EXPLORING DYSFUNCTIONAL SCHEMA MODES AND PTSD IN INDIVIDUALS WITH ACQUIRED BRAIN INJURIES AND ORTHOPEDIC TRAUMA

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DECLARATION

This is to certify that this thesis is solely my original work. It has not been previously submitted for any other degree or professional qualification. The contributions and statements of other authors have been mentioned both in the reference list and the running text.

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CERTIFICATE

It is certified that this thesis entitled ***"Exploring Dysfunctional Schema Modes and PTSD Symptoms in Individuals with Acquired Brain Injuries and Orthopedic Trauma"*** prepared and submitted by Mr. Sabir Zaman in partial fulfillment of the requirement for the degree of Ph.D. in Psychology. The thesis has been approved for submission to the Department of Psychology International Islamic University Islamabad, Pakistan.

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Dedicated

to

My Mor (Mother), Plaar (Father), who dream and pray; I live

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List of Abbreviations

ABI	Acquired Brain Injury
AC	Angry Child
ACRM	American Congress of Rehabilitation Medicine
APA	American Psychiatric Association
ASD	Acute Stress Disorder
AvPD	Avoidant Personality Disorder
BA	Bully Attack
BP	Borderline Personality
CAPS	Clinician Administered PTSD Scale
CDC	Centre of Disease Control
CHD	Coronary Heart Disease
CS	Complaint Surrender
C.T Scan	Computer tomographic Scan
CVD	Cardiovascular Disease
DP	Detached Protector
DP	Demanding Parent
DSM	Diagnostic Statistical Manual
DSS	Detached Self Soother
EC	Enraged Child
FAI	Fire Arm Injury
FGD	Focus Group Discussion
fMRI	Functional Magnetic Resonance Image
GCS	Glasgow Coma Scale
HA	Healthy Adult
HC	Happy Child
HIV	Human Immune Virus
IC	Impulsive Child
LOC	Loss of Consciousness

MRI	Magnetic Resonance Image
MVAs	Motor Vehicle Accidents
PD	Personality Disorder
PET	Positron Emission Tomography
PP	Punitive Parent
PTA	Post Traumatic Amnesia
PTSD	Post-traumatic Stress Disorder
RTA	Road Traffic Accident
SA	Self-Aggrandizer
SAM	Situational Accessible Memory
SQ	Schema Questionnaire
TBI	Traumatic Brain Injury
UC	Undisciplined Child
VAM	Verbal Accessible Memory
VC	Vulnerable Child
WHO	World Health Organization

Abstract

Physical injury and trauma are stressful events that have severe and long-lasting negative consequences, such as post-traumatic stress disorder (PTSD), cognitive, emotional and behavioural distress. In this backdrop, physical injury and trauma-based problems leading to maladaptive schema and PTSD have recently gained importance. This study aimed to investigate psychological disorders such as PTSD and maladaptive schema mode among acquired brain injury and orthopaedic trauma patients. The study aimed to compare PTSD severity level, maladaptive schema mode, and adaptive mode among traumatic and non-traumatic brain injury patients. The study also explored PTSD, and maladaptive and adaptive schema mode among open and closed fracture patients of both upper and lower limbs. Moreover, the present study examined the prevalence of PTSD and maladaptive and adaptive schema mode among male and female patients. To meet these aims and objectives, this study was carried out in two phases.

Study I: adaptation and cross language validation of the Clinician Administered PTSD scale (CAPS-5) from English to Urdu. A procedure of forward and backward translation was adapted. The psychometric properties of CAPS-5 were established on sample (n=140) age greater than 18 years, who have life threatening trauma experiences. The Cronbach α coefficient of subscales was satisfactory ranging from .62 to .95. Furthermore, results showed high stability of correlation coefficient in two different times of both English and Urdu languages. Study II, consisted of the main study intended to explore the maladaptive schema mode and PTSD among acquired brain injury and orthopaedic trauma patients. The total sample of the present study was 317 patients which consisted of three groups: 132 with acquired brain injury, 137 having orthopaedic trauma, and 48 with multiple injuries.

The study sample consisted of both males (n = 229), and females (n = 88) ranging in age from 18 to 70 (mean age 33), who were selected from the Pakistan Institute of Medical Sciences through a purposive sampling technique. In addition, clinical structured interviews were used for demographic history and physical illness. Different statistical analyses such as a simple independent t-test, analysis of variance and Chi square were used. Results indicated a significant difference among Acquired Brain Injury (ABI) (M = 142.16, SD = 11.16) and orthopaedic trauma (M = 138.65, SD = 11.16,), over maladaptive schema mode. Similarly, significant mean differences were found among ABI (M = 59.65, SD = 8.68), orthopaedic trauma (M = 56.38, SD = 9.28) and multiple injury subjects (M = 60.71, SD = 8.61). In addition, findings showed significant differences between male and female patients with PTSD (t (315) = 2.05, p<.05) and maladaptive coping style (t (315) = 2.37, p<.05). Overall, the findings of the study showed that PTSD symptoms were higher in females than in males. Intentional and moderate injury patients had high scores on PTSD, maladaptive schema mode and maladaptive coping. This study is a significant contribution to the fields of health, neuropsychology, and psychotherapy particularly, schema focused therapy, where published research is limited in Pakistan.

Chapter 1

Introduction

The extant literature shows that a continuous and increased exposure to trauma and injury is seen in worldwide, and particularly in third world countries. This may have a dramatic effect on the physiological health and psychological wellbeing of individuals. Injuries and physical trauma are measurable and may bring physical pain, emotional and cognitive disturbance. Along with physical trauma, emotional trauma may also occur; however, emotional trauma has an acute and chronic effect on individual psychological health. Early trauma (physical or emotional) may bring strong structural and biochemical changes in the brain which may cause a variety of psychological disorders such as Post Traumatic Stress Disorder (PTSD), depression and anxiety, etc. Traumatic experiences have wide range of effects on the whole body especially on brain structure and functions. The brain plays an important role in healing in response to psychological distress. This study helped to understand psychological phenomena such as PTSD and dysfunctional schema modes among patients who have a brain injury after exposure to trauma.

Similarly, physical trauma may also affect the musculoskeletal system. Physical trauma may cause fractures in the long bones of the upper and lower extremities that lead to psychological disorders among these patients. Orthopedic trauma includes multiple fractures and imputation, and is a sudden and unpredictable life-changing events. Physical intervention and rehabilitation have traditionally addressed the physical deficit after a traumatic injury. However, important relevant psychological factors may also have dramatic effects on long-term recovery. Orthopedic survivors mostly experience PTSD, depression and anxiety that inhibit physical growth and quality of life. Early diagnosis of

psychological distress may help health care professionals providing support to indemnify the effect of the distress. This study attempted to understand the intensity, severity and frequency of PTSD and maladaptive schema of survivors who have had traumatic experiences involving bone fractures. Traumatic events or injuries may impact the life of anyone and can sometimes take more time to recover from than the expected duration. Early diagnosis may be helpful in the psychotherapeutic process. It is predicted that individuals who have coping skills, support and therapeutic counselling can recover quicker.

Trauma

The concept about trauma was confusing that originally meant physical or organic damage to nervous system. It is a Greek word which means a wound or piercing, in which soldiers are referred to the bodily injury or wounds from piercing of their armor (Gatzanis, 2003). Later on, in psychiatric and medical literature trauma was considered a wound which affect mind rather than body (Caruth, 2016). So, in mental health profession, "trauma" can be defined as the wide-range of every day disturbing experiences beyond the normal daily norms (Wang et al., 2011). In fact, traumas are considered to occur after any events or activities beyond the daily life experiences which may cause pathological symptoms in an individual. It may occur for few seconds but can have a long-lasting effect on life. Furthermore, World Health Organization defines trauma to be any type of injury that has the probability to cause death or disability for a longer period of time (Administration, 2015).

Trauma and injury is one of the worldwide problems and a leading cause of disability, death, and impairment among youth in both developed as well as developing

nations. The World Health Organization (WHO) classified injury into two categories, intentional and unintentional injuries (WHO, 2010). The unintentional injury includes road traffic accident, fall, burn, floods, and earthquakes, while intentional injuries include personal violence (gunshot, sexual assault, homicide and maltreatment, suicide and war).

According to the WHO, approximately 1.5 million people die due to road traffic accident every year (WHO, 2018). Trauma is the seventh leading cause of mortality all over the world (Peden, McGee, & Krug, 2002). The first leading cause of mortality and morbidity in the whole world is a mixed group of diseases 32%, and the second leading cause of death and disability is infection and parasites disease which is approximately 23%, while injury is the third highest cause of death which is about 16% (Organization & Control, 2008). It has been reported in the year 2002 that road traffic accidents were the 8th major cause of death (Peden, McGee, & Krug, 2002). Moreover, it is predicted that road traffic fatalities will get high and become the third major universal cause of death in the world by the year 2020 (Peden, McGee, & Krug, 2002; WHO, 2018). The mortality and morbidity occurring due to injuries and violence of both genders across the world is not equally distributed around the world, some individuals are more vulnerable than others (Injuries, 2014). Furthermore, 54% deaths occur due to bicycle, motorcycle and pedestrian's accidents. The developing countries have 1% of the world's vehicles with a death ratio of 13%, whereas developed countries have 40% vehicles with 7% mortality ratio which is lower than the developing countries (WHO, 2018).

