THE DEVELOPMENT AND THE EFFECTIVENESS OF TRAUMA FOCUSED SCHEMA THERAPY (Tf-ST) ON MALAYSIAN FEMALE YOUNG ADULTS WITH SYMPTOMS OF POST-TRAUMATIC STRESS DISORDER (PTSD)

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by

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LIST OF ABBREVIATIONS

ANOVA	Analysis of Variance
APA	American Psychological Association
BPD	Borderline Personality Disorder
CBT	Cognitive Behavioural Therapy
DSM	Diagnostic and Statistical Manual of Mental Disorders
EMDR	Eye-Movement Desensitisation and Reprocessing Therapy
EMS	Early Maladaptive Schema
GAD	Generalised Anxiety Disorder
OCD	Obsessive Compulsive Disorder
PCL-5	PTSD Checklist for DSM-5
PTSD	Post-traumatic Stress Disorder
RCT	Randomised-controlled Trial
SMI	Schema Modes Inventory
Tf-CBT	Trauma-Focused Cognitive Behavioural Therapy
Tf-ST	Trauma-Focused Schema Therapy
YSQ	Young Schema Questionnaire

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PEMBANGUNAN DAN KEBERKESANAN TERAPI SKEMA BERFOKUS TRAUMA (Tf-ST) TERHADAP WANITA MUDA DEWASA MALAYSIA YANG MEMPUNYAI SIMPTOM KECELARUAN TEKANAN PASCA TRAUMATIK

ABSTRAK

Kini, psikoterapi untuk populasi yang mengalami trauma sangat terhad. Model terapi skema telah dihipotesiskan sebagai psikoterapi alternatif baharu yang berpotensi untuk merawat trauma. Walau bagaimanapun, ia mempunyai kelemahan dalam menjelaskan teori dan teknik psikoterapi yang berfokuskan trauma. Dalam fasa pertama kajian, kelemahan terapi skema telah ditangani melalui integrasi dengan psikopendidikan trauma, teknik psikodinamik, dan terapi seni. Terapi skema yang baru diintegrasikan dinamakan 'terapi skema fokus trauma' (Tf-ST). Dalam fasa kedua, kajian ini menjalankan percubaan terkawal rawak (RCT) untuk menyiasat keberkesanan Tf-ST yang dibangunkan dalam fasa satu, dengan wanita dewasa muda di Malaysia yang mengalami trauma berulang dan berterusan. Keberkesanan Tf-ST dibandingkan dengan Terapi Tingkah Laku Kognitif (Tf-CBT) yang berfokuskan trauma. Seramai 15 orang peserta dalam setiap kumpulan menerima 16 sesi intervensi (satu jam setiap sesi) dalam tempoh 4 bulan. Simptom gangguan stres pasca trauma (PTSD), skor skema maladaptif awal (EMS), dan skor mod skema peserta diukur semasa pra-ujian, selepas ujian, dan ujian susulan 3 bulan. Temu bual kualitatif separa berstruktur juga dilaksanakan dengan peserta daripada kedua-dua kumpulan Tf-ST dan Tf-CBT untuk mendapat pandangan yang lebih mendalam tentang perbezaan, keberkesanan dan ketidakberkesanan kedua-dua psikoterapi. Dalam kedua-dua analisis kuantitatif dan kualitatif, Tf-ST menunjukkan keberkesanan dalam

mengurangkan simptom PTSD, skor EMS, dan skor mod skema yang lebih tinggi berbanding dengan Tf-CBT. Hasil kajian ini menyokong bahawa terapi baharu yang dikembangkan, iaitu Tf-SF, merupakan pilihan yang berkesan dalam merawat populasi yang mengalami trauma berulang dan berterusan di Malaysia. Oleh itu, kajian ini menggalakkan bidang klinikal dan penyelidikan untuk terus menambah baik dan membangunkan psikoterapi alternatif atau yang lebih maju, daripada memfokuskan pada intervensi trauma sedia ada seperti Tf-CBT. Hal ini akan mengubah genangan bidang psikoterapi di Malaysia. Salah satu cara untuk menginovasi psikoterapi baharu adalah melalui integrasi. Dengan integrasi, kelemahan model psikoterapi akan direflek dan diteliti, seterusnya diatasi dengan teknik lain.

THE DEVELOPMENT AND THE EFFECTIVENESS OF TRAUMA FOCUSED SCHEMA THERAPY (Tf-ST) ON MALAYSIAN FEMALE YOUNG ADULTS WITH SYMPTOMS OF POST-TRAUMATIC STRESS DISORDER (PTSD)

