problems and symptoms the population face, existing interventions, and the absence of supportive services targeting the population's unique needs. Though existing studies explore symptomology, duration, and causes of early marriage, there remains a dearth of treatments to assist a population of vulnerable children. There is a

strong need for additional scholarly research on health, social, and mental health interventions that could help victims at risk of health complications, socio-educational issues, and psychological problems.

Healthcare Interventions

Many existing studies on the population of girls who suffered early marriage view the problems and treatment from a healthcare perspective (Cislaghi, Mackie, Nkwi, & Shakya, 2019; Efevbera et al., 2017; Marphatia, Ambale, & Reid, 2017; Seff, et al., 2019; Sezgin & Punamäki, 2019). Within patriarchal societies, researchers noted adolescent pregnancy symbolizes fertility and blessing, and therefore should not be harmful to women (Das, 2017; Herliana, Utami, & Kurniati, 2018; Pandey, 2017; Sezgin & Punamäki, 2019). Yet early marriage and adolescent pregnancy can prove to be severe risks for women's somatic and reproductive health, including cardiovascular problems (Das, 2017; Herliana et al., 2018; Pandey, 2017; Sezgin & Punamäki, 2019).

A range of socioeconomic and demographic factors such as rural-urban residence, caste, religion, educational attainment, age of childbirth, and body mass index can determine pregnancy-related health outcomes (Das, 2017; Efevbera et al., 2017; Parsons et al., 2015; Paul, 2018). Reproductive health outcomes in four South Asian countries (India, Bangladesh, Nepal, and Pakistan) showed a negative association with child marriage after controlling for other individual-, household-, and community-level factors result from multivariate models of maternal healthcare (Godha, Hotchkiss, & Gage, 2013; Pandey, 2017; Santhya, 2011; Singh & Vennam, 2016).

Child marriage significantly correlates with an increased likelihood of stunting and obesity among children who experienced a miscarriage or stillbirth (Cislaghi et al., 2019; Gage,

2013; Pandey, 2017; Raj & Boehmer, 2013). A three-continent register study (23 low- and middle-income countries) found higher risks for low birth weight, preterm delivery, and severe neonatal conditions among 10–19-year-old mothers as compared with older ones (Ganchimeg et al., 2013).

Nour (2006) believed governments should incorporate preventive and treatment programs for reproductive health issues into their health services (Arthur et al., 2018); Culturally appropriate programs that provide families and communities with education and reproductive health services can help stop child marriage, early pregnancies, illness, and death in young mothers and their children (Efevbera et al., 2017). Programs should also engage and enable the choice, voice, and agency of girls (Marphatia et al., 2017; McDougal et al., 2018; Scolaro et al., 2015). Despite these recommendations, I was unable to find healthcare-specific interventions in the literature. There exists a gap in the literature concerning the treatment of health problems faced by this population.

Social Interventions

There is an absence of grounding effective healthcare interventions within sound theoretical understandings of the varying influence of social norms (Bicchieri, Jiang, & Lindemans, 2014; Cislighi et al., 2019). Social norms make compliance with the child marriage practice (respectively) possible, tolerated, appropriate, and obligatory (Cislighi et al., 2019; Parsons et al., 2015; Schaffnit et al., 2019; Yulyani, & Kurniati, 2019). Social norms require, victims of forced sex in Bangladesh to marry their perpetrators, especially if the perpetrator, rather than a stranger, is known to the victim or her family (Seff et al., 2019). Although a growing number of governments have taken steps to criminalize early marriage, prevailing norms and beliefs make these laws difficult to enforce (Arthur et al., 2018; Das, 2017; Nasrullah et al., 2015; Seff et al.,

2019; Yulyani, & Kurniati, 2019). For example, many communities support the notion that early marriage serves as protection from rape, unintended pregnancy, and sexually transmitted diseases (Bicchieri et al., 2014; Das, 2017; Schaffnit et al., 2019; Seff et al., 2019). Financial factors play a role as well. The younger the age of the girl when forced to marry in many contexts, the higher the dowry paid to the bride's family, and the sooner the economic burden of raising the girl is lifted (Bartels et al., 2018; Corno, & Voena, 2016; Parsons et al., 2015; Raj et al., 2019; Seff et al., 2019).

High community involvement in stopping child marriage acts as a protective factor. This requires stronger community action to end the practice (Bartels et al., 2018; Das, 2017; McDougal et al., 2018; Yount et al., 2016). Communities must raise awareness of the negative consequences of child marriage and provide social, legal, and institutional support to the affected population, with an emphasis on those victimized by spousal violence (Arthur et al., 2018; Kenny, Koshin, Sulaiman, & Cislighi, 2019; Sattarzadeh et al., 2019; Yount et al., 2016).

Early marriage is strongly correlated with lower educational attainment because girls are often expected to leave school to devote time to their new home, or childbearing and child-rearing (Delprato, Akyeampong, & Dunne, 2017; Landis, Falb, Michelis, Bakomere, & Stark 2018; Parsons et al., 2015; Sattarzadeh et al., 2019). Findings showed efforts in school retention build upon the assumption that girls want to stay in school (Nasrullah et al., 2014; Raj et al., 2019). However, this is not always the case. Low resource families may be understandably unwilling to enforce education on girls where their stance is contrary to local norms and may compromise marital prospects (Bartels et al., 2018; Raj et al., 2019). Also, education is expensive, and some families are unable to afford it (Raj et al., 2019).

Another study conducted a clustered randomized trial in rural Bangladesh to evaluate the impact of two policy approaches to reducing child marriage and teenage childbearing – an adolescent empowerment training program and a conditional incentive program (Buchmann et al., 2016). The study conducted on 19,059 girls 4.5 years after an educational empowerment program show that girls eligible for the incentive for at least two years were 22% less likely to be married under 18, 14% less likely to have given birth under 20, and 22% more likely to be in school at age 22 (Buchmann et al., 2016).

Though the studies by Raj et al. (2019) and Buchmann et al. (2016) showed how educational interventions influenced marital age, there remains a need for additional research on these strategies. Aside from educational interventions, cash transfers are among some of the existing studied interventions in the literature, and many of those fall outside of the parameters for existing since 2010. The results and sustainability of giving cash to families are mixed, with cash transfers being more of a viable short-term solution (Sekher & Ram, 2015). For example, among 1,549 Kenyan orphans and vulnerable children who receive unconditional cash transfers, results in the first pregnancy age to decreased by 5 percentage points (34%) (Handa et al., 2015). However, there were no measurable effects of cash payments on early marriage (Handa et al., 2015). Limited success and sustainability make the possibility of paying families to keep their daughters unwed low. There is a greater need for interventions, especially sustainable options to help this population.