In addition, injuries are major health related problems in every country across the world which cause over 5 million deaths annually, and about 16000 deaths daily (Organization, 2008). According to WHO, the unintentional or accidental trauma were

responsible for about 3.9 million deaths and 138 million disabilities in the year 2004. Among these 90% occur in developing countries (Chandran, Hyder, & Peek-Asa, 2010). Moreover, in unintentional injuries, road traffic accident (RTA) is one of the major causes of deaths and approximately 1.3 million deaths occur annually due to RTA. In these casualties, about 148 deaths reported per hour are under the age of 35 years (Mackenzie & Fowler, 2003; Søreide, 2009). A study revealed that male age ranged is between 15-24 years are more responsible for such type of injuries (Polinder, Meerding, Mulder, Petridou, & van Beeck, 2007).

Furthermore, two thousand people per hour and 45 million people annually suffer from moderate and severe disabilities due to unintentional injuries (Peden, McGee, & Krug, 2002). In developing nations more than 80% people are effected annually with this global injury, while in developed countries approximately 3.9 million people get disabled due to such injuries every year (Søreide, 2009). The demographic characteristics like age, sex, socioeconomic status, occupation, and professional factors are also important in getting injuries (Murray et al., 2012). Approximately fifty percent mortality of all types, related to injury occur in the age range between 15-44 years (Peden, McGee, & Sharma, 2002), and about 700 million children below 15 years of age get wounded during 2002 (Organization, 2002).

Despite, the demographic characteristics there are many other risk factors responsible for all types of injuries such as poverty, terrorism, road traffic accidents, and political instability which lead to increase in violence. Some other risk factors like, lack of legislation, speed control on road, use of safety helmet, use of seat belt, home safety measure, and lack of pre-hospital trauma care system (Hyder & Razzak, 2013).

On the other hand, Pakistan is one of the low income South Asian developing countries and here the situation is worse as unintentional injuries is among the top ten contributors to injuries, disease, and causes of disabilities and mostly affect the younger population (Hyder & Razzak, 2013; Jamali, 2008). In Pakistan, people between the age ranges of 21-30 years were found to be affected through injuries. Injuries caused by road traffic accident were (62.6%), history of fall (31.7%) and assault (5.5%) (Umerani, Abbas, & Sharif, 2014). National Road Safety Secretariat reported that approximately, two million accidents occurred in Pakistan in 2006 and among these 0.418 accidents were serious in nature (Ahmed, 2007).

Primarily, the current study tried to investigate the relationships between Acquired Brain Injury (ABI) and schema mode, and also focused on the association between specific schema modes and ABI, particularly with traumatic brain injury. In the same way, the current study tried to explore the dysfunctional schema modes and their relationship with orthopedic trauma (fracture), particularly the traumatic fracture of long bone extremities. Similarly, the current study also assessed the patients of ABI and orthopedic trauma regarding their levels of schema modes. The study also investigated the coping style strategies, coping defenses and coping flexibility of traumatic, non-traumatic brain injuries and traumatic bony fracture. The purpose of the current study was to determine the intensity, prevalence and frequency of PTSD among survivors attending the traumatic and non-traumatic brain and orthopedic injury, including both open and closed fracture of upper and lower long bones extremities.

Furthermore, the present study also intended to investigate the association of Dysfunctional Schema Mode and PTSD among Acquired brain injury. Brain is the most

important organ of the body that is a combination of billions of nerve cells. It controls various functions of the body like breathing, emotion, memory, executive functioning, cognition, physical function, behavior, sensation, etc. Moreover, damaged brain area, severity and location of brain injury determine the disabilities of function (Katz, Zafonte, & Zasler, 2006). The next section describes the phenomena of Acquired Brain Injury (ABI) in the perspective of present study.

Clinical Aspects of Acquired Brain Injury (ABI)

Mechanism and Criteria

ABI is a main medical and health related problem across the world, such as Ireland, European nations and so on (Lannoo, Brusselmans, Eynde, Van Laere, & Stevens, 2004). ABI is any type of damage and impairment of brain after the birth which does not include degenerative or congenital diseases. These injuries may cause temporary or permanent multiple disabilities, which may lead to complete or partial functional or psychosocial impairment in an individual (Finnerty, Glynn, Dineen, Colfer, & MacFarlane, 2009; Kamalakannan, Gudlavalleti, Gudlavalleti, Goenka, & Kuper, 2015)

Causes

There are two main causes of ABI. Firstly, the Traumatic Brain Injury (TBI) can happen to an individual as a result of external physical and mechanical force to the brain (Maas, Stocchetti, & Bullock, 2008). An individual may also experience TBI due to Road Traffic Accident (RTA), history of falls, assault, a motor vehicle accident, penetrating trauma or any other trauma to the skull, head, Dura, or brain (Joseph & Linley, 2008). Moreover, in TBI, the history of fall is one of the major and most frequent causes of

mortality and morbidity (Tagliaferri, Compagnone, Korsic, Servadei, & Kraus, 2006). In developing countries, it is presumed that there will be 65% increase in motor vehicle accident between 2000 and 2020 (Peden et al., 2004). Approximately, 10 million people suffered from TBI all over the world. Among these 10 million, 5.3 million people belong to United States (Hyder, Wunderlich, Puvanachandra, Gururaj, & Kobusingye, 2007).

In addition to it, about 52 million people die from TBI annually, and 100 million people develop new disabilities (Silver, McAllister, & Arciniegas, 2019). Similarly, about, 2.5 to 6.5 million people suffer from long-term consequences and outcomes (Panel, 2001). According to Center of Disease Control and Prevention (CDC), 2001-2010, TBI found in male 29%, which is higher than females. Furthermore, the report of CDC shows that the history of fall is the main reason of TBI, which is around 40.5%, whereas motor vehicle accidents for 14.3%, assault 10.7%, and unknown 19%. Moreover, usage of alcohol also results in brain injury and in such injuries the concentration of alcohol was found 56% (Kraus, Morgenstern, Fife, Conroy, & Nourjah, 1989). The health department of United Kingdom conducted a study which states that approximately 10 to 15 people per hundred thousand of the population suffer severe or very severe brain injury annually. The study also estimated that a number of people suffer brain injury due to traumatic incidents or medical causes (Tennant, 2005).

Secondly, non-traumatic brain injury includes neurological conditions such as strokes, vascular disorder, meningitis, infection in the brain, brain tumors, hemorrhages, viral infection, brain abscess, brain swelling poisoning, and lack of oxygen (Joseph & Linley, 2008). In Ireland, 0.5 billion people suffer from neurological condition, among this population approximately, 13 million people have brain injuries every year, and about 10

million were hospitalized with a diagnosis of stroke. The prevalence is underestimated due to lack of reliable statistics. Furthermore, around 30 million people are survivors, who recovered from stroke, and many of them developed different types of disabilities (Finnerty et al., 2009). Unlike, some of the non-traumatic brain injury such as cerebral vascular accident (stroke), sudden onset of neurological impairment lasting for more than 24 hours can cause death (Langlois, Rutland-Brown, & Wald, 2006). However, injury has a unique impact on individual's physical and psychosocial health, which may lead to temporary or permanent physical or psychosocial impairment (O'Rance & Fortune, 2007).

In India, the condition is worse as compared to the rest of the world, approximately 100 million people die due to road traffic accident annually, and only 50-60 % people are hospitalized and admitted for head injury (Kamalakannan et al., 2015). Whereas, in Pakistan, the situation is not different from the rest of the world. The ratio of TBI is greater than non-TBI. One of the studies reported that road traffic accident is the most common cause of TBI. The ratio of TBI due to road traffic accident (RTA) was 45%, history of fall 34%, Fire Arm Injury (FAI) 14%, and assault 15% (Hassan et al., 2017). However, in developed nations, one of the most common causes of TBI is motor vehicles, while in developing countries like Pakistan, the most common victims of TBI are pedestrian and motorcyclists (Hassan et al., 2017).

Symptoms

The symptoms and consequences of brain injury are complex. Their outcomes and effects can persist for a long time or for a short period and its consequences may be minor or severe. The symptoms and consequences vary from person to person, because brain controls different aspects of our life activities and it affects physical, emotional and

behavioral, cognitive, social, personal, and practical health. That is why the effects or consequences can be different among people. Even some time the minor problem can affect the people's lives and those of their loved ones (Turner-Strokes, 2003).