ABSTRACT

Currently, there are very limited forms of psychotherapies for the traumatised population. The schema therapy model was hypothesised to be a potential new viable alternative for trauma-focused psychotherapy. However, it does have its limitations in addressing trauma. In phase one of the study, these limitations were addressed through assimilative integrating trauma psychoeducation, psychodynamic techniques, and art therapy. This newly integrated schema therapy is named 'trauma-focused schema therapy' (Tf-ST). In phase two, the present study conducted an interventional randomised controlled trial (RCT) to investigate the effectiveness of the Tf-ST developed in phase one, with female young adults in Malaysia who experienced repeated and continuous trauma. The effectiveness of the Tf-ST is compared with trauma-focused Cognitive Behavioural Therapy (Tf-CBT). There were 15 participants in each group, which received 16 sessions of one-hour assigned therapy across 4 months. Their post-traumatic stress disorder (PTSD) symptoms, early maladaptive schema (EMS) and schema modes scores were measured during the pre-test, post-test and 3-month follow-up test. The semi-structured qualitative interview was carried out with the participants from both Tf-ST and Tf-CBT groups to gain an in-depth insight into the differences, effectiveness and ineffectiveness of both psychotherapies. In both quantitative and qualitative analyses, Tf-ST has shown superior effectiveness than Tf-CBT, both short and long-term effectiveness towards the reduction of PTSD symptoms,

EMS and schema modes scores. The results support that the newly developed Tf-ST is a viable option for repeated and continuous trauma intervention in Malaysia. Thus, the present study encourages the clinical and research field to keep improving and developing alternative or more advanced psychotherapy, rather than fixating on previously established trauma interventions such as Tf-CBT. This would push forward the stagnation of the current psychotherapeutic field in Malaysia. One way to innovate new psychotherapy would be through integration. With integration, the limitations of the psychotherapeutic model would be reflected and examined, and then resolved with other techniques.

CHAPTER 1

INTRODUCTION

1.1 Introduction

1.1.1 Trauma and Post-traumatic Stress Disorder

Trauma is a distressing event that contributes to an overwhelming amount of stress that exceeds one's ability and resources to cope, and the individual is unable to integrate the emotions involved with the traumatic experience (Forbes et al., 2020). Traumatic events are reported to severely and significantly impact individuals' emotions and mental well-being (Forbes et al., 2020).

Originally, it was believed that traumatic events elicit mainly fear-based emotions, such as phobia (Langkaas et al., 2017). Nevertheless, more studies have discovered that traumatic events also elicit non-fear-based emotions such as anger, inferiority, shame, sadness and guilt. Often, it results in more severe and detrimental impacts, and it is harder to be treated (Langkaas et al., 2017).

In addition, traumatic events severely impact an individual's mental health (Hyland et al., 2019). One of the most common mental health disorders resulting from traumatic experiences is Post-Traumatic Stress Disorder (PTSD; Hyland et al., 2019). PTSD is an anxiety disorder that develops after individuals witness or encounter life-threatening or traumatic events, which could then lead to intense fear, helplessness, or horror (American Psychiatric Association, 2013).

PTSD symptoms are found to be severe and able to create significant distress and impairment in individuals' daily functioning and well-being (Hyland et al., 2019). Individuals with PTSD also have a high prevalence of self-destructive behaviours such as suicidal and self-harm behaviours, which might be extremely dangerous (Hyland et

al., 2019). Thus, PTSD is considered a 'critical illness', and individuals suffering from PTSD often require specialised trauma-focused psychological interventions (Hyland et al., 2019). Additionally, multiple studies have reported that there is a high prevalence of PTSD in Malaysia (Din et al., 2010; Ghazali et al., 2013; Ghazali et al., 2017), suggesting that there is a high necessity to study PTSD in both clinical and research fields in Malaysia.

1.1.2 Trauma-focused Interventions

The specialised psychological interventions for individuals who have experienced traumatic events and exhibited PTSD symptoms are mainly Trauma-focused Cognitive Behavioural Therapy (Tf-CBT) and Eye Movement Desensitization and Reprocessing (EMDR) (de Roos et al., 2011). Tf-CBT is a version of CBT that works specifically on PTSD symptoms, such as replacing the maladaptive trauma-related cognitions and trauma-related behaviours with more adaptive cognitions and behaviours. It focuses mainly on psychoeducation, relaxation skills, cognitive coping strategies such as cognitive restructuring, and exposure therapy (Cohen et al., 2012). EMDR, on the other hand, involves the client in reliving the worst moment of a traumatic event from the very beginning, as vividly as possible, while paying attention to bilateral stimulations such as left-right eye movements, finger tapping or a bilateral sound. The client will engage in this dual-task until their anxiety has decreased (Shapiro, 2017). Nevertheless, the mechanism behind EMDR and its bilateral stimulations is unclear and has not received sufficient scientific evidence support (Wadji et al., 2022). Thus, the present study focuses on Tf-CBT as it is more evidence-

based and has more theoretical support as compared to EMDR (Mavranezouli et al., 2020).

Numerous studies have been conducted with Tf-CBT, and they have reported strong evidence support. Bisson et al. (2007) conducted a meta-analysis on 38 randomised-controlled trials (RCT) on Tf-CBT and reported that Tf-CBT is significantly effective in reducing PTSD symptoms, as compared to waiting-list, usual care and other trauma interventions such as EMDR. Hoppen et al. (2022) conducted a meta-analysis of over 18,901 participants. The study reported that Tf-CBT is effective in reducing PTSD symptoms as compared to other non-trauma-focused psychotherapies. Additionally, Tf-CBT has good long-term efficacy as reported in the meta-analysis. Thus, Tf-CBT is the first-line psychological treatment and evidence-based recommendation to be administered for trauma and PTSD (Hoppen et al., 2022).