Psychological Interventions

The responsibilities of a child bride can result in separation from family and friends, and social isolation, which may, in turn, contribute to depression, posttraumatic stress disorder, and suicidal ideation (Ahmed Khan, Alia, & Noushad, 2013; Gage, 2013; Mathur, Greene, &

Malhotra, 2003; Raj, Saggurti, Lawrence, Balaiah, & Silverman, 2010). Child marriage practice is significantly associated with controlling behaviors and spousal violence by husbands compared with adult marriage, even after controlling for social vulnerabilities (women's economic status, education, ethnicity, and place of residence) (Decker et al., 2014; Falb et al., 2015; Nasrullah et al., 2014; Parsons et al., 2015). Child marriage (before age 18) is a risk factor for intimate partner violence (IPV) against women, which can lead to depression, among other psychological symptoms (Ahmed et al., 2013; Decker et al., 2014; Clark et al., 2017; Esie, Osypuk, Schuler, & Bates, 2019; Falb et al., 2015). For girls, early marriage is a factor for increased risk of physical and emotional abuse from their husbands and in-laws, as well as marital rape and sexual coercion (Falb et al., 2015; Le, Tran, Nguyen, & Fisher, 2014; Nasrullah, Zakar, Zakar, Abbas, & Safdar, 2015; Yount et al., 2016).

There is an association between child marriage and an increased odd of suicidal thoughts in girls aged 10-17 years old in Ethiopia (Gage, 2013). Participants described persistent worry, loneliness, and isolation as common expressions of psychosocial distress (Ahmed et al., 2013; Mazzuca et al., 2019). Research from Africa and South Asia also revealed how girls engaged or married as minors become vulnerable to depression and suicidality, in great part to its link with varying forms of gender-based violence (e.g., forced marriage and spousal violence) and increased responsibility for which they are not equipped (Ahmed et al., 2013; Falb et al., 2015; Raj, 2010). Although researchers highlighted the adverse symptoms of this population, I was unable to locate mental health intervention studies during my review of the literature.

Treatment Modality

Members of the Mexican Association for Mental Health Support in Crisis (AMAMECRISIS) developed EMDR-integrative group treatment protocol (EMDR- IGTP) for

early intervention in dealing with the massive need for mental health services after Hurricane Pauline ravaged the coasts of the states of Oaxaca and Guerrero in the year 1997 (Artigas & Jarero 2014). The protocol combined the eight EMDR treatment phases with a group therapy model and used the Butterfly Hug (BH) as a form of a self-administered bilateral stimulation (Artigas & Jarero 2014). Jarero, Artigas, Uribe, and García (2016) adapted the EMDR-IGTP to treat individuals living with ongoing traumatic stress with no post-trauma safety period for memory consolidation (like survivors of child marriage or sexual abuse).

Extensive rationale exists for using EMDR-IGTP-OTS with the population of women sold into marriage (Jarero & Artigas, 2016). EMDR-IGTP-OTS demonstrated the ability to reduce PTSD, anxiety, and depression symptoms in individuals with ongoing traumatic stress (Allon, 2015; Jarero & Artigas, 2016; Zaghrou-Hodali, Alissa, & Dodgson, 2008). The EMDR-IGTP-OTS provided individual EMDR therapy in a group setting, demonstrated the ability to treat many individuals simultaneously (Jarero & Artigas, 2016). This is highly valuable in settings with limited mental health resources, or where individuals in community-minded cultures may not feel comfortable receiving treatment from a stranger unaccompanied (Jarero & Artigas, 2016).

Jarero and Artigas (2016) studied EMDR-IGTP-OTS with ongoing or prolonged traumatic events such as sexual abuse and severe interpersonal violence. Allon (2015) and Zaghrou-Hodali et al. (2008) documented issues faced by emergency response personnel and active military, people living in war-torn areas, and those experiencing life-changing events with ongoing traumatic stress or extreme stressors (e.g., refugees, internally displaced persons, long term disasters, prolonged violent conflicts or terrorism. There are five studies highlighted in this literature review as key studies due to their relevance regarding the treatment modality used, the

similarity of populations, and the recent nature of their publication. I compiled the findings of these key studies in Table 1.

Table 1

Compilation of previous studies

Author	Modality	N	Population	Findings	Limitations
Jarero, Givaudan, & Osorio, (2018)	EMDR-IGTP-OTS	Treatment (N = 35) and no-treatment control (N = 30)	Female Patients With Cancer-Related Posttraumatic Stress Disorder Symptoms	EMDR-IGTP-OTS was effective in significantly reducing symptoms of PTSD, anxiety, and depression, with symptoms maintained at 90-day follow-up and with large effect sizes (e.g., $d = 1.80$). A comparison of the treatment and no-treatment control groups showed significantly greater decreases for the treatment group on symptoms of PTSD, anxiety, and depression.	After six administrations, an average of 8% of participants needed additional treatment according to author observation.
Osorio, Pérez, Tirado, Jarero, & Givaudan, (2018)	EMDR-IGTP-OTS	Treatment (N=11) and no-treatment control (N=12)	Twenty-three adolescents and young adults with different types of cancer (breast, leukemia, lymphoma) and PTSD symptoms.	Data analysis by repeated measures ANOVA showed that the EMDR-IGTP-OTS was effective in significantly reducing symptoms of PTSD, anxiety, and depression, with symptoms maintained at 90-day follow-up and with large effect sizes (e.g., $d=1.17$). A comparison of the treatment and no-treatment control groups showed significantly greater decreases for the treatment group on symptoms of PTSD, anxiety, and depression.	Small sample size.
Molero, Jarero, & Givaudan (2019)	EMDR-IGTP-OTS	(N=184)	Male refugees aged 13-17	Data analysis by repeated measures ANOVA showed that the EMDR-IGTP-OTS was effective in reducing PTSD symptoms in the treatment group. A comparison of the treatment and no-treatment control groups showed significantly greater decreases for the treatment group on symptoms of PTSD, anxiety, and depression.	The lack of a formal diagnosis of PTSD in the research population, the 90-days follow-up, and only one gender population (males).
Wong (2018)	EMDR-IGTP-OTS	(N=6)	Female Chinese immigrants, for whom the distress of a divorce had lasted more than the 2 to 3	Scores showed a 65.6% reduction between week 2 and 13 weeks after treatment, with a large effect size of $d = 1.40$, and a significant decrease of $t(4)=4.0$, $p = .016$.	Small sample size, lack of racial and gender diversity, and lack of a control group.