The patients of ABI have different types of problems depending on the location and nature of brain injury. Some of the difficulties and problems arise from ABI are physical, emotional, cognitive, social, and personal levels. The physical difficulties include headache, fatigue, pain, nausea/vomiting, paralysis, abnormal muscle tone, sleep, visual problems, epileptic seizure, and dysphagia, while emotional problems of ABI patients may include anger, aggression, anxiety, depression, mood swings, inappropriate sexual behavior, adjustment problem, poor motivation, and sensory deficit. In addition, ABI may also have some cognitive problems like impairment of memory, loss of concentration, lack of attention, difficulty in problem solving, difficulty in perception, and decision-making problems. Moreover, the social and personal difficulties that arise due to ABI may include social interaction problem, difficulties in domestic activities, sexual, and personal problem (Turner-Strokes, 2003).

The Changes in consciousness level may occur due to ABI. These changes in consciousness level may depend on severity of brain injury or the increasing intracranial pressure within the skull. In everyday condition an individual is alert and attentive. When consciousness is damaged or impaired due to brain injury individual becomes lethargy, dull, and gets into deep or moderate coma (DIMANCESCU, 2007). Hyperventilation may occur in ABI patients. In hyperventilation, changes in breathing rhythm and increasing intracranial pressure may exist. There might be construction of blood vessel and decrease of blood volume to the head. When the condition becomes worse, breathing pattern changes

regularly and increase in amplitude occur after each breath and progressively decreases in amplitude in repeating cycle called Cheyne-stroke breathing. The Kussmaul breathing can occur after the function impairment of each inspiration and expiration, followed by a pause. When condition further aggravates, irregular breathing is followed by different and varying length of pauses (Adams, Victor, Ropper, & Daroff, 1997; Rowland & Pedley, 2005).

Similarly, alteration is vital signs such as heart rate and blood circulation may also occur in ABI patients. The heart rate decreases and blood pressure increases of a patient with intracranial pressure (Rowland & Pedley, 2005). In addition, changes in motor responses such as weakness and paralysis of a body may also occur in ABI patients. One side paralysis of the body reflects opposite to the brain injury. The paralysis and weakness of both sides of the body reflect bilateral damage of the brain (Rowland & Pedley, 2005). Similarly, changes in sensory function is one of the least parameters to assess the alertness and cooperation. It helps in determining the brain injury and impairment in autonomic functioning, rapid heart rate, and profuse sweating may also occur in ABI patients (Rowland & Pedley, 2005).

Diagnoses

The severity of brain injuries can be categorized into three stages i.e., mild, moderate and severe. Different clinical benchmarks or criteria have been used to define the severity and consciousness level of an individual with brain injuries (Ruff, 1999). However, the American Congress of Rehabilitation Medicine (ACRM) proposed a definition for consciousness level that is more accepted. It includes diminished Loss of Consciousness (LOC) about oneself and surrounding for less than 30 minutes, disruption of memories, and Post Traumatic Amnesia (PTA). It also includes the lack of ability to

retain and recall new information for less than 24 hours (Head, 1993). The GCS is an initial assessment scale used for investigation of consciousness level of an individual. It is a 15-point scale, consists of verbal response, eye opening, and motor response; each subscale has five items and used to measure the severity and consciousness level of brain-injured patients (Graham Teasdale et al., 2014). The Individual score on GCS 13/15 indicates mild brain injury such as temporary or permanent neurological symptoms. While on the other side, the GCS score 9-12/15 and below 8 show moderate and severe brain injury respectively and both types of injuries bring lasting impairment in cognitive, thinking and, physical skills (Clare & Hamilton, 2003; Teasdale, Allen, Brennan, McElhinney, & Mackinnon, 2014). Furthermore, advanced diagnostic instruments are used like C.T Scan, MRI, fMRI and PET etc.

The relationship between brain injuries and psychological disorders have been found in several studies. According to the study, individuals with brain trauma had a link with affective disorder and development of depression, which reduced the rehabilitation and recovery outcomes (Corrigan & Deutschle 2008; Rapoport, Kiss, & Feinstein, 2006). Patients with ABI have been attributed high rate of depression in addition to other problems; like frustration and anger (Ownsworth, Little, Turner, Hawkes, & Shum, 2008). The Suicidal attempt and ideation may also exist in ABI patients. The suicidal ideation rate approximately 23-28% (Mackelprang et al., 2014; Simpson & Tate, 2002; Tsaousides, Cantor, & Gordon, 2011), while suicide attempt rate 26% (Simpson & Tate, 2005). Furthermore, emotional disturbance and substance abuse are also reported in severe TBI cases (Simpson & Tate, 2005).

In addition, the Challenging behaviors, including physical and verbal aggression, agitation, anger, depression and emotional dysregulation arise in brain injured patients probably due to frontal lobe injury (Baguley, Cooper, & Felmingham, 2006). The existence of aggressive symptoms in patients having brain injuries lead to depression in some patients (Backhaus, Ibarra, Klyce, Trexler, & Malec, 2010). A study revealed the association between damaged brain area and depression, which indicated that lesion on right hemisphere including areas of parietal and occipital lobe are more likely to be linked with depression (Jorge et al., 2004). Moreover, addictive and gambling behavior have also been reported in individuals with pre and post ABI (Jorge et al., 2005). Similarly, personality disorder, mood swing and alteration may also occur in pre and post TBI cases (Hibbard et al., 2000).

The sustained mild TBI patients have developed PTSD symptoms, especially in military personnel, however PTSD symptoms are also found to be developed in moderate and severe brain injury patients. Approximately 18% patients with post TBI have developed PTSD (Barker et al., 2013). Patients with comorbid PTSD and TBI may experience sleep disturbance problems, depression, anxiety, and cognitive impairment (Barker et al., 2013). In this regard, it has been reported in several studies that severe TBI and posttraumatic amnesia have an influence on PTSD. This shows that TBI and formation of pathological memories are responsible for PTSD symptoms (Elbert & Schauer, 2002).

Pakistan is considered to be a densely populated country in the world. The Neuro-trauma is one of the most prominent and major causes of death and disabilities in the early life period. The Neuro-trauma does not only bring physical problems but also the psychological and mental health problems in young people. Consequently, these physical

and mental health problems cause socioeconomic burden. Firstly, the current research work intended to study dysfunctional schema modes of the individual with ABI. Secondly, the present study tried to explore the psychiatric symptoms such as PTSD symptoms, leading to cognitive, emotional, and behavioral problems of ABI patients. Thirdly, the study also investigated the coping style and strategies of a patient with acquired brain injury. Furthermore, the existing study also tried to identify the association of maladaptive schema modes and PTSD symptoms in orthopedic trauma patients. In the next section orthopedic trauma is explained in detail.

Orthopedic Trauma

Orthopedic trauma is a severe type of injury related to the musculoskeletal system due to accident (Herkowitz, Garfin, Eismont, Bell, & Balderston, 2011). It includes amputation and multiple fracture, dislocation, soft tissue injury hematomas, connective tissue injuries (Strain and sprain). Sometimes a severe complication may occur after orthopedic trauma like fat metabolism, hemorrhage, septic arthritis, compartment syndrome and osteomyelitis (Mistovich, Limmer, Werman, & Batsie, 2011). All orthopedic traumas are not life threatening, however these may unpredictably alter the life of an individual which requires immediate medical treatment and attention (Herkowitz et al., 2011). Thus, orthopedic trauma related to our skeletal system consists of bones, which provides proper shape and structure to the body. It also provides protection and mechanical support and facilitates the movement of the body. Moreover, the bone also takes part in the homeostasis of the body and participates in regulation of energy metabolism (Bigham-Sadegh & Oryan, 2015; Marolt, Knezevic, & Vunjak-Novakovic, 2010).

According to a study, an infant is born with 270 bones and the number decreases to 206 at the adulthood age (Lockwood, 2018). Bones are classified into four general categories. First, long bones consist of upper and lower extremities, including radius, ulna, femur, humorous, tibia, fibula, metatarsals, metacarpals and phalanges. Second, short bones include tarsals and carpals, which provide support and stability to the body. Third, flat bones consist of scapula, ribs, pelvis, cranium and sternum. These bones are attached to the muscles and give them stability. Fourth, the non-uniform bones, which include sacrum, mandible and vertebrae, and they are also called irregular bones (Clarke, 2008).

The present study focused only on one aspect of the orthopedic trauma i.e. Fractures of long bones. The current study tried to explore the psychological distress like PTSD and dysfunctional schema mode that occur after orthopedic trauma, especially fracture of long bones. The aim of the present study was to focus on open and closed fracture of long bones. The fracture is defined as the complete or partial loss or breakdown in the anatomic continuity of bone, which bring functional instability in bone (McRae & Esser, 2008; A. Oryan, Monazzah, & Bigham-Sadegh, 2015). It may be completely fractured in different ways like lengthwise, crosswise and multiple pieces (Mistovich et al., 2011). The Bones are rigid, but they may get bend to some extent when external force is applied. However, when force is applied to a great extent, the bones will get break. The severity of fracture depends on the external force applied and the breaking point of bones, which ranges from slightly to complete break of bone (surgeons, 2012).