Although Tf-CBT is popular and highly used, it has also been criticised for its limitations and potential issues. Tf-CBT has been highly criticised on grounds of ethical issues, where the use of exposure techniques has been found to bring more harm and distress (Marker et al., 2019). Tf-CBT has also been evaluated for its effectiveness where it was reported to be effective in reducing fear-based emotions from trauma, but not effective for non-fear-based emotions such as anger and shame (Langkaas et al., 2017). Lastly, Tf-CBT lacks emphasis on the therapeutic relationship between the client and the psychotherapist (Easterbrook & Meehan, 2017). These limitations will be further explored in chapter two, the literature review.

1.1.3 Schema Therapy

On the other hand, schema therapy is an integrative psychotherapy which combined different aspects of cognitive-behavioural, experiential, interpersonal and psychoanalytic therapies (Young et al., 2003). It has been credited due to its complexity and integrative approach, and it was stated as combining the best aspects of different psychotherapeutic approaches (Roediger et al., 2018).

Young (1999) originally designed schema therapy as a psychological treatment for borderline personality disorder (BPD). Research has found schema therapy to be very effective for BPD and various other personality disorders (Roediger et al., 2018). When it comes to the effectiveness of schema therapy with other mental health disorders, although there are very limited studies in the field, some recent research has found schema therapy to be effective for anxiety disorders, depressive disorders, obsessive-compulsivity disorder (Hawke & Provencher, 2011; McIntosh et al., 2016). There was only one controlled trial which investigated schema therapy with the PTSD population (Cockram et al., 2010). Schema therapy was reported to present high effectiveness in reducing PTSD symptoms, and it is significantly more effective when compared to Tf-CBT.

Boterhoven de Haan et al. (2019) identified a few features of schema therapy which make it a viable alternative as trauma-focused psychotherapy. Firstly, schema therapy has a strong emphasis on the therapeutic relationship, which is different from Tf-CBT (Young et al., 2003). Secondly, schema therapy has also focused on experiential techniques, which is a more effective and ethical alternative than exposure techniques (Masley et al., 2012). For instance, experiential techniques are reported to be more effective than exposure techniques in non-fear-based trauma (Masley et al.,

2012). In addition, there are two very important and crucial theoretical underpinnings in schema therapy that are early maladaptive schema (EMS) and schema modes (Young et al., 2003). Boterhoven de Haan et al. (2019) suggested that both EMS and schema modes are highly relevant and applicable when working with the traumatised population.

1.1.3.1 Early Maladaptive Schema (EMS)

Based on schema therapy, it is suggested that psychological disorders are developed and maintained by EMS (Young et al., 2003). Early maladaptive schema (EMS) is defined as the maladaptive and pervasive belief or theme about oneself, one's relationship with others, and the world. EMS is established and developed through abusive relationships and traumatic experiences from significant people throughout one's lifetime, for instance, parents or caregivers, romantic partners, peers and friends (Young et al., 2003). This EMS or core belief tends to be unconscious and unaware by the person; nevertheless, it contributes to a distorted view of different events or situations in their lives, affecting the individual's feelings, behaviours, motivation and thoughts (Young et al., 2003).

For example, an individual who was abused might develop the EMS of 'mistrust/abuse' from their traumatic experience. The individual will subconsciously establish a distorted view where they believe they will always be abused, and others will always abuse them. Hence, when individual encounters a new relationship in future, they might instantly assume and believe that they will be abused and bullied, even without any evidence. Thus, affecting their feelings, behaviours, motivations and thoughts about the new relationship.

Currently, there are 18 types of EMS that can be categorised into five domains. However, from the literature review of the present study, there are nine types of EMS that are related to traumatic experiences and PTSD. These are the EMS of abandonment/instability, mistrust/abuse, emotional deprivation, defectiveness/shame, social isolation/ alienation, dependence/incompetence, vulnerability to harm or illness, enmeshment/undeveloped self and failure. These nine types of EMS will be referred to as 'trauma-related EMS' in the present study.

1.1.3.2 Schema Modes

Schema modes are assumed to be predominant emotional states and coping responses that occur when EMS is triggered, similar to the concept of sub-personality/characters or defence mechanisms in psychoanalytic theory (Young et al., 2003). It is theorised that when EMS is activated by a trigger, it evokes intense emotions as well as behaviours such as coping strategies (surrender, avoidance, and overcompensation) in attempting to cope and defend against the trigger (Johnston et al., 2009). These states can change rapidly and can be functional or dysfunctional. As schema modes are in the unconscious, the individual is unaware of where and when these schema modes activate or shift (Young et al., 2003).

The concept of EMS and schema modes could be understood by the cognitive triangle theory, where cognitions, behaviours and feelings are all interrelated (Duan et al., 2022). The EMS works as the cognitions or beliefs one has, while the behaviours and feelings resulting from the cognitions are known as the schema modes (Lobbestael et al., 2008). Thus, this suggests that EMS are trait-like entities, while schema modes are the state variants or 'reactions' of EMS (Lobbestael et al., 2008).