Smyth-Dent, Fitzgerald, & Hagos, (2019)	EMDR-IGTP-OTS	years typical of divorce recovery.	<p>Statistical analysis showed a significant difference between pre-test (M=42.63, SD=14.69) and post-test (M=27.46, SD=16.83); $t(47) = 4.43$, $p < 0.0001$ in PTSD symptoms, depression symptoms pre-test (M=9.31, SD=3.71) and post-test (M=5.88, SD=4.88); $t(47) = 4.43$, $p < 0.0001$, and in anxiety symptoms pre-test (M=10.65, SD=4.03) and post-test (M=6.73, SD=4.89); $t(47) = 3.99$, $p < 0.001$.</p>	Lack of control group and the small sample size, testing males only
	(N=48)	Adolescent male refugees living inside the Shimelba refugee camp in Shiraro, Ethiopia		

Table of Key Studies

The finding of these key studies indicated how the intensive administration of the EMDR-IGTP-OTS could be a feasible, cost-effective, time-efficient, culturally sensitive, and effective component of a multidisciplinary psycho-social group-based program. They represent opportunities to address PTSD, depression, and anxiety symptoms of populations with ongoing traumatic stress, such as those who have suffered because of early marriage and exploitation. The modality of EMDR-IGTP-OTS demonstrated methods to effectively lower the PTSD, anxiety and depression symptoms of many similar populations it is being proposed as a treatment method to help the identified population find relief and a reduction of their similar psychological symptomology (Allon, 2015; Jarero & Artigas, 2016; Zaghrout-Hodali et al., 2008).

Chapter Summary

A review of the literature highlighted while many studies are examining the symptomology, extent, cultural factors, and causes of early marriage, there remain minimal interventions in existing literature directly exploring how to treat this large population of women and girls. The issues facing the women fragment into health-related, social, and psychological, based on existing interventions in the literature. Though the proposed treatment modality is mainly psychological, the goal is to promote a healthier, happier existence for the affected

population. EMDR-IGTP-OTS is the proposed method of treatment to examine whether the process lowers PTSD, anxiety, and depression symptoms in woman forced into child marriage

CHAPTER THREE

METHODS

The purpose of this study is to implement a pilot project investigating the feasibility and effectiveness of providing the EMDR Integrative Group Treatment Protocol Adapted for Ongoing Traumatic Stress (EMDR- IGTP-OTS) (Jarero & Artigas, 2016) to participants who enter the BASHA program in Dhaka, Bangladesh. BASHA is a program helping women who experienced ongoing or severe trauma including one or more of the following: child marriage, desertion by a spouse, family breakdown, homelessness, sex trafficking, rape, imprisonment, death of spouse or parent, child sex abuse, and formal or informal prostitution. To conduct this study, I analyze existing archival data gathered by Scaling UP EMDR. The need to provide mental health services for a traumatized group of people is imperative. The main objective of this study is to evaluate the effectiveness of the EMDR-integrative group treatment protocol for ongoing traumatic stress (EMDR-IGTP-OTS) (Jarero & Artigas, 2016) in reducing posttraumatic stress disorder (PTSD), depression, and anxiety symptoms in BASHA participants.

The EMDR-IGTP-OTS (Jarero & Artigas, 2016) protocol provides individual EMDR therapy in a group setting, facilitating multiple individuals receive simultaneous treatment. This is highly valuable in a setting with limited mental health resources such as Dhaka, Bangladesh, and surrounding rural areas. EMDR-IGTP-OTS has the potential to effectively deter symptomology for the population of women served by BASHA. In this chapter, I outline the research design, along with describing the participants, instruments used, and the data analysis process.

Research Design

I used a pre/post-treatment measurement design to measure PTSD, anxiety, and depression symptom changes before and after the delivery of the EMDR-IGTP-OTS treatment (Jarero & Artigas, 2016). Participants were assessed using the Posttraumatic Stress Disorder Checklist (PCL-5; Blevins, Weathers, Davis, Witte, & Domino, 2015) and Hospital Anxiety and Depression Scale (Zigmond & Snaith, 1983) pre-treatment (test 1), at 30-days post-test (test 2), and 3-month follow-up (test 3).

The Jarero and Artigas (2016) conducted EMDR-IGTP-OTS a minimum of six times over two consecutive days for each participant. Participants received lunch, drinks, and snacks each day of the treatment. Scaling Up Independent Contractors (EMDR therapists) implemented the EMDR-IGTP-OTS in Bangladesh. They required participants to fulfill the inclusion criteria and assistants collected their demographic information, applied the PCL-5 asking the participants specifically for the worst event related to their experience to identify EMDR-IGTP-OTS and applied the HADS (Blevins et al., 2015; Jarero & Artigas, 2016; Zigmond & Snaith, 1983). A professional who was blind to the treatment group status conducted all posttreatment and follow-up assessments.

Selection of Participants

According to the creators of the EMDR-IGTP-OTS general inclusion criteria to receive treatment by this modality included individuals who have been through the same type of ongoing or prolonged traumatic events such as sexual abuse or severe interpersonal violence, similar to the women at BASHA (Jarero & Artigas, 2016), The experiences also included life-changing experiences with ongoing traumatic stress or extreme stressors (e.g., refugees, internally displaced persons, long term disasters, prolonged violent conflicts or terrorism), at-risk personnel

(e.g., agencies and NGOs staff dealing with natural disasters and violent conflicts, emergency response personnel, military on duty), or diverse ongoing trauma histories with unifying circumstances in common (e.g., chronic or severe illness; those with ongoing domestic violence situations that have not been resolved and are still unsafe to some degree (Jarero & Artigas, 2016). In this study, exclusion criteria included (a) current suicidal ideation; (b) a diagnosis of psychotic or bipolar disorder, organic mental disorder, or substance abuse; (c) current homicidal ideation; and (d) significant cognitive impairment. Women who range in age from early 20s to mid-30 voluntarily participated and memorized their consent both verbally and by affixing their signature to required forms. I detailed the demographic information recorded for each participant in Appendix A.