There are several types of fracture as described in various studies, but in the current study, the focus was made on some important categories of fracture. The bone fracture that is caused due to trauma or disease is called macro-fracture, the macro-fracture occurs

due to accumulation of micro-fracture. The micro-fracture is a partial fracture of bone, and continuous loading on micro- fracture leads to macro-fracture which is also called stress fracture (A. Oryan et al., 2015; Ulstrup, 2008). Similarly, on the bases of characteristics, bone fracture can be classified into shape or pattern including, spiral, transverse, oblique, and comminuted, whereas the type of classification may also be made as greenstick, gunshot, crushed and avulsion fracture.

Furthermore, when it comes to etiology, fractures are classified into three main types like pathological, fatigue and trauma, whereas on the basis of nature, the fracture is classified into two types i.e. closed and open fractures (Oryan, Alidadi, & Moshiri, 2013). When breakage or loss in continuity in bone occurs without damage of the skin or wound at the site of broken bone, then it is called a closed fracture, whereas, of there is a wound or break of skin near the area of broken bone, then it is called an open fracture or compound fracture. There is a higher chance of infection in open fracture as compared to closed fracture (Adjei; surgeons, 2012).

The fracture may either occur due to traumatic or non-traumatic (pathological) causes. The traumatic fracture is due to external or mechanical force, such as RTA, fall, assault and sport injury, while pathological fracture occur as a result of certain types of diseases such as diabetes II, bone cyst, nutritional hyperparathyroidism, osteomyelitis and neoplasia (Giangregorio et al., 2012). The common symptoms of fracture include, pain, swelling, tenderness, loss of sensation and motor activities in case of damage of nerve and vessel. The severity and pain of fracture depend on its location, types and causes (Duckworth & Blundell, 2010).

Initially, fracture is diagnosed through clinical examination. For further investigation radiograph and advance technology are used, such as, X-ray, MRI, CT. Scan and bone scan. The application of radiograph may also help in surgery procedure (Duckworth & Blundell, 2010; Tornetta III, Ricci, & McQueen, 2019).

Approximately 2.8 million people suffer from orthopedic injuries per year (DeFrances, Golosinskiy, Hall, Schwartzman, & Williams, 2010). The RTA is the leading cause of death under the age 15-29 years, which brings multiple disabilities and affects the productive years of individual. In Pakistan the traumatic fracture patient's ratio of male to female is 3:1, which is higher than developed nations like Norway, where the same ratio is about 2:1 (Meling, Harboe, & Søreide, 2009). The high rate of traumatic fracture in men seems to be the result of men being more involved in car driving and motorbike riding, while women mostly staying inside home. It is observed that the majority of males in Pakistan are careless in driving, which leads to accidents. In most cases of the accidents, motorbike is involved 86%, while in the United Kingdom the ratio is less than Pakistan such as 12% in the year 2012 (Gill, 2016). One of the studies conducted in Lahore in 2014 shows that 56% population suffer from RTA, among this 38% suffered from femur fracture, 25% Tibia, 16% upper limb Radius and Ulna, and 9% humorous fracture. The same study also reveals that 73% patients had close fracture, while 23% suffered open fracture (Gill, 2016). Furthermore, fracture in older people occurs with minimal trauma. The most common reason of fracture in older people or in aging is loss of bone mineral or the loss of bone mass (Association, 2013). The most common fracture, mostly in elderly includes distal radius, neck of femoral and vertebrae (Walker, 2013).

The medical specialist doctors or surgeons generally treat the orthopedic trauma patients. They treat the physical complication and reconstruction of bone in orthopedic trauma patients. Once the treatment is completed the patient is discharged from the hospital, and is allowed to go back home or community. After the completion of successful surgery, the quality of life and psychological wellbeing of these survivors is observed to be poorer than healthy individuals (Castillo et al., 2013).

The previous research shows that higher levels of depression and anxiety exist in orthopedic trauma survivors (Becher, Smith, & Ziran, 2014). The prevalence rate of depression is higher in orthopedic trauma, even right after the injury (Becher et al., 2014). The high rate of depression has been reported in young unemployed minority male patients with pre-existing symptoms of pain (Gironda, Der-Martirosian, Belin, Black, & Atchison, 2009). A study reported that depression level increases in women of post-menopausal hip fracture after fall and other subgroup patients (Van den Berg et al., 2011).

The high rate of depression has been seen in general traumatic population of developed nations (McCarthy et al., 2003), and the rate of depression was found about 45% in US orthopedic population (Crichlow, Andres, Morrison, Haley, & Vrahas, 2006). Depression and PTSD may occur independently, but the prognoses are similar. The combination of both depression and PTSD increase the functional disability (Shalev et al., 1998). The most common comorbidities of PTSD is depression and sometimes the symptoms can overlap with each other (deRoon-Cassini, Mancini, Rusch, & Bonanno, 2010; Ehring, Ehlers, & Glucksman, 2006; Frisch et al., 2013).

A comparative study showed that after the traumatic fracture the children are at high risk of depression approximately 7%-41% than normal healthy children 4.35%-9%

(Mathers & Loncar, 2006). A study reported that depression level is 4.6 times higher in open fracture than closed fracture patients (Crichlow et al., 2006).

After orthopedic trauma, the survivors suffer from depression and PTSD, which affect their physical life. The lower extremity injury in older people restricts the ability and self-care responsibility of an individual. A comparative study revealed that patients with severe trauma and depression were unable to walk up and down the stairs independently as compared to other individuals who had no depression (McCarthy et al., 2003). Moreover, the injured military personnel with depressive symptoms could not take an active role in duties and sports (Frisch et al., 2013).

The orthopedic trauma brings both physical and psychological impairment. The physical impairment may exist for a longer period after trauma, which may bring psychological disturbance (Holbrook, Anderson, Sieber, Browner, & Hoyt, 1999; Sutherland, Suttie, Alexander, & Hutchison, 2011). The most common traumatic events such as RTA, fall, assault, crush injury, sports and machine related injuries trigger the PTSD symptoms (deRoon-Cassini et al., 2010; Williams et al., 2009). The PTSD symptoms may develop in both adults and children (Wallace, Puryear, & Cannada, 2013), however, this condition has been seen in patients from different locations in America (Aaron, Fadale, Harrington, & Born, 2011), Asia (Ozaltin, Kaptanoğlu, & Aksaray, 2004; Sinici, Yildiz, Tunay, Ozkan, & Altinmakas, 2004), Europe (Haagsma et al., 2012; Jones et al., 2012) and African areas (Iteke, Bakare, Agomoh, Uwakwe, & Onwukwe, 2011). The overall, 20%-51% orthopedic trauma patients have experienced PTSD (Aaron et al., 2011).

Moreover, relation between physical injury and PTSD has been observed among young adolescents and children. The rate of PTSD in older adolescents is two times more

than younger adolescents and the ratio was two times greater in girls than boys. Injured adolescents have physical problems and lack of interest in usual activities. After a long period of time the physical and traumatic injuries healed up. Whereas the PTSD may exist in both adult and pediatric patients (Holbrook et al., 2005). One of the studies found that during the hospital care some patients have 60% higher PTSD score than others, after one to six months of discharge from hospital and some of the patients were reported to have same PTSD symptoms, Moreover, some of the patients show improvement and the remaining have, worsen PTSD symptoms (deRoon-Cassini et al., 2010).

It has been observed that individual may also develop PTSD due to amputation. Amputation is an injury which may occur after blast or blunt force, and mostly army personnel are exposed to such types of injuries. The army personnel are exposed to the different stimuli in different situations before, during, and after the trauma that can lead to psychological distress and the severity and onset of PTSD is more challenging in such cases. A comparative study of injured and non-injured soldiers who took part in the same battle, both matched by rank, length of service and military role, the prevalence and severity of PTSD rates were more in injured than non-injured soldiers (Koren, Norman, Cohen, Berman, & Klein, 2005). The prevalence of PTSD among soldiers is 14.8%-26.8% with single lower limbs amputation, and this prevalence rate occurs after 3 years of injury, while the prevalence rate is higher in bilateral lower extremity amputee about 10.3%-12.5% (Frisch et al., 2013).

A study revealed that the prevalence rate of PTSD in early post trauma within 6 months was 36.3%, after 5 years the ratio of PTSD among these soldiers had increased up to 77.2% (Copuroglu et al., 2010). Similarly, the prevalence of delay and long term PTSD

symptoms are reported in military persons who had orthopedic trauma related to war during the 17-year follow-up (Ebrahimzadeh & Rajabi, 2007).

Maladaptive schema mode and PTSD is the main focus of the undertaken study. The present study tried to explore the association between schema mode and orthopedic trauma patients, including traumatic open and closed fracture of long bones. The study also intended to find out the relationship of PTSD and orthopedic trauma patients in the Pakistani context.