An example of schema modes is when an individual might have the EMS of mistrust/abuse (perceive that they will be hurt, abused, and manipulated by others). When this EMS is triggered, it brings up intense emotions such as fear, sadness and inferiority. The individual then engages in a surrendering coping strategy. This emotional-behavioural state involves giving in to painful feelings of inferiority and sadness, known as the vulnerable child schema mode (Lobbestael et al., 2008). Hence, this schema mode is characterised as the emotions and behaviours, resulting from the belief (EMS) of mistrust/abuse.

Currently, there are 14 types of schema modes, and four types of schema modes (detached protector, punitive parent, vulnerable child and angry child schema modes) are related to traumatic experiences and PTSD. These four types of schema modes will be referred to as the 'trauma-related schema modes' in the present study.

1.1.4 Limitations of Schema Therapy

Nevertheless, schema therapy has its own limitations that might be a barrier when applied as trauma-focused psychotherapy. Schema therapy is proposed for BPD rather than PTSD; hence many of its techniques are not specifically focusing on trauma. The original schema therapy is lengthy, whereby the psychotherapist goes through all 18 EMS and 14 schema modes. As mentioned by Hyland et al. (2019), PTSD creates significant distress and impairment in various areas of functioning, thus it requires a relatively quicker and shorter-term treatment. With this, the current schema therapy poses a problem with its long-term approach. Besides, the experiential techniques used in schema therapy when dealing with all the EMS or the schema modes are also criticised for being similar, indifferent and lack of flexibility (Padmanabhanunni &

Edwards, 2012). The experiential techniques in schema therapy were also criticised to be unsuitable for the Asian populations due to their confrontative nature (Mao et al., 2022). Additionally, the instructions on providing an effective therapeutic relationship in schema therapy are very general and not specific (Laconi et al., 2014).

With this, the present study aimed to improve the current schema therapy and develop it into a new alternative for trauma-focused psychotherapy and compared its effectiveness with the current Tf-CBT.

1.2 Statement of the Problem and Research Gaps

The main psychotherapies currently available for the traumatised population are Tf-CBT and EMDR. Thus, there are very limited options for trauma-focused psychotherapies in the field, and both options have their own limitations. However, only a small amount of research has focused on developing and innovating new trauma-focused psychotherapy (Benish et al., 2008). Currently, most research has only focused on implementing existing psychotherapies without further evaluation and improvement (Benish et al., 2008). Kazlauskas (2017) reviewed the challenges and gaps in trauma work and supported that there is a limited new option in trauma-focused psychotherapies.

On the other hand, Boterhoven de Haan et al. (2019) hypothesised the potential application of schema therapy as trauma-focused psychotherapy. However, this has not been further explored in the field, as currently there is only one controlled trial which has investigated schema therapy with a PTSD population (Cockram et al., 2010). Studies have also reported that the research development of schema therapy is insufficient and underdeveloped (Boterhoven de Haan et al., 2019). Although there are studies which have supported the effectiveness of schema therapy with BPD; however, the application of schema therapy to other mental health disorders is unclear (Taylor et al., 2017). It should also be noted that there is a lack of studies comparing schema therapy with other types of psychotherapies to demonstrate its effectiveness (Taylor et al., 2017). Considering that schema therapy is a BPD-focused therapy, it is not safe to assume its effectiveness on other disorders without sufficient empirical evidence.

The awareness and development of schema therapy in both the clinical and research field are still very limited in Asia, especially in Malaysia. According to the

International Society of Schema Therapy (ISST, n.d.), the number of training and accredited schema therapists in Malaysia, or Asia, is still very limited. Research showed that in Malaysia, the common psychotherapies are mainly CBT, behavioural therapy, hypnosis and family therapy, which were introduced around the 1980s and 1990s (Sheng, 2007; Ward 2019). Unfortunately, the development and involvement of new psychotherapies are comparatively slower and neglected in Malaysia.

In addition, schema therapy and schema theories were proposed by Young (1999) and tested mainly with the Western population. Thus, the utility and effectiveness in a different cultural setting (e.g., Asian population) are unclear (Mao et al., 2022). To date, there were only two studies on schema therapy done in Malaysia. The first study examined the effectiveness of schema therapy in marital communication in Iranian women based in Malaysia (Nooroney et al., 2019). Schema therapy was reported to have high effectiveness and this effectiveness was maintained during the two months follow-up period. Another study investigated early maladaptive schema (EMS) in Malaysian adolescents (Seyed Ebrahim, 2016). They reported that EMS has a mediating role in the relationship between insecure attachment and anxiety symptoms. There is no study to date that involves schema modes in Malaysia or Asia.

The lack of research in schema modes has also been criticised by a meta-analysis from Taylor et al. (2017). It was reported that most studies in schema therapy only measure EMS, but not schema modes. Even though both theoretical concepts are integral and inseparable in schema therapy, however, there are limited studies investigating both concepts simultaneously, measuring both EMS and schema modes together.