Instrumentation

The Posttraumatic Stress Disorder Checklist for DSM-5 (PCL-5; Blevins et al., 2015) contains 20 items, including three new PTSD symptoms (compared with the PTSD Checklist for DSM-IV, blame, negative emotions, and reckless or self-destructive behavior (Blevins et al., 2015). The instrument was translated from English to Tigrinya. The participants specify how much PTSD symptoms bothered them over the past week using a 5-point scale ranging from 0 = not at all, 1 = a little bit, 2 = moderately, 3 = quite a bit, and 4 = extremely (Blevins et al., 2015). Summing the items produces a total-symptom score of zero to 80 (Blevins et al., 2015). The total of the scores yields a continuous measure of PTSD symptoms severity for symptom clusters and the whole disorder Psychometrics for the PCL5 suggested a score of 31-33 is optimal to determining a probable PTSD diagnosis, and a score of 33 is recommended for use at pre-set The PCL-5 (Blevins et al., 2015) is intended for a variety of clinical and research assessment tasks, including quantifying PTSD symptom severity, measuring the underlying construct of PTSD,

establishing a provisional PTSD diagnosis, and estimating the presumed prevalence of PTSD (validated against the Clinician-Administered PTSD Scale-5 (CAPS-5) diagnosis; Blevins et al., 2015). The internal consistency of the PCL-5 (Blevins et al., 2015) was high ($\alpha = .94$) in the pilot study (Blevins et al., 2015) and the instrument showed an adequate convergent validity (Ibrahim, Ertl, Catani, Ismail, & Neuner, 2018); Using the cut-off score of 23, the PCL-5 (Blevins et al., 2015) achieved the optimal balance of sensitivity and specificity (area under the curve = .82, $p < .001$; sensitivity = .82, specificity = .70) (Ibrahim et al., 2018).

Zigmond and Snaith (1983) extensively used the hospital anxiety and depression scale (HADS) to evaluate these psychiatric comorbidities in various clinical settings at all levels of healthcare services and with general populations. The instrument is a 14 item self-report scale measuring the anxiety (7 items) and depression (7 items) of patients with both somatic and mental problems using a 4-point Likert scale ranging from 0 to 3. The response descriptors of all items are Yes, definitely (score 3); Yes, sometimes (score 2); No, not much (score 1); No, not at all (score 0). A higher score represents higher levels of anxiety and depression: a domain score of 11 or greater indicates anxiety or depression; 8-10 indicates borderline case; 7 or lower indicates no signs of anxiety or depression. The internal consistency of the two HADS subscales as measured with Cronbach's coefficient alpha with on average values of at least ($\alpha = .80$).

Research Procedures

Trained research assistants will provide psychoeducation about trauma and answered participant's questions related to trauma, PTSD, anxiety, depression, and EMDR therapy. During the first meeting, mental health professionals will conduct the intake interview, collect clinical histories, get signatures for the informed consent forms. Research assistants who were not blind to the study, completed the application of EMDR-IGTP-OTS after the procedure. Those blind to

treatment allocation conducted test 2 (post-treatment assessment 30 days after treatment) and test 3 (post-treatment assessment 90 days after treatment assessment) for all participants. Analysis of the results followed this process.

Data Processing and Analysis

The statistical analysis included all 27 participants who completed paired t-tests and pre- and post-test scores for the PCL-5 (Blevins et al., 2015) along with depression and anxiety scales of the HADS (Zigmond & Snaith, 1983). I used analyses of variance (ANOVA) for repeated measurements of PTSD, anxiety, and depression; t-test and Cohen's *d* effect size assisted in calculating within and between designs for the different measurements.

Limitations

This study has several limitations, notably the pre-treatment and post-treatment measurement design without a control group and the small sample size. Future research with randomized controlled clinical trials with larger samples with follow-up at six or twelve months when possible to evaluate long-term effects is highly recommended. As previously noted, the authors have no relevant financial interest or affiliation with any commercial interest related to the subjects discussed in the article. This research received no specific grant from any funding agency, commercial or not-for-profit sectors.

Ethical Issues

To ensure ethical treatment, if a woman does not want to participant in the research study, she may decline and still receive the EMDR-IGTP-OTS services (Jarero & Artigas, 2016). To be culturally sensitive, data collectors used the participant's language (Bangla) all interviews and protocol administration. Researchers explained the purpose of the workshop and the research, the inclusion and exclusion criteria, and request their volunteer participation and to sign

an informed consent letter explaining the ethical considerations, as well as ascertain verbal consent. The assistants provided psychoeducation related to trauma, PTSD and EMDR therapy to decrease any possible prejudice against the treatment. I provided the training using ScalingUp EMDR. Once I finish the individual interview, each participant received the dates to attend the two-day workshop. Fulfillment of treatment fidelity and adherence to the protocol by the included assuring the EMDR therapists' strict observance to all steps of the scripted protocol. All DHS procedures, which a nation-specific ethical review board reviewed and approved. IRB approval granted the use of archival data analysis. I confidentially stored all data, which excluded exposure of names or any other identifying information included in the data.

Chapter Summary

Limited researchers provide studies evaluating the efficacy of psychological treatments for PTSD, anxiety, and depression carried out with child brides and subsequent symptoms. However, there is a great need to fill this gap in the literature. This study highlights the need for the provision of mental health services to this vulnerable population. The study results indicate using EMDR-IGTP-OTS, relief-aid organizations and agencies could provide treatment to serve the masses through an intensive, group intervention that can serve many individuals at one time. The results of this research show how EMDR-IGTP-OTS could be an important component of a multidisciplinary approach to reducing or eliminating PTSD, anxiety, and depression symptoms in women who have suffered from marrying at an early age. .

CHAPTER FOUR

RESULTS

This study examines the use of the EMDR-IGTP-OTS (Jarero & Artigas, 2018) modality with a group of Bangladeshi women who have been the victims of exploitation whether through being child brides abused or exploited in marriage, trafficked and/or refugee status. The purpose of this study is to provide the EMDR-IGTP-OTS (Jarero & Artigas, 2018) protocol for approximately 27 women that are currently working with BASHA in Dhaka, Bangladesh to see if this protocol can lower the symptomology of PTSD, anxiety, and depression in the participants. In this chapter, I discuss the results of the paired *t*-test and ANOVA.

Summary of Participants

Participants in this study range in age from early 20's to late '30s. Except for 6 participants, most attended at least some formal education (see table 1). Out of the 27 participants, 15 women cited either suicide attempts or self-harm in their lifetime.