Schema Mode

Schema is a psychological construct including, global pattern of belief and thought about self, world, and about other people. The schema consists of limited and well organized information and experiences (Young, Klosko, & Weishaar, 2003). These schemas control our belief system and give rise to an intermediate belief such as attitude, rule, conditional belief and manipulating our perception about events. Similarly, the schema mode is developed when coping style and schema work side by side. It is a cluster of activated schemas related to cognitive, emotional and behavioral conditions and coping styles of an individual at any time. The schema modes are activated by life events, situations and circumstances to which we are too sensitive. Changes in schema mode occur throughout in life, it is self-perpetuating activity and too difficult to modify (Young et al., 2003).

The dysfunctional schema modes occur frequently at the time when several or more of maladaptive schemas are active and these maladaptive schemas are developed during childhood due to toxic experiences. It is a set of non-verbal information including,

memories, body sensation, thinking and cognition developed during childhood and adolescence. To deal with divesting or distressing emotion produced by these schemas, a person develops a maladaptive coping styles (Young et al., 2003).

The schemas are considered stable, while modes change and fluctuate from time to time. The schema is the rigid underlying thought patterns of personality while modes are the manifestations and fluctuating feather of personality (Young et al., 2003).

The schema mode is classified into 14 modes and these 14 are organized and grouped into four clusters.

First, Healthy Adult Mode which is responsible for the proper adult functioning including, parenting, problem solving and harmonious social and sexual relationship, culture and sporting and taking responsibility for pleasurable adult activities.

Second, Child Mode may further be categorized into sub groups like happy child (HC), angry child (AC) vulnerable child (VC), impulsive child (IC), enraged child (EC), undisciplined child (UC). Vulnerable children have feelings of isolation, loneliness, sadness, helplessness, hopelessness, emptiness, incompetence and feeling of being socially unacceptable, while angry child shows aggressive behavior, frustrated and angry behavior. These behaviors are due to unsatisfied emotional and physical needs. Furthermore, enraged child shows feelings of aggression, hurt, damaging and demolishing of properties, while impulsive child tries to fulfill his/her desire in his/her own way without regarding the rights of self and others. He/she acts an in uncontrolled and selfish way. Similarly, undisciplined child has boring personality, can get frustrated easily and has lack of will power to finish the routine work. Furthermore, happy child displays feelings of love, self-confidence,

competence, feelings of peace and courage. He/she is having optimistic and guided personality because his/her emotional desires are satisfied.

Third, Maladaptive Coping Modes are the child efforts to adapt himself/herself with unmet emotional desires in a harmful or destructive environment. The maladaptive coping modes are further classified into sub-types, detached protector (DP), Complaint surrender (CS), self-aggrandizer (SA), detached self-soother (DSS), and bully and attack (BA). The complaint surrender shows fear of rejection, self-insulting way towards others**,** submissive personality, obedience and encouragement, while Detached protector (DP) mode is emotional isolation from others, psychological withdrawn from pain, and rejection of other's help. Furthermore, in detached self-soother (DSS), an individual shuts off his/her emotion and involve in alternate behaviors such as extreme working, gambling, dangerous game, drug abuse and immoral sexual characteristics. Similarly, self-aggrandizer (SA) has the characteristics of self-love and praise, lack of empathy for other people; behaving in a competitive way, and grandiosity. In bully and attack (BA) modes, individuals damage, other people without any fear, verbally, emotionally, physically and psychologically and they are also engaged in antisocial activities.

Last, Maladaptive Parent Mode, in which punitive Parent (PP), is the internalization of parental or other important adult behaviors in one's early life. In such type of mode individuals are angry with themselves and complaint that they are not allowed to express their normal desires. Moreover, Demanding Parent (DP), is a type maladaptive parent mode in which individuals want observance of strict rules and striving for high status and standards for perfectionism (Farrell, Reiss, & Shaw, 2014; Young et al., 2003).

Some literature review shows the relationship of schema mode and personality disorder (PDs). All PDs have correlation with schema mode as narrated by these studies. A study revealed that avoidant personality disorder (AvPD) and borderline personality disorder (BP) was positively correlated with some of schemas questionnaires (SQ) (Jovev & Jackson, 2004). The personality disorders are classified into three clusters.

The cluster "A" is a paranoid personality disorder which positively correlates with the enraged child, angry, and bully and attack child. The cluster "A" have no relation with happy child. Cluster "B" a histrionic PD has positive correlation with impulsive child and, narcissistic PD has positive relation with bully and attack and self-aggrandizer. The borderline personality disorder has positive correlation with child modes including, enraged child, impulsive child, vulnerable child, angry child and undisciplined child. The borderline PD is also positively correlated with detached protector, detached self-soother, complaint surrender, punitive parents and bully and attack. Furthermore, cluster "C" includes, avoidant, dependent and obsessive compulsive personality disorder. The avoidant PD is positively correlated with modes including, undisciplined child, complaint surrender, vulnerable child, punitive parent detached protector, while Dependent PD has positive correlation only with vulnerable child and undisciplined child and negatively correlated with healthy adult. Moreover, obsessive compulsive disorder is positively correlated with demanding parents, detached self-soother and self-aggrandizer (Lobbestael, Van Vreeswijk, & Arntz, 2008).

One of the studies showed that patients having eating disorder frequently use the maladaptive schema mode and less frequently use the adaptive schema as compared to other people of community (Talbot, Smith, Tomkins, Brockman, & Simpson, 2015). A

study conducted on clinically depressed, previously depressed and never depressed through young schema questionnaires in which it was observed that clinically depressed and previous depressed people differed on early maladaptive schemas, character traits, and temperament in comparison to never depressed people (Halvorsen et al., 2009).

Moreover, a mega case study of dysfunctional schema mode and frontal lobe lesion and temporal lobe epilepsy shows positive correlation. The same study revealed that frontal lobe lesion and temporal lobe epilepsy patients have positive correlation with maladaptive coping styles, while negative correlated with healthy adult mode (Zaman & Khalily, 2016). The existing study tried to investigate the maladaptive schema modes and coping style of ABI patients. It also tried to assess the relation of PTSD in orthopedics trauma and ABI patients. The next section describes the PTSD in detail.

Post-Traumatic Stress Disorder (PTSD)

The PTSD diagnostic criteria were revised in DSM-5 (APA, 2013a). Before DSM-V, the PTSD was considered an anxiety disorder. In DSM-V the criteria of PTSD shifted from anxiety disorder to a new trauma or stress related disorder. PTSD is a psychological disorder that can develop in some individuals after facing or witnessing trauma or catastrophic events. According to American Psychiatric Association (APA) traumatic experiences are the events involving direct or indirect exposure to death, sexual violence, serious injury and actual or threaten death (APA, 2013b). The trauma includes natural disaster, man-made disaster, sexual abuse; physical injury and life threatening illness. The natural disasters include earthquake, flood and other traumatic events while, man-made disaster caused directly and intentionally by human actions include, fire, bomb blast, nuclear explosions, transport accidents etc (Chrisman & Dougherty, 2014). The PTSD was

first time included in diagnostic nomenclature of the American Psychiatric Association in 1980 (APA, 1980).

The diagnosis of PTSD is measured only in terms of serious trauma in which the person has directly witnessed or experienced the events that have actual or threaten death, sexual violence or serious injuries. The PTSD would not be diagnosed after the distressing events such as failure in an examination, divorce and economic loss. In these cases, it would be considered adjustment disorder (WHO, 1992).

Symptoms

The PTSD is characterized by a variety of symptoms e.g. distressing and stressful thoughts, images and feelings that repeatedly occur after traumatic events and the persistent avoidance and emotional numbness, the distressing experience which is no longer than one month and causes impairment in social and occupational functioning According to DSM-V, PTSD symptoms are grouped into four categories, intrusive symptoms, negative alterations in mood and cognition, avoidance, and change in arousal and reactivity in response to trauma (APA, 2013a).

First, in intrusive symptoms, the person may have repetitive memory nightmare of the traumatic events, flashback and recurring of involuntary memories. Second, avoidance from associated stimuli of events and the person tries to avoid or suppress such types of reminders. Third, the cognitive change and other signs of mood after trauma and the inability of a person to remember the important aspects of life. These also include persistence of negative cognition, lack of interest; blaming self or others, negative emotion and inability to experience positive emotion. Last, increased symptoms of reactivity,

including aggressive behavior, self-destructive, sleep disturbance, and difficulty in concentration. If these symptoms persist for more than one months after trauma then PTSD is diagnosed, whereas as if these symptoms last for more than three months then it is considered a chronic disorder, if the PTSD symptoms do not appear after 6 month of trauma then it is called delay onset condition (APA, 2013a).

Additionally, if the symptoms persist for one month after trauma, it may cause functional and behavioral disability. The functional disability includes confusion, decision making, memory impairment, and concentration problems, while behavioral disability includes, intimacy problems, social withdrawal, reduced educational performance. and work related problems (APA, 2000). Furthermore, PTSD may also carry somatic complications such as insomnia, hyper arousal, headache, gastric problems, cardiovascular, and musculoskeletal disorder (Jaffee, Stokes, & Leal, 2007).