The studies on PTSD interventions in the Asian population are still very limited (Ahmed et al., 2015). To the best knowledge of the author, in Malaysia specifically, there are only two studies that looked into the interventions for trauma and PTSD. Wadan et al. (2010) conducted a study on the effectiveness of EMDR with traumatised Iraqi refugee children who immigrated to Malaysia. The results reported that EMDR was effective in reducing PTSD symptoms in these children. Tay et al. (2019) studied the effectiveness of CBT on refugees from Myanmar in Malaysia, who suffered from PTSD and depression. The study showed an improvement in PTSD and depressive symptoms for participants who received CBT, and the improvement stayed for six weeks of follow-up.

In conclusion, from the problem statements above, the study needs to be conducted as there is a strong demand for new trauma-focused psychotherapy, and schema therapy has the potential to fill this demand, with its focus on EMS and schema modes that are not found in other trauma-focused psychotherapy. Additionally, the research field would require more evidence to conclude the effectiveness of schema therapy on PTSD, especially in non-western populations, such as Malaysians.

1.3 Research Questions

The present study consists of two phases. In phase one, the study focused on the development of new schema therapy, specialised for the traumatised population, which the study named 'Trauma-focused Schema Therapy' (Tf-ST). In phase two, the present study conducted a randomised-controlled trial (RCT) to investigate the effectiveness of the new Tf-ST. The present study attempts to answer the following nine research questions:

I. Is there a significant difference in the PTSD symptoms, from pre-test (T1) to post-test (T2) and follow-up test (T3) in the Tf-ST group?

II. Is there a significant difference in the trauma-related EMS, from pre-test (T1) to post-test (T2) and follow-up test (T3) in the Tf-ST group?

III. Is there a significant difference in the trauma-related schema modes, from pre-test (T1) to post-test (T2) and follow-up test (T3) in the Tf-ST group?

IV. Is there a significant difference in the PTSD symptoms, from pre-test (T1) to post-test (T2) and follow-up test (T3) in the Tf-CBT group?

V. Is there a significant difference in the trauma-related EMS, from pre-test (T1) to post-test (T2) and follow-up test (T3) in the Tf-CBT group?

VI. Is there a significant difference in the trauma-related schema modes, from pre-test (T1) to post-test (T2) and follow-up test (T3) in the Tf-CBT group?

VII. Is there a significant interaction in the PTSD symptoms, between the participants in the Tf-ST group and the Tf-CBT group, at pre-test (T1), post-test (T2) and follow-up test (T3)?

VIII. Is there a significant interaction in the trauma-related EMS, between the participants in the Tf-ST group and the Tf-CBT group, at pre-test (T1), post-test (T2) and follow-up test (T3)?

IX. Is there a significant interaction in the trauma-related schema modes, between the participants in the Tf-ST group and the Tf-CBT group, at pre-test (T1), post-test (T2) and follow-up test (T3)?

The present study also conducted a semi-structured qualitative interview to investigate the tenth research question.

X. What are the views of the traumatised Malaysian female young adults on the effectiveness and ineffectiveness of Tf-ST and Tf-CBT in resolving continuous and repeated traumatic experiences?

1.4 Research Objectives

The primary objective of the present study is to develop a new Tf-ST manual, which focuses specifically on addressing the limitations of the original schema therapy and making it more applicable to the traumatised population. This was achieved by integrating evidence-based psychotherapeutic techniques into the original format/structure of schema therapy, proposed by Young et al. (2003), using the assimilative integration method proposed by Messer (2001). Then, the present study reviewed the effectiveness and feasibility of this new Tf-ST with the strongest evidence-based trauma-focused psychotherapy, which is Tf-CBT (Mavranezouli et al., 2020), with Malaysian female young adults, who experienced continuous/repeated trauma. The study used a mixed-method research design as the comparison between quantitative and qualitative data would facilitate a more complete picture, reduce intrinsic biases while comparing two results from different sources, while also draw strengths and minimise weaknesses of both quantitative and qualitative research methods (Denzin, 2010).

Specifically, this study aims to achieve the following objectives:

I. To investigate any significant differences in PTSD symptoms, from pre-test (T1) to post-test (T2) and follow-up test (T3) in the Tf-ST group.

II. To investigate any significant differences in trauma-related EMS, from pre-test (T1) to post-test (T2) and follow-up test (T3) in the Tf-ST group.

III. To investigate any significant differences in trauma-related schema modes, from pre-test (T1) to post-test (T2) and follow-up test (T3) in the Tf-ST group.

IV. To investigate any significant differences in PTSD symptoms, from pre-test (T1) to post-test (T2) and follow-up test (T3) in the Tf-CBT group.

V. To investigate any significant differences in trauma-related EMS, from pre-test (T1) to post-test (T2) and follow-up test (T3) in the Tf-CBT group.

VI. To investigate any significant differences in trauma-related schema modes, from pre-test (T1) to post-test (T2) and follow-up test (T3) in the Tf-CBT group.

VII. To investigate any significant interactions in the PTSD symptoms, between participants in the Tf-ST group and the Tf-CBT group, at pre-test (T1), post-test (T2) and follow-up test (T3).