Table 1
Summary of Participants -Compilation of previous studies

Author	Modality	N	Population	Findings	Limitations
Jarero, Givaudan, & Osorio, (2018)	EMDR-IGTP-OTS	Treatment (N = 35) and no-treatment control (N = 30)	Female Patients with Cancer-Related Posttraumatic Stress Disorder Symptoms	EMDR-IGTP-OTS was effective in significantly reducing symptoms of PTSD, anxiety, and depression, with symptoms maintained at 90-day follow-up and with large effect sizes (e.g., $d = 1.80$). A comparison of the treatment and no-treatment control groups showed significantly greater decreases for the treatment group on symptoms of PTSD, anxiety, and depression.	After six administrations, an average of 8% of participants needed additional treatment according to author observation.

Osorio, Pérez, Tirado, Jarero, & Givaudan, (2018)	EMDR-IGTP-OTS	Treatment (N=11) and no-treatment control (N=12)	Twenty-three adolescents and young adults with different types of cancer (breast, leukemia, lymphoma) and PTSD symptoms.	Data analysis by repeated measures ANOVA showed that the EMDR-IGTP-OTS was effective in significantly reducing symptoms of PTSD, anxiety, and depression, with symptoms maintained at 90-day follow-up and with large effect sizes (e.g., $d=1.17$). A comparison of the treatment and no-treatment control groups showed significantly greater decreases for the treatment group on symptoms of PTSD, anxiety, and depression.	Small sample size.
Molero, Jarero, & Givaudan (2019)	EMDR-IGTP-OTS	(N=184)	Male refugees aged 13-17	Data analysis by repeated measures ANOVA showed that the EMDR-IGTP-OTS was effective in reducing PTSD symptoms in the treatment group. A comparison of the treatment and no-treatment control groups showed significantly greater decreases for the treatment group on symptoms of PTSD, anxiety, and depression.	The lack of a formal diagnosis of PTSD in the research population, the 90-days follow-up, and only one gender population (males).
Wong (2018)	EMDR-IGTP-OTS	(N=6)	Female Chinese immigrants, for whom the distress of a divorce had lasted more than the 2 to 3 years typical of divorce recovery.	Scores showed a 65.6% reduction between week 2 and 13 weeks after treatment, with a large effect size of $d = 1.40$, and a significant decrease of $t(4)=4.0$, $p = .016$.	Small sample size, lack of racial and gender diversity, and lack of a control group.
Smyth-Dent, Fitzgerald, & Hagos, (2019)	EMDR-IGTP-OTS	(N=48)	Adolescent male refugees living inside the Shimelba refugee camp in Shiraro, Ethiopia	Statistical analysis showed a significant difference between pre-test ($M=42.63$, $SD=14.69$) and post-test ($M=27.46$, $SD=16.83$); $t(47) = 4.43$, $p<0.0001$ in PTSD symptoms, depression symptoms pre-test ($M=9.31$, $SD=3.71$) and post-test ($M=5.88$, $SD=4.88$); $t(47) = 4.43$, $p<0.0001$, and in anxiety symptoms pre-test ($M=10.65$, $SD=4.03$) and post-test ($M=6.73$, $SD=4.89$); $t(47) = 3.99$, $p<0.001$.	Lack of control group and the small sample size, testing males only

Summary of Findings

Research Question 1: Does EMDR-IGTP-OTS lower the PTSD symptoms of exploited women in Bangladesh according to the PCL-5?

The ANOVA results show that the PCL-5 (Blevins et al., 2015) measures were significantly different between tests, $F(2, 42)=8.45, p=.001$ (see Table 4.1). After conducting t-tests across different measures with Bonferroni correction, we found significant differences between the pre-test and Day-30 test, $p=.005$, as well as between the pre-test and Day-90 test, $p=.005$; however, no significant difference was found between the Day-30 test and Day-90 test, $p>.05$. The effect sizes between the pre-test and Day-30 test and between the pre-test and Day-90 test are 0.61, which is large, while the effect size between the Day-30 test and Day-90 test is 0.14, which is small. Though there is no significant difference found in scores between the Day-30 test and Day-90 test, the significant differences between the pre-test and Day-30 test, $p=.005$, as well as between the pre-test and Day-90 test, $p=.005$ support the original hypothesis that the EMDR-IGTP-OTS lowers PTSD symptoms in participants according to the PCL-5 (Blevins et al., 2015), and the null hypothesis is rejected.

Table 4.1
PCL-5 findings

Source	Sum of Squares	Df	Mean Square	F	p-value
PCL-5	2614.76	2	1307.38	8.45	.001
Error	6497.91	42	154.71		

Research Question 2: Does EMDR-IGTP-OTS lower the anxiety symptoms of participants according to the HADS Anxiety?

The ANOVA results of the HADS-anxiety (Zigmond & Snaith, 1983) scores show the Anxiety measures were significantly different between tests, $F(2, 42)=3.62, p=.035$ (see Table

4.2). After conducting t-tests across different measures with Bonferroni correction, we found no significant differences between the pre-test and Day-30 test as well as between the Day-30 test and Day-90 test, $p > .05$; however, a significant difference was found between the pre-test and Day-90 test, $p = 0.019$. Therefore, I rejected the null hypothesis in favor of the hypothesis that EMDR-IGTP-OTS lowers the anxiety symptoms of participants according to the HADS Anxiety (Zigmond & Snaith, 1983). The effect size between the pre-test and Day-30 test is 0.09, which is small; the effect size between the Day-30 test and Day-90 test is 0.39, which is medium; the effect size between the pre-test and Day-90 test is 0.66, which is a substantial finding.

Table 4.2
HADS Anxiety Findings

Source	Sum of Squares	df	Mean Square	F	p-value
Anxiety	127.39	2	63.70	3.62	.035
Error	739.27	42	17.60		

Research Question 3: Does EMDR-IGTP-OTS lower the depression symptoms of participants according to the HADS Depression?

The results show that the HADS-Depression (Zigmond & Snaith, 1983) measures were significantly different between tests, $F(1.54, 32.34) = 0.96$, $p > .05$ (see Table 4.3). Note that since we violate the assumption of sphericity i.e., the variances of the differences between measures, we use Greenhouse-Geisser correction for F tests. After conducting t-tests across different measures with Bonferroni correction, we found no significant differences, $p > .05$, therefore we accept the null hypothesis. The effect sizes for two comparisons are small: 0.15 between the pre-test and Day-30 test as well as 0.12 between the Day-30 test and Day-90 test; the effect size between the pre-test and Day-90 test is 0.41.