Re-experiencing symptoms, intrusive thoughts and nightmares are the central features of PTSD which are also the symptoms of TBI and the coexistence of TBI and PTSD symptoms may arise controversy. The PTSD cause anxiety, distress, and variety of problems related to cognition, learning, attention and concentration difficulties, forgetfulness and slowing speed processing, which are also the signs of TBI. In the same way personality changes such as aggression, impulsiveness, lack of motivation, and insight caused by TBI may also mistakenly diagnosed as PTSD. In a study, differential diagnosis, the number of symptoms of PTSD and post-concussion overlapped with each other, such as insomnia, poor memory and concentration, anxiety, anger and depression (Hickling, Gillen, Blanchard, Buckley, & Taylor, 1998; McGrath, 1997). For differential diagnosis of

PTSD, a complete history is required. Getting accurate information, psychological and neurological factors may help in diagnosis, detection and treatment.

Incidences

In United State about 7 to 9 percent normal community people suffered in lifetime PTSD (Yehuda, 2004). PTSD occurrence rates is found approximately, from 3 to 30 percent in people exposed to a particular type of trauma such as rape, combat, and distress (Jaffee et al., 2007). Exposure to war is one of the factors that has been recognized as being related to the increased the risk of PTSD. According to an analysis, 30 percent male shows life time PTSD who served in southeast Asia during 1965-1975 Vietnam war, as compared to general population which show 5 percent life time PTSD incidence rate (Koenen et al., 2002).

In addition to it, high rate of PTSD is identified in war exposed military personnel, and similarly risk for PTSD is found higher in military personnel who received physical injury (Koenen et al., 2005). For example, the PTSD rate was two to three times higher among soldiers who received particular injury during Vietnam Veterans as compared to non-injured soldier (Marmar et al., 2015; Pitman, Altman, & Macklin, 1989). One of the studies conducted on soldier with similar demographic background, who were exposed to same war situation in Israel during 1998 to 2000, the result indicated that 17 percent injured soldier developed PTSD, whereas 2.5 percent of non-injured soldier with same demographic background developed PTSD (Koren et al., 2005). Furthermore, exposure to nonmilitary situation may also be responsible for PTSD. PTSD rates increase up to 26% in non-military environment such as individuals exposed to assaultive crime or witness to murder and shooting compared to other trauma among large US adult women (Resnick,

Kilpatrick, Dansky, Saunders, & Best, 1993). The estimated prevalence rates of PTSD symptoms differ in TBI patients from 0 to 50 percent on the basis of various studies conducted (McMillan, 2001). A study revealed that PTSD incidence rate is found about 20 to 40 percent among head injury patients (Harvey, Brewin, Jones, & Kopelman, 2003).

Furthermore, a study conducted on 120 Israelis having TBI due to motor vehicle accidents (MVAs), reported that about 14 percent TBI patients developed PTSD after 6 months of trauma (Gil, Caspi, Ben-Ari, Koren, & Klein, 2005). Moreover, study on US population revealed that 13 percent PTSD was found in mild TBI after 3 months of injury, primarily involving MVAs, and assault or fight (Levin et al., 2001). PTSD symptoms may develop in TBI patients and it depends on the duration and existence of post-traumatic amnesia (PTA). The discussion still continues as to whether PTSD develops after TBI in which amnesia about the traumatic events occurs (Klein, Caspi, & Gil, 2003). A study reported that PTSD did not occur without LOC (Martin, 1997). Another study reported that PTSD develops without the presence of PTA (Feinstein, Hershkop, Ouchterlony, Jardine, & McCullagh, 2002; Harvey et al., 2003; Hickling et al., 1998; McMillan, 2001). A study demonstrated that 27 percent patients with TBI without LOC developed PTSD, whereas 1 to 31 percent patients developed PTSD who remained unconscious for more than 12 hours (Glaesser, Neuner, Lütgehetmann, Schmidt, & Elbert, 2004).

Etiology of PTSD

Although, most of the individuals face a traumatic stressor at least once in their life history, even some of the individuals encounter traumatic events several times, but every individual do not develop PTSD (Breslau, 2002; Kessler et al., 2005). The question arises whether PTSD symptoms develop in people that have never been exposed to or experience

traumatic stressors. One of the studies shows that people encountering distressing events such as break up/ divorce, economic loss, chronic disease, but having no traumatic experience may develop higher PTSD symptoms (Anders, Frazier, & Frankfurt, 2011; Mol et al., 2005). Mild level of PTSD symptoms may be present in non-traumatic stressors, while severe PTSD symptoms occur in traumatic stressors (Mulder, Fergusson, & Horwood, 2013). High and consistent PTSD symptoms may exist in people having no traumatic experiences but these symptoms have less impact on the overall mental states and body-brain response (Poulos et al., 2014) than those having PTSD symptoms due to traumatic stressors.

Psychosocial problems and psychiatric disorder like PTSD has multiple causes (Carlson, Dalenberg, & Muhtadie, 2008), such as nature, person's inherited biological and psychological traits and characteristics, and nature including social and environmental factors which promote or restrict healthy adaptation or illness, learning or disabilities. Regardless of the role of traumatic exposure in PTSD, there is valid scientific evidence that other risk factors may also be responsible for developing PTSD, when such risk factors have occurred to an individual.

These risk factors are categorized into three groups. Figure 1 provides an overview of a causal model.

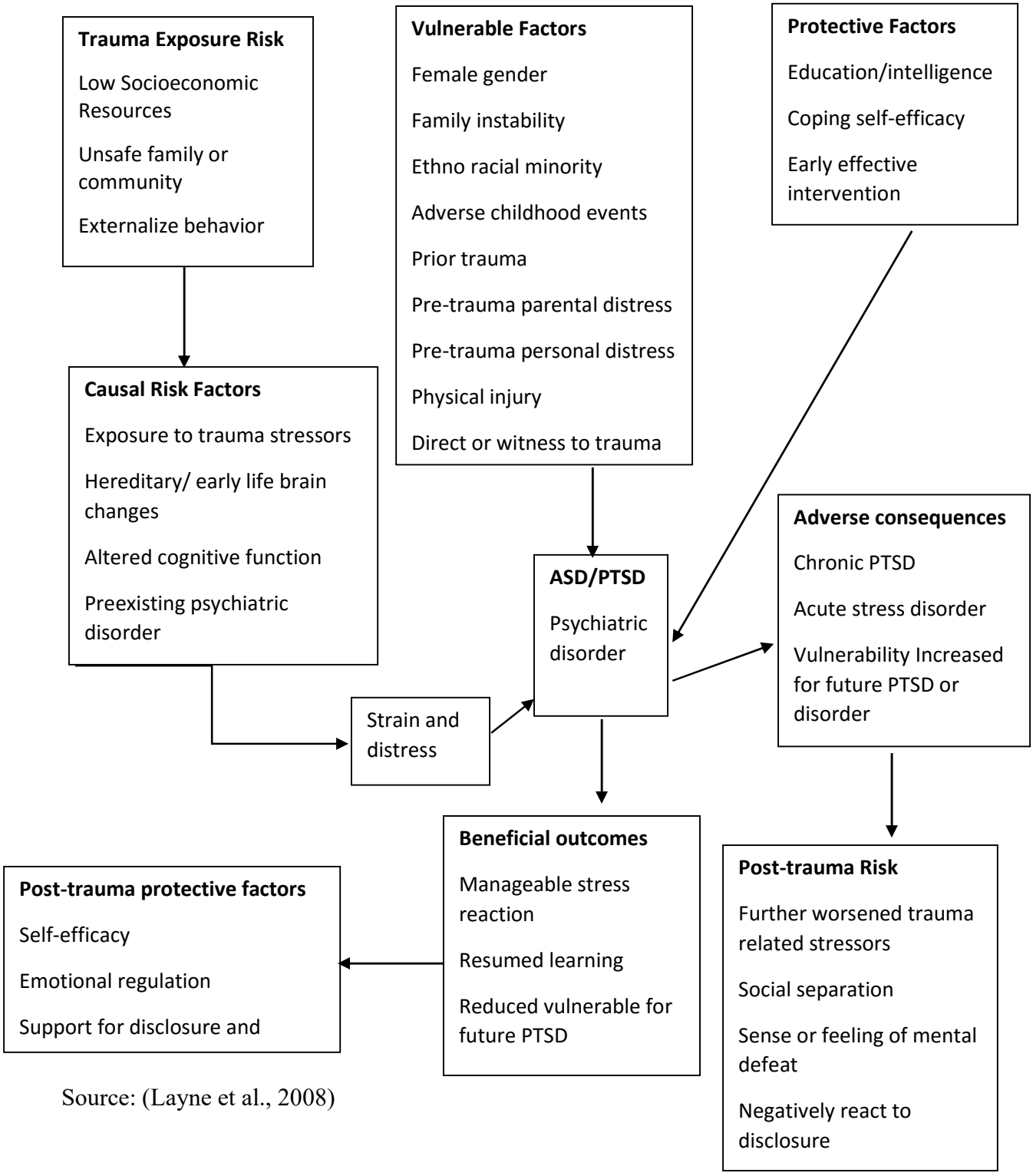
First, disease and exposure to trauma are presumed to be the first causal risk factors which are responsible for developing PTSD. These causal factors directly affect biological and psychological health which increase "strain" in individual resources such as reducing the capacity of immune systems or increasing the hopelessness.