VIII. To investigate any significant interactions in the trauma-related EMS, between participants in the Tf-ST group and the Tf-CBT group, at pre-test (T1), post-test (T2) and follow-up test (T3).

IX. To investigate any significant interactions in the trauma-related schema modes, between participants in the Tf-ST group and the Tf-CBT group, at pre-test (T1), post-test (T2) and follow-up test (T3).

X. To investigate the views of traumatised Malaysian female young adults on the effectiveness and ineffectiveness of Tf-ST and Tf-CBT in resolving continuous and repeated traumatic experiences.

1.5 Significance of the Study

In phase one, the present study adapted and improved the original schema therapy, and developed it into a new trauma-focused intervention. This study is one of the very few studies on developing new psychotherapy, rather than merely implementing existing psychotherapies without further evaluation and improvement (Benish et al., 2008). With this new adaptation of Tf-ST, the study postulated that it would contribute as an additional trauma-focused treatment from the current limited options, which are Tf-CBT and EMDR. The present study also postulated that the proposed Tf-ST would be able to resolve some of the limitations faced by Tf-CBT and the current schema therapy. Traumatic experiences are highly prevalent, occurred very frequently and have severe impacts such as contributing to PTSD symptoms (Suhaila et al., 2018); thus, this specialised manual would be beneficial.

In phase two, the present study conducted an interventional randomised controlled trial (RCT), to investigate the effectiveness of the Tf-ST developed in phase one, with traumatised female young adults in Malaysia. The effectiveness of the Tf-ST is compared with Tf-CBT. RCT is a type of scientific experiment that aims to reduce biases when testing the effectiveness of a new treatment; this is accomplished by randomly allocating participants to two or more groups, treating them differently, and then comparing them with quantitative outcome measures. The present study also conducted a semi-structured qualitative interview with the participants from both Tf-ST and CBT groups, to gain an in-depth insight into the differences, effectiveness and ineffectiveness of both psychotherapies. Thus, the present study utilized mixed-method research. Mixed-method research is highly encouraged as the comparison

between quantitative and qualitative data would facilitate a more complete picture, reduce intrinsic biases while comparing two results from different sources, while also draw strengths and minimise weaknesses of both quantitative and qualitative research methods (Denzin, 2010). The RCT and qualitative interview would be able to fill in the gap in the research field in Asia and Malaysia, due to the lack of studies in PTSD or schema therapy.

Moreover, schema therapy is proposed by Young (1999) in the Western culture, thus it is important to validate its utility and effectiveness in a different cultural setting than the Western population (Mao et al., 2022). Hence, the present study investigated schema therapy with Malaysians, and this would also provide evidence on whether schema therapy would be suitable and applicable psychotherapy in an Asia culture, despite being originally designed in Western culture. It was reported that Malaysia has a good variety of different ethnicities and races; and strong inclusivity toward different ethnicities and religions (Gabriel, 2021; Noor & Leong, 2013; Verkuyten & Khan, 2012). This makes Malaysia a perfect country to represent multiculturalism and diversity in Asia.

Additionally, studies have also suggested that young adults and females are more likely to develop PTSD as compared to older adults, as they are more likely to expose to traumatic experiences, and their emotional sensitivity towards the traumatic experiences is higher (Karakurt & Silver, 2013; Murph et al., 2019). Studies such as Simpson et al. (2011) and Kaminer et al. (2018) have also reported that continuous and repeated traumas are more detrimental than single-event trauma. With this, the present study investigated the effectiveness of Tf-ST on female young adults who experienced

continuous/repeated trauma, to provide evidence towards the applicability of schema therapy as an effective psychotherapy for this population.

Ever since the emergence of the COVID-19 pandemic, the safest and most preferred option for conducting psychotherapy has been through online platforms, to avoid the spread of COVID-19 (Amat et al., 2021). Thus, there is a demand for online trauma-focused psychotherapy in both clinical and research fields. The present study employed the new Tf-ST as an online psychotherapy.

1.6 Scope of the Study

This study developed a new Tf-ST and then compare its effectiveness with Tf-CBT, in the reduction of PTSD symptoms, EMS and schema modes. The sample population of this study is Malaysian female young adults who have experienced continuous/repeated traumatic events and are eligible for PTSD provisional diagnosis. The study was conducted across different parts of Malaysia. The whole study process was conducted online to accommodate the pandemic.

1.7 Overview of Subsequent Chapters

Chapter 2 provides a review of trauma and PTSD, and the current trauma-focused interventions (Tf-CBT), including their benefits, effectiveness and limitations. This chapter also provides the justification of schema therapy as a suitable trauma-focused intervention, and also how schema theories such as EMS and schema modes are applicable to trauma theories. Later, the chapter reviews different studies which investigated EMS and schema modes with traumatised populations; and introduces the

nine trauma-related EMS and four trauma-related schema modes. This chapter also discusses the limitations of schema therapy and aims to address them with the assimilative integration method. This chapter also examines the option of online trauma-focused psychotherapy.