Table 4.3
HADS Depression Findings

Source	Sum of Squares	df	Mean Square	F	p-value
Depression	29.58	1.54	19.20	0.96	.372
Error	645.09	32.34	19.95		

Research Question 4: Do the symptoms continue to decrease over time according to the scores on the PCL-5, HADS-Anxiety, and HADS-Depression at 90-day posttest?

In comparison between the pre-test and Day-30 tests, we saw decreasing patterns in general (see Pairs 1, 2, and 3). The decreasing patterns continued up to Day 90 (see Pairs 4, 5, and 6). After conducting paired *t*-tests, we found significant differences for Pairs 3, 5, and 6; the mean of PCL-5 (Blevins et al., 2015) in the pre-test was significantly different from that in the Day-30 test, $p = .001$; the mean of HADS-Anxiety (Zigmond & Snaith, 1983) in the pre-test significantly differed from that in the Day-90 test, $p = .006$; the mean of PCL-5 (Blevins et al., 2015) in the pre-test was significantly different from that in the Day-90 test, $p = .001$. Due to these significant findings, we reject the null hypothesis. Note that due to missing values in measures, the sample sizes for each *t*-test were not the same (see Table 4.4).

Table 4.4
Paired T-tests between Pre and Post-test Scores

Pair	Measure	Pre-test mean	Post-test mean	Mean dif. (Post-Pre)	Std. Error	t-score	p-value	N
1	HADS Day30 Dep.	9.96	8.88	-1.08	1.24	-0.88	.391	24
2	HADS Day30 Anxiety	12.00	11.00	-1.00	1.31	-0.76	.453	24
3	PCL-5 Day30	41.75	28.96	-12.79	3.24	-3.94	.001	24
4	HADS Day90 Dep.	10.00	8.48	-1.52	0.77	-1.98	.061	23

5	HADS	11.91	8.83	-3.09	1.01	-3.07	.006	23
Day90	Anxiety							
6	PCL-5	42.96	28.70	-14.26	3.86	-3.70	.001	23
Day90								

Chapter Summary

The main objective of this study is to evaluate the effectiveness of the EMDR-integrative group treatment protocol for ongoing traumatic stress (EMDR-IGTP-OTS; Jarero & Artigas, 2016) in reducing posttraumatic stress disorder (PTSD), depression, and anxiety symptoms in women who have experienced exploitation and early marriage. In this study, four research questions were proposed: Does EMDR-IGTP-OTS lower the PTSD symptoms of exploited women in Bangladesh according to the PCL-5 (Blevins et al., 2015) (RQ1)?; Does EMDR-IGTP-OTS lower the anxiety symptoms of participants according to the HADS-Anxiety (Zigmond & Snaith, 1983) (RQ2)?; Does EMDR-IGTP-OTS lower the depression symptoms of participants according to the HADS-Depression (Zigmond & Snaith, 1983) (RQ3)?; Do the symptoms continue to decrease over time according to the scores on the PCL-5 (Blevins et al., 2015), HADS-Anxiety, and HADS-Depression (Zigmond & Snaith, 1983) at 90-day posttest (RQ4)?

The results of this study show the EMDR-IGTP-OTS does significantly lower the PTSD and anxiety symptoms in participants. The mean of PCL-5 (Blevins et al., 2015) in the pre-test was significantly different from that in the Day-30 test, $p = .001$; the mean of HADS-Anxiety (Zigmond & Snaith, 1983) in the pre-test significantly differed from that in the Day-90 test, $p = .006$; and the mean of PCL-5 (Blevins et al., 2015) in the pre-test was significantly different from that in the Day-90 test, $p = .001$. These findings support the hypotheses posited in the 3 out

of 4 research questions, leading the author to reject the null in all but one research hypothesis. In Chapter 5, I offer an in-depth discussion of this subject.

CHAPTER FIVE

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

This study implemented a pilot project investigating the effectiveness of providing the EMDR Integrative Group Treatment Protocol adapted for Ongoing Traumatic Stress (EMDR-IGTP-OTS) to females in Dhaka, Bangladesh (and the surrounding areas) who have PTSD, anxiety and depression symptoms through experiencing early marriage and sexual exploitation. The purpose of this study is to analyze the results of a study using the EMDR-IGTP-OTS (Jarero & Artigas, 2018) protocol on 27 women that are currently working with BASHA in Dhaka, Bangladesh to see if this protocol can lower the symptomology of PTSD, anxiety, and depression in the participants according to the PCL-5 (Blevins et al., 2015), HADS-Anxiety (Zigmond & Snaith, 1983), and HADS-Depression (Zigmond & Snaith, 1983) measures. This chapter discusses the findings of the data analysis, the limitations of the study as well as future implications for research, the field of mental health, and the field of counselor education.

Summary of Findings

Summary of Participants

The participants lived in a safe-house environment through the BASHA program in Dhaka, Bangladesh, and the surrounding areas. Participants in this study were female and ranged in age from the early '20s to the late '30s. These women have faced exploitation, abuse, and abandonment by spouses and parents. They reported they suffer from PTSD, anxiety, and depression symptoms due to these horrific experiences.

Summary of Research Questions

To help this vulnerable population, I proposed four research questions:

RQ1: Does EMDR-IGTP-OTS lower the PTSD symptoms of exploited women in Bangladesh according to the PCL-5?

RQ2: Does EMDR-IGTP-OTS lower the anxiety symptoms of participants according to the HADS Anxiety?

RQ3: Does EMDR-IGTP-OTS lower the depression symptoms of participants according to the HADS Depression?

RQ4: Do the symptoms continue to decrease over time according to the scores on the PCL-5, HADS-Anxiety, and HADS-Depression at 90-day posttest?

Discussion

The first research question (RQ1) explored if EMDR-IGTP-OTS lowered the PTSD symptoms of exploited women in Bangladesh according to the PCL-5 (Blevins et al., 2015). The analyzed data showed a significant difference between the pre-test and day-30 test ($p=.005$) as well as between the pre-test and day-90 test ($p=.005$). This shows the EMDR-IGTP-OTS protocol was effective in lowering the PTSD symptoms of participants. It is interesting to note there was no significant difference between day-30 and day-90, showing PTSD symptoms did not decrease over time. It is difficult to understand the reason for this finding, however, there may be a need for further treatment to lower PTSD symptoms over time. For example, a study by Jarero, Givaudan, and Osorio (2018) on EMDR-IGTP-OTS showed 8% of participants required additional treatment after the study was complete, according to SUDS scores. Additionally, there are no existing studies to my knowledge studying the effects of combined group EMDR with

individual EMDR follow-up. Results could be due to the short nature of EMDR-IGTP-OTS treatment.