Second, environmental and individual aspects are the vulnerable factors that make the person prone to experience or develop PTSD vulnerable factors, including the environmental or individual aspects that make the persons more probable to experience the causal factors or develop the problem or disease after experiencing the causal factors, e.g. age is the vulnerable factor which often increases the distress but decreases the resilience about adverse consequences.

Third, outcomes risk factors probably increase the adverse consequences. The presence of outcomes risk factors leads to prolong and severe symptoms of PTSD. For example, HIV level in circulatory system and continuous insecure exposure to HIV are considered to be the outcomes of risk factor. Many PTSD outcome factors are related to prolonged PTSD symptoms, whereas the protective factors are the counterbalance of risk factors which increase the resistance ability of a person. In other words, protective factors may increase the resilience of a person in coping and improving oneself from adverse consequences or outcomes.

Figure 1

Theoretical Background



Source: (Layne et al., 2008)

The causal risk factors for PTSD have been continuously reported in scientific studies as the degree of exposure to traumatic events (Brewin, Andrews, & Valentine, 2000; Ford, Elhai, Ruggiero, & Frueh, 2009; Vogt, King, & King, 2007). The term named "dose response relationship" shows that in case of greater exposure to harm; one is more prone to PTSD. No specific way was defined to assess the degree and amount of exposure to traumatic stressors. It is not so easy to say that some actions or events are more horrifying, worse or hurting than others. Exposure to events or dose is defined and measured differently by various studies (Vogt et al., 2007). The dose or exposure may be defined thus as the level of threats or danger severity to an individual's or someone else's life (Ozer, Best, Lipsey, & Weiss, 2003). It may also be defined as the level and degree of destruction to one's home, family or society due to natural or man-made disaster (Norris & Slone, 2007), whereas, the dose of response may be stated thus; the subjective response to terror and horror (Brewin et al., 2000; Bryant & Guthrie, 2005).

When people are experiencing a number of trauma or stressors continuously or once, over a period of several days, months or year, they have a collective impact (Ford & Courtois, 2013). Three different theories and researches have been identified to understand the collective impact of traumatic stress; traumatization, adverse childhood experience, and poly victimization. Re-traumatization is the multiple exposure to traumatic stressors or events which increase the risk of PTSD development and related physical, social, and psychological health problems among children across the life span (Follette & Vijay, 2008). However, Re-traumatization has not been exactly defined and there is no specific time and place for the trauma to occur again for re-traumatization. Once the psychological trauma has been experienced by an individual then any subsequent traumatic exposure may

result for the occurrence of re-traumatization. It is not necessary that the environmental or contextual traumatic series are required to be similar or different at the time of traumatic event. In case the child sexual abuse is the first traumatic experience, re-traumatization may occur in different form of exposure to traumatic stressors such as interpersonal violence, war, or natural disaster (Whitfield, Anda, Dube, & Felitti, 2003). Furthermore, a study revealed that repeated and continuous exposure to the same or different psychological trauma may develop PTSD symptoms more severe than single exposure to trauma (Follette & Vijay, 2008).

Adverse childhood experiences (ACE) may also increase problems related to physical and mental health in adulthood (Anda, Butchart, Felitti, & Brown, 2010). An information base study was conducted on 17,000 young and adult who completed health screening test, while receiving health care services. The Participants responded to 10 items with yes or no option regarding health screening questionnaire; which they had experienced before the age of 18. The health screening questionnaire included physical, verbal, and sexual abuse items. Furthermore, it also included physical, emotional neglect, witness to domestic violence, relatives in police custody, parent using alcohol, and those who had lost their parents due to death or divorce. The result indicates that about 2/3 participants suffered at least one ACE, whereas 1/6 participants reported more than four ACE. Moreover, the study also reported that traumatic adverse childhood experiences are having higher proportions, about 18% male and 25% female experienced child sexual abuse, whereas 22% male and 20 female reported Child Physical Abuse (CPA). Similarly, the same study also reported that 12% male and 15% female experienced witnesses of maternal violence (Anda et al., 2010).

Poly-victimization is similar to the adverse childhood experience. The poly-victimization criteria are applied on average for those who were victimized four time in the year (Finkelhor, Ormrod, & Turner, 2007). Poly-victim children encounter adversity through a number of contexts such as bullying by peers, physical and emotional maltreatment by caregivers, sexual abuse by caregivers; and traumatic incidence at home, school or community (Cuevas, Finkelhor, Clifford, Ormrod, & Turner, 2010). One of the studies reveal that previous experience to traumatic events was linked with greater risk of PTSD. Multiple previous traumatic events had a stronger effect than a single previous event. The study also examined that several features of previous traumatic events, containing assaultive abuse or violence during childhood were more likely to develop PTSD as compared to trauma during adulthood. Furthermore, single or multiple past traumatic events during childhood were linked with greater risk of PTSD in adulthood (Breslau, Chilcoat, Kessler, & Davis, 1999).

The exposure to causal risk factors has some common denominators. First, it may be the actual disease, physical trauma, or injury, and violation. The violation may be implicit or explicit including sexual abuse and disfigurement. Moreover, some exposure to causal risk factors include, eyewitness to death of close relative and sudden or accidental death of primary relationship. Second, denominator of causal risk factors consists of horror and terror. The horror is produced through extreme violation e.g. sexual abuse or assault, while terror occurs due to extreme violence including combat or war and torture (D'andrea, Ford, Stolbach, Spinazzola, & van der Kolk, 2012). Although, the subjective reaction of individuals will be different in response to terror or horror events. Several studies reported that more extreme violence or violation that is intentionally imposed on victims is highly

linked directly or indirectly to terror or horror (Marx, Forsyth, Gallup, Fusé, & Lexington, 2008).

Third, common denominator of causal risk factors is the sudden, unpredictable and uncontrollable stressor, which occurs suddenly and has little warning for the individuals either to protect physically himself /herself or to psychologically prepare for a negative consequence (Carlson et al., 2008). If these unpredictable, sudden, and uncontrolled stressors are too large that individual are unable to control the consequences or outcomes of the events, then these three stressors may take the person by surprise and create negative valence which leads to disbelief, shock and confusion.

The potential causal risk factors include pre-existing psychological disorder or illness. Individuals with severe mood disorders like depression, anxiety, bipolar, obsessive-compulsive disorder, panic disorder, psychotic disorder such as schizophrenia, dissociative disorder and personality disorder, eating disorder mostly report a history of psychological trauma and also the history of PTSD of both past 14-66% and current 12-35% (Mueser, Essock, Haines, Wolfe, & Xie, 2004). Moreover, adult with psychiatric disorder, also reported the history of trauma victimization such as sexual abuse, and domestic violence (Neria, Bromet, Sievers, Lavelle, & Fochtmann, 2002; Sells, Rowe, Fisk, & Davidson, 2003). Similarly, adult with psychiatric disorder not only results in developing PTSD symptoms in adult, but may also become the leading cause of severe symptoms of impairment of social and work problems (Mueser et al., 2004).

Furthermore, the mild psychiatric disorder or mental illness may also be a risk factor for developing PTSD. A study showed that injured soldier during placement were reported to have developed PTSD with 2.5 times ratio, if these soldier had any previous

history of psychiatric illness prior to injury; and the injury severity level was also positively correlated with PTSD. In this case the relationship of injured soldier during deployment to PTSD was found to be one-tenth as strong as seen in prior psychiatric illness (Sandweiss et al., 2011). Moreover, another study revealed that patients with psychiatric illness have a history of personal psychological traumas such as abuse in early childhood. They also reported about anxiety, paranoia, depression, hostility, hallucination, mania, dissociation, and agoraphobia and somatoform disorder which were more probably to occur after developing PTSD (Leverich et al., 2001; Lysaker, Meyer, Evans, Clements, & Marks, 2001; Lysaker, Nees, Lancaster, & Davis, 2004; Perkonigg, Kessler, Storz, & Wittchen, 2000).

However, the other possibility is that people with psychiatric disorder symptoms might be vulnerable to PTSD or a severe causal risk factor for developing the PTSD (Perkonigg et al., 2000). The findings of several studies revealed that family, emotional, and behavioral problems are responsible for PTSD and psychiatric illness (Copeland, Keeler, Angold, & Costello, 2007; Inslicht et al., 2011; Koenen, Moffitt, Poulton, Martin, & Caspi, 2007; Roberts, Gilman, Breslau, Breslau, & Koenen, 2011). Several studies reported that behavioral and emotional problems mostly found in psychiatric patients include anger, rumination, and anxiety are also the risk factors for developing PTSD (DiGangi et al., 2013).