Chapter 3 introduces phase one and phase two of the present study, (a) phase one: the development of Trauma-focused Schema Therapy (Tf-ST), and (b) phase two: a randomised-controlled trial (RCT) on the effectiveness of the Tf-ST. In this chapter, the study discusses the research process of developing the new Tf-ST through assimilative integration (phase one). Then, the study discusses the RCT and the semi-structured qualitative interview (phase two), such as the research design, ethical considerations, research variables, participants, subject criteria, recruitment of the participants, sample size, research instrument, psychotherapists, procedures, and statistical analyses.

Chapter 4 is divided into two sections, namely, the quantitative and qualitative analyses. In this chapter, the descriptive statistics and demographic characteristics of the participants are presented. Then, the quantitative data analyses are presented based on the hypotheses of the present study. Finally, the qualitative data analyses are described.

Chapter 5 discusses and interprets the results of hypothesis testing from the previous chapter. Then, the theoretical, methodological and practical implications of the study, the limitations, the suggestions for future research and the conclusion are presented.

CHAPTER 2

LITERATURE REVIEW

2.1 Overview

This chapter provides a review of trauma and PTSD, and the current trauma-focused interventions (Tf-CBT), including their benefits, effectiveness and limitations. The chapter also provides the justification of schema therapy as a suitable trauma-focused intervention, and also how schema theories such as EMS and schema modes are applicable to trauma theories. Later, the chapter reviews different studies which investigated EMS and schema modes with traumatised populations; and introduces the nine trauma-related EMS and four trauma-related schema modes. This chapter also discusses the limitations of schema therapy and aims to address them with the assimilative integration method. Lastly, the chapter introduces phase one and phase two of the present study and the hypotheses.

2.2 Trauma and Post-traumatic stress disorder

Trauma is a distressing event that contributes to an overwhelming amount of stress that exceeds one's ability and resources to cope, and the individual is unable to integrate the emotions involved with the traumatic experience (Forbes et al., 2020). Based on the Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition (DSM-5), a traumatic event is defined as exposure to actual or threatened death, serious injury, or sexual violence. The individual must have directly experienced the traumatic event; or indirectly experienced the event such as witnessing in person as the event occurred to others, learning that the event occurred to a close family member

or close friend, or experiencing repeated or extreme exposure to aversive details of the traumatic event.

It was originally believed that most traumatic events elicit mainly fear-based emotions. The individuals developed a strong level of fear and avoidant behaviours, similar to phobias after experiencing traumatic events (Langkaas et al., 2017). The common traumatic events that brought fear-based emotions are normally life-threatening situations such as physical abuse, war, accidents and natural disasters (Langkaas et al., 2017). On the other hand, studies such as Arntz et al. (2007) and Grunert et al. (2007) reported that there are other non-fear-based emotions often being elicited from traumatic events too, for instance, anger, inferiority, shame, sadness and guilt. These types of emotions are common in traumatic experiences that involve victimisation, exploitation, threats and humiliation. For instance, interpersonal trauma, sexual, verbal and emotional abuse, where the individuals feel angry, shameful and sad from involuntary becoming a victim (Langkaas et al., 2017). Most traumatic events elicited both fear-based and non-fear-based emotions (Langkaas et al., 2017). However, when there is a stronger level of non-fear-based emotions, it often resulted in more severe and detrimental impacts, and it is harder to be treated (Langkaas et al., 2017).

Traumatic experiences are found to be extremely detrimental to both physical and mental health. Soberg et al. (2012) conducted a five years longitudinal study on participants who have experienced traumatic events. It was reported that these participants had significantly poorer physical and mental health than the population means. In terms of physical health, the common disorders after traumatic experiences are general health symptoms, general medical conditions, musculoskeletal pain, cardio-respiratory symptoms, and gastrointestinal disorder (Pacella et al., 2013). On

the other hand, the most common mental health disorder resulting from traumatic experiences is PTSD (Hyland et al., 2019).

PTSD is an anxiety disorder that develops after an individual witness or encounter life-threatening or traumatic events, which could then lead to intense fear, helplessness, or horror. Based on the DSM-5, there are four major criteria of PTSD symptoms, (a) presence of one/more of the intrusion symptoms associated with the traumatic event, such as recurrent, involuntary and distressing memories, dreams, affects, psychological and physiological distress (b) persistent avoidance of stimuli associated with the traumatic event, such as distressing memories, thoughts, feelings or external reminders, beginning after the traumatic event occurred, (c) negative alterations in cognitions and mood associated with the traumatic event, such as persistent and distorted negative beliefs, emotional state, feelings of detachment, inability to experience positive emotions or diminished interest in activities, beginning or worsening after the traumatic event occurred, (d) marked alterations in arousal and reactivity associated with the traumatic event, such as irritated, aggressive, reckless, exaggerated and hyper-vigilant behaviours, beginning or worsening after the traumatic event occurred (American Psychiatric Association, 2013).