These results supported the findings of several key studies highlighted in Chapter Two. Two studies (Jarero et al., 2018; Osorio, Pérez, Tirado, Jarero, & Givaudan, 2018) found EMDR-IGTP-OTS significantly reduced PTSD symptoms, with symptoms maintained at 90-day follow-up and with large effect sizes. This held for both in adolescents and female patients with PTSD symptoms related to cancer diagnoses. Two other key studies showed a statistically significant reduction in PTSD symptoms in adolescent male refugees (Molero, Jarero, & Givaudan, 2019; Smyth-Dent et al., 2019). The current study adds to the body of literature supporting the use of EMDR-IGTP-OTS in the reduction of PTSD symptomology.

Research question two (RQ2) posited EMDR-IGTP-OTS would lower the anxiety symptoms of participants according to the HADS-Anxiety (Jarero et al., 2018; Osorio, Pérez, Tirado, Jarero, & Givaudan, 2018; Smyth-Dent et al., 2019; Zigmond & Snaith, 1983). Though there was no significant difference between the pre-test and day-30 test as well as between the day-30 test and day-90 test ($p > .05$), there was a significant difference between the pre-test and day-90 test ($p = 0.019$), indicating the symptoms decreased over time following treatment. Though not definitive, it is possible that anxiety symptoms naturally lowered after PTSD symptoms declined. Though there is evidence to suggest whether individual EMDR is effective in treating anxiety diagnoses (Faretta, & Dal Farra, 2019; Yunitri et al., 2020), I was unable to find existing studies examining the effects of group EMDR on anxiety-specific diagnoses. More research can determine if results of EMDR-IGTP-OTS directly reduce anxiety or if it is merely a byproduct of the reduction in PTSD.

The outcomes support previous findings in three key studies (Jarero, Givaudan, & Osorio, 2018; Osorio, Pérez, Tirado, Jarero, & Givaudan, 2018; Smyth-Dent et al., 2019). Previous researchers suggested EMDR-IGTP-OTS can lower anxiety symptoms according to the HADS-Anxiety (Zigmond & Snaith, 1983), with symptoms maintained at 90-day follow-up, with large effect sizes, in adolescents and female patients with anxiety symptoms related to cancer diagnoses and male adolescent refugees (Jarero, Givaudan, & Osorio, 2018; Osorio, Pérez, Tirado, Jarero, & Givaudan, 2018; Smyth-Dent et al., 2019). The significant difference between the pre-test and day-90 test ($p=0.019$) indicated this treatment modality is effective in lowering anxiety symptoms according to the HADS-Anxiety, supporting the hypothesis of RQ2. The third research question (RQ3) asked if EMDR-IGTP-OTS would lower the depression symptoms of participants according to the HADS-Depression (Zigmond & Snaith, 1983). Analysis of the data showed no significant changes over time; therefore, this modality did not demonstrate lower depressive symptoms effectively according to the HADS-Depression (Zigmond & Snaith, 1983). Wood and Ricketts (2013) explained from a meta-analytic review of individual EMDR and depression (PTSD studies reportedly revealed EMDR significantly reduced comorbid depression along with PTSD symptoms. Minimal additional studies exist evaluating the efficacy of EMDR in improving depressive symptoms (Malandrone, Carletto, Hase, Hofmann, & Ostacoli, 2019). However, Ostacoli et al. (2018) found when directly compared with CBT, EMDR seemed to be comparable or slightly superior, which scholars considered the gold standard intervention for the treatment of depression. Though these results are hopeful for the treatment of depression, I was unable to locate studies on group EMDR and depression. Though this literature focused on individual EMDR and depression, it offers a clue as to how group EMDR treatments need more

research to determine if results are directly responsible for the reduction in depression or if it is merely a byproduct of the reduction in PTSD.

These findings do not support the hypothesis of the third research question, nor do they support the findings of Jarero, Givaudan, and Osorio (2018) and Osorio, Pérez, Tirado, Jarero, and Givaudan (2018), which demonstrated efficacy using EMDR-IGTP-OTS in significantly reducing depression with symptoms maintained at 90-day follow-up both in adolescents and in female patients with depressive symptoms related to cancer diagnoses. Although previous studies demonstrated EMDR-IGTP-OTS does lower symptoms of depression, I accepted the null hypothesis and rejected the hypothesis expressed in RQ3.

The fourth research question (RQ4) investigated whether after the use of the EMDR-IGTP-OTS, the symptoms continue to decrease over time according to the scores on the PCL-5, HADS-Anxiety, and HADS-Depression (Blevins et al., 2015; Zigmond & Snaith, 1983). The data analysis showed at 90-day posttest the mean of PCL-5 in the pre-test was significantly different from that in the day-30 test ($p = .001$); the mean of HADS-Anxiety (Blevins et al., 2015; Zigmond & Snaith, 1983) in the pre-test significantly differed from that in the day-90 test ($p = .006$); and the mean of PCL-5 in the pre-test significantly differed from the day-90 test, ($p = .001$), revealing the symptoms do decrease beyond the period of treatment (Blevins et al., 2015). Research conducted by Jarero, Givaudan, and Osorio (2018), Osorio, Pérez, Tirado, Jarero, and Givaudan (2018), Smyth-Dent et al. (2019) and Wong (2018), showed EMDR-IGTP-OTS treatment continues to lower symptoms of PTSD, anxiety, and depression over time. In this present study, the treatment continued to reduce symptoms, even up to 90 days post-treatment, which supported the findings of previous studies as well as supporting RQ4.

According to the adaptive information processing (AIP), theoretical model participants experience an extended period of multiple traumatic events as one continuous recent traumatic event (Hase et al., 2017; Jarero, Artigas, & Luber, 2019; Shapiro, 2018). This fluid narrative revealed a continuum, often along with the themes of safety, responsibility, and choice. Healthy adaptive processing occurs when forged associations of previously stored material, resulted in learning relief of emotional distress, and the availability of the material for future use (Hase et al., 2017). I believe the participants experienced adaptive processing as a result of treatment, which is why there was a decrease in PTSD and anxiety symptoms over time.