PTSD symptoms are found to be severe and able to create significant distress and impairment in various areas of functioning (Girard et al., 2007). For instance, individuals with PTSD tend to suffer from intrusive psychological and physiological distresses that might impair their daily functioning and well-being (Hyland et al., 2019). Individuals with PTSD also have a high prevalence of self-destructive behaviours such as suicidal and self-harm behaviours, which might be extremely dangerous (Hyland et

al., 2019). Thus, PTSD is considered a 'critical illness', and individuals suffering from PTSD often require quicker, immediate and shorter-term support (Hyland et al., 2019).

There is a high prevalence of PTSD in Malaysia (Ghazali et al., 2013). A study investigated the survivors of the Malaysian Tsunami in 2004; 19% of the survivors fulfilled the PTSD diagnostic criteria (Ghazali et al., 2013). However, among all the survivors of the trauma, there was a significant level of maladaptive coping strategies that represented PTSD symptoms based on DSM-5 (American Psychiatric Association, 2013). In addition, another study investigated 40 Malaysian women who have experienced domestic violence (Din et al., 2010). They found that 60% of these women had experienced PTSD symptoms based on the DSM criteria. They reported a higher level of exaggerated negative beliefs or expectations about themselves and also distorted cognitions such as self-blame (Din et al., 2010). Another recent study investigated PTSD symptoms among 1,016 Malaysian adolescents from non-clinical settings and found that 83% of adolescents had at least one traumatic exposure, while 11.7% of adolescents had demonstrated PTSD symptoms (Ghazali et al., 2017).

In addition, Karakurt and Silver (2013) reported that young adults were found to experience higher levels of traumatic events, especially abuse, and were more likely to develop PTSD. This prevalence declines with age (Karakurt & Silver, 2013). This is explained as some young adults are starting as new employees in their workplace, and they might also experience bullying such as physical, sexual or verbal abuse from their colleagues or bosses (Rong & Tharbe, 2018). Rong and Tharbe (2018) conducted a survey on Malaysian young adults who were currently working. The study found that workplace bullying was prevalent among young adults. Additionally, young adults might also begin to engage in romantic relationships, where there might be a chance

of interpersonal abuse from their romantic partners (Cadely, & Kisler, 2022). Daruwalla et al. (2020) studied 5122 women in India and reported that younger adults have significantly higher exposure to domestic violence than older adults. Besides, studies have also suggested that the long-term adverse effects of childhood trauma tend to manifest in the young adulthood stage. For instance, Sonu et al. (2019) studied 86,968 adults who have suffered from adverse childhood experiences. They reported that among the traumatised younger adults, there were more severe chronic physical and mental-health disorders. Nevertheless, the prevalence of chronic disorders reduced with age, where older adults with adverse childhood experiences reported lesser chronic disorders. Ballard et al. (2015) studied 1815 young adults and reported that those who experienced traumatic events previously in their childhood, tended to develop psychiatric outcomes, criminal convictions and physical health problems in their young adulthood stage. Furthermore, the emotional development of young adults is still immature and not fully developed, hence they were more likely to develop PTSD when exposed to traumatic experiences (Jain & Sinha, 2022). As they grew older, they become more resourceful, experienced, and assertive in dealing with the traumatic experience; thus, reducing the risk of developing PTSD symptoms (Karakurt & Silver, 2013). For example, Charles and Carstensen (2010) interviewed adults in different stages, and they reported that older adults had better emotional well-being and were more satisfied with their life, as compared to younger adults. In another study, younger and older adults were presented with a few stimuli, that elicited attachment-related emotions such as sadness, fear and anger (Fernández-Aguilar et al., 2018). It was found that older adults recovered easier from the effects of negative emotions than younger adults. These studies demonstrated that younger adults were

more likely to be affected and influenced by traumatising and emotional experiences compared to older adults.

Multiple studies have also reported that females were more likely to experience traumatic events and exhibit a higher level of PTSD symptoms. Kimerling et al. (2018) conducted a review of the traumatic experience and PTSD symptoms among different gender. They reported that women were twice as likely to suffer from a traumatic experience and PTSD than men. A review conducted by Shahar et al. (2020) reported that in Malaysia, the prevalence of intimate partner violence among females ranged from 4.94 to 35.9%, which was considered high. Saylik et al. (2018) suggested that females were more sensitive toward emotions. Females were reported to experience more intense emotions, including anxiety, fear and helplessness, as compared to males (Saylik et al., 2018). With this, they experienced a higher level of emotional distress when it comes to traumatic events, and emotional distress was suggested to contribute to PTSD symptoms by consolidating the trauma memories and conditioning the trauma cues (Lilly et al., 2009). This is supported by Murphy et al. (2019), who studied the sex differences in PTSD symptom expression. They recruited 481 adolescents in Malaysia. The study reported that females scored significantly higher on emotional cue reactivity, where they reported a higher level of emotional distress when they encountered trauma triggers.

Besides, it should be noted that in the current DSM-5, there was no differentiation between single-event trauma and continuous/repeated trauma (Simpson et al., 2011). Nevertheless, studies have found that continuous/repeated trauma is much more detrimental than single-event trauma. Ghazali et al. (2014) studied 85 adolescents in Malaysia on their traumatic experiences and PTSD symptoms. They