Limitations

The most notable limitation of this study was the lack of a control group. In contrast, several relevant studies done on this treatment modality included a control group, which strengthened the results (Jarero, Givaudan, & Osorio, 2018; Molero et al., 2019; Osorio, Pérez, Tirado, Jarero, & Givaudan, 2018). It was also based on a small sample size, all of which were female and Bangladeshi. Missing from the EMDR-IGTP-OTS literature was a comparison study on the number of sessions and the protocol required to effectively treat PTSD, anxiety, and depression symptoms. For example, in one EMDR-IGTP-OTS study, 8% of participants required additional treatment (Jarero et al., 2018). Another limitation was participants lived in a safe-house environment, away from the traumatic situation, which could influence their responses and ultimately the results. It was unclear whether the results accurately represent participants' experiences since they escaped their abusive situation. I have no relevant financial interest or affiliation with any commercial interest with the participants and did not receive grants or support from any funding agency, commercial or not-for-profit organizations.

Recommendations for Future Research

Future research should have a larger sample size to increase transferability to other populations. Specifically, a randomized controlled clinical trial with larger samples and follow-up at six or twelve months would allow for evaluating the sustainability of symptoms. I would also recommend the inclusion of this modality on individuals who live in different parts of the world and come from different nationalities. The practice of early marriage in many parts of the world is important to verify the efficacy of this treatment modality with specific cultures and sub-cultures, including males forced to marry before the age of 18.

Researchers recommended further researchers compare different numbers of sessions received and various lengths of treatment to determine, which protocol is the most effective. There is a need for further research to determine if EMDR-IGTP-OTS is effective when combined with other treatment modalities, such as individual EMDR, and/or the use of pharmacology. The outcomes would add to the literature as well as filling a current gap, which documents results when combining EMDR-IGTP-OTS with other treatments. Individual EMDR demonstrates efficacy when used in combination with other treatment modalities, and this may also be the case with group EMDR, although, to date, no salient literature exists. With negative effects of child marriage including spouse violence and controlling behaviors suicidal thoughts and attempts, along with mental health issues, further research could reveal additional interventions to help this population of women (Gage, 2013; Le Strat, Dubertret, & Le Foll, 2017; Nasrullah et al., 2014).

Implications

For Counselors

to the outcomes of this study indicate how practitioners can consider using the EMDR-IGTP-OTS globally, with large groups of women such as those who faced exploitation and early marriage. EMDR-IGTP-OTS is a suggested treatment modality for use with clients who have similar experiences and suffer from PTSD and anxiety symptoms. Clients who have a PTSD diagnosis can potentially use EMDR-IGTP-OTS to ameliorate PTSD symptomology. It is important to note counselors must be EMDR trained to appropriately employ the various protocols of the EMDR-IGTP modality. Counselors can obtain training by attending a seminar, either online or in-person, to be qualified to use the modality. ScalingUP EMDR provides many trainings every year at various locations all over the country. Learning the interventions and protocols can enhance the skill sets of clinicians who work with exploited women and experienced traumatic early marriage, as well as those with backgrounds creating ongoing traumatic stress in other circumstances.

For Counselor Educators

Previous researchers documented the effectiveness of EMDR-IGTP-OTS suggesting its value for inclusion in counselor education programs. They recommend studying EMDR-IGTP-OTS as part of a group and/or trauma curricula as students are also learning about how to treat PTSD (included with the AIP model and EMDR). Counselor education students should be encouraged to include this modality in their research papers, to learn about the AIP model as it relates to group treatment, and to consider the usefulness of EMDR-IGTP-OTS in the work of humanitarian aid, relief aid, along with overseas treatment and research. ScalingUP EMDR accepts masters' level and Ph.D. level counselor educators as research interns, and students

should consider taking advantage of this program as they complete their programs. From an advocacy standpoint, encouraging counselor educators to research and present the findings of this modality in various contexts and with multiple populations to advocate for funding and research grants would ultimately benefit the target population.

Chapter Summary

The purpose of this study was to analyze the raw data of an existing study using the EMDR-IGTP-OTS (Jarero & Artigas, 2018) protocol on 27 women in Dhaka, Bangladesh. I intended to determine whether the protocol can lower the symptomology of PTSD, anxiety, and depression in participants. Included in chapter five is a discussion of the findings of the data analysis through addressing each research question. I also describe the limitations of the study as well as future implications for research, along with highlighting the implications for the field of mental health and the field of counselor education.

Study Summary

In conducting this study, the intention was to implement a pilot project investigating the effectiveness of providing the EMDR Integrative Group Treatment Protocol adapted for Ongoing Traumatic Stress (EMDR- IGTP-OTS) to females in Dhaka, Bangladesh (and the surrounding areas) who have survived early marriage and sexual exploitation. Minimal research exists on the treatment of the mental health of these women. They may suffer from the symptoms of PTSD, anxiety, and depressive disorders with very little research to show what treatment or resources would be helpful for them. Not only are the women exploited in abusive child marriages and trafficking, but they also continue to suffer based on the lack of investigative studies on potentially beneficial treatments.

The problem therein lies in the lack of research and treatment options for a large and underserved population. Jarero and Artigas (2018) developed EMDR-IGTP-OTS modality and suggested it as an effective intervention to help this vulnerable group. I analyzed data from an existing study (conducted by ScalingUP EMDR) to answer the following research questions:

RQ1: Does EMDR-IGTP-OTS lower the PTSD symptoms of exploited women in Bangladesh according to the PCL-5?

RQ2: Does EMDR-IGTP-OTS lower the anxiety symptoms of participants according to the HADS Anxiety?

RQ3: Does EMDR-IGTP-OTS lower the depression symptoms of participants according to the HADS Depression?

RQ4: Do the symptoms continue to decrease over time according to the scores on the PCL-5, HADS-Anxiety, and HADS-Depression at 90-day posttest?

Results showed PTSD symptoms between the pre-test and Day-30 test, $p=.005$, as well as between the pre-test and day-90 test, $p=.005$ were significantly lowered (effect size 0.61) according to the PCL-5 (Blevins et al., 2015), they found a significant difference in anxiety between the pre-test and Day-90 test, $p=0.019$ (effect size 0.66) according to HADS-Anxiety and symptoms lowered over time (Zigmond & Snaith, 1983). The findings of this study affect how EMDR-IGTP-OTS can serve not only women in Bangladesh and women in similar cultures/geographical regions but women all over the world experiencing exploitation in the course of child marriage.

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Appendix A

Demographic Questionnaire

What is your full name?

What is your age?

What is the highest level of education reached?

Are you taking any medications?

Do you have a history of substance abuse? How many years ago?

Do you have a history of suicide attempts? How many years ago?

Do you have a history of self-harm? How many years ago?

Do you have a history of assaultive behavior? How many years ago?