The hypothesis may be said to have the indirect support of psychiatric or mental illness which may act as a risk factor for the development of PTSD, while comparing the result of brain scan of PTSD with other psychiatric illness such as depression (Gotlib & Hamilton, 2008) schizophrenia (Brunet-Gouet & Decety, 2006), dissociative disorder

(Peres, Moreira-Almeida, Caixeta, Leao, & Newberg, 2012), and personality disorder (Reinders et al., 2014).

After going through the aforementioned studies, it may be stated that the specific numerous changes in different brain area have been found in PTSD with alteration. The changes in different areas of brain have been recorded, as abnormal, neural activities or size relating to emotional distress (e.g. limbic or amygdala system), impaired activation in emotion regulation, and executive decision involving brain region (prefrontal, dorsolateral and medial cortices), changes in perceptual and cognitive information such as thalamus and hippocampus. These brain areas and psychological functions may have altered or impaired in PTSD (Karl et al., 2006; Weniger, Lange, Sachsse, & Irle, 2008).

In addition to it, hereditary predisposition may also be a potential causal risk factor for PTSD. It may cause structural and functional changes in brain and might be responsible for specific PTSD symptoms. A study of twin and family reported that PTSD may be genetic and people may be predisposed to develop PTSD (Goenjian et al., 2008; Guffanti et al., 2013; Liberzon et al., 2014; Sumner et al., 2014; White et al., 2013). The heritability of PTSD does not mean that individuals who bring the same hereditary information will automatically develop PTSD, but one member of a twins or family, who have few similar genes or complete genetic similarity may develop PTSD (White et al., 2013). It has also been reported that PTSD may develop in other twin or family member who has no previous history of PTSD.

Moreover, the same genes linked with depression, anxiety disorder, and substances abuse or alcohol dependence may also be related to PTSD, because most of the time, the same genes contribute to the development of PTSD, anxiety, and depressive disorder

(Koenen et al., 2005). Similarly, genetically transmitted alternation such as emotional regulation and cognitive ability are responsible for the risk of PTSD (Harrison & Tunbridge, 2008; Kremen et al., 2007). These psychological functioning problems are related to specific processes and structure of brain. It may increase the exposure to traumatic events or may reduce the emotional coping ability towards stressors of impaired person.

Additionally, it has been observed that two biological characteristics (hypothalamic pituitary- adrenal dysregulation and changes in functioning and size of hippocampus) are responsible for developing PTSD. First, lack of secretion of a brain chemicals (cortisol) turn down the stress responses. According to these findings, PTSD may develop biologically due to stress response system and this system cannot be slow down. One of the studies conducted on Swedish soldiers revealed that the soldiers who have lower level of cortisol were at high risk of probabilities to develop PTSD (Eriksson, Eriksson, & Thorell, 2001). Second, functional and size alteration of hippocampus may lead to PTSD. The hippocampus is a brain area which is responsible for the autobiography of memories. Several studies have shown that smaller hippocampus lead to PTSD (Astur et al., 2006). According to a study, loss of neuron hippocampi is associated with chronic stress and PTSD. The loss of neuron may cause atrophy in the hippocampus (McEwen & Gianaros, 2010). However, some researches did not encourage the hypotheses that the developing of PTSD occur due to hippocampus atrophy (Neumeister, Henry, & Krystal, 2007).

A study of twins revealed that size of hippocampus (smaller hippocampi) may be a risk factor for developing PTSD. The smaller hippocampi is not by birth or inborn, it may be due to prenatal complications and environmental problems in early childhood. These

problems include, nutritional deficiency, exposure to poison or toxin, and disturbance in maternal hormones during the stage of utero and infancy brain development (Woodward et al., 2007).

Indeed, the alteration in active memory and schema might cause the persistence of PTSD (Ehlers & Clark, 2000). A theory about cognitive processing is that a human being has two modes of information processing. One is the personal life story which recalls autobiography and brief verbal memory based on conscious awareness called verbal accessible memory (VAM). The other information processing is situational accessible memory (SAM), it is automatic and non-conscious storage of memories. The SAM gets information in sensory form and body reactions to experiences including, body images, sound, and bodily feeling. Both SAM and VAM are the unique sources of information processing that collectively provide meaningful memories in every life experiences (Brewin, 2001).

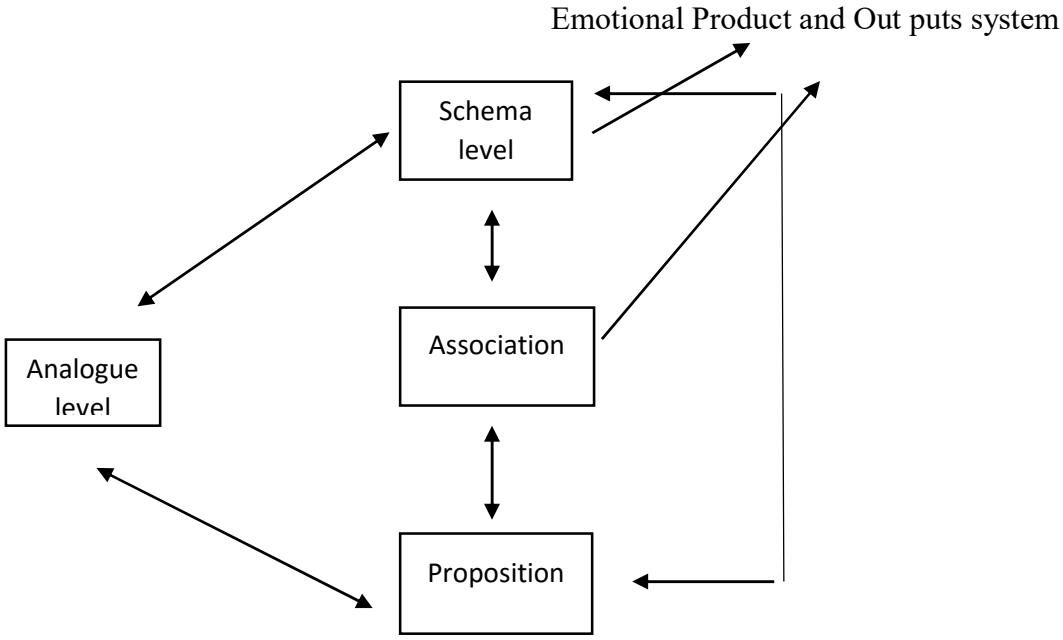
It is hypothesized that traumatic experiences create imbalance between the SAM and VAM, and when the SAM dominates then the VAM becomes weak. It is consistently found through research that when VAM is disturbed then the SAM gets relatively improved, the young adult reported more intrusive memories when SAM is interrupted while VAM is intact (Holmes, Brewin, & Hennessy, 2004). Both VAM and SAM are the consistent cognitive processes related to brain activation pattern that have been diagnosed in healthy trauma survivors, non-traumatic individuals (VAM), and individuals with PTSD (SAM) (Brewin, 2001).

Moreover, all elements of these information processing theories were incorporated by other theoretical model (SPAARS), schema, propositional, analogue, and associational

representational system. According to this model, PTSD occur due to alterations in schemas, propositions including basic beliefs similar to (VAM) and alteration in analogue including non-verbal knowledge comparable to (SAM). The sufficient changes in these information processing may lead to change in individual's basic association representational system, which cause PTSD (Dalgleish, 2004).

Figure 2

Theoretical Background



Source:(Dalgleish, 2004).

Some studies have also shown that children with low verbal IQ (Betts, Williams, Najman, Bor, & Alati, 2012; Koenen et al., 2007), or adult verbal IQ (Orr et al., 2012; Parslow & Jorm, 2007) and cognitive processing and memory abilities have a high risk to develop PTSD (Parslow & Jorm, 2007). The pre and post events factors have been studied to serve as a vulnerable factor for developing PTSD. The individual's characteristics, social, and community environment before exposure to traumatic stressors is highly related to the subsequent development of PTSD (Vogt et al., 2007).

Furthermore, family background to psychiatric disorder (Inslicht et al., 2010), family instability (Copeland et al., 2007), pre-traumatic personal distress (Sugar & Ford, 2012), pre-traumatic parental distress (Lambert, Holzer, & Hasbun, 2014), pain and physical injury (Norman, Stein, Dimsdale, & Hoyt, 2008), and pre-traumatic dissociation (Sugar & Ford, 2012) may have small or less statistically significant positive association with developing PTSD (Brewin et al., 2000; Ozer et al., 2003).

Along with, causal and potential causal risk factors, clinician and scientific researchers try to reduce these risks of PTSD. They have identified three types of protective factors. The first, protective factor is intelligence (Macklin et al., 1998), education (Schnurr & Green, 2004), and the ability to read (Storr, Ialongo, Anthony, & Breslau, 2007). This does not mean that intelligent, smarter and educated individuals are not vulnerable to develop PTSD, but the epidemiology of PTSD shows that children and adult of all levels of intelligence, education and reading abilities can develop PTSD. Second is protective factors self-efficacy (Benight, Ruzek, & Waldrep, 2008). Self-efficacy is the inner personal belief or one's ability to effectively achieve the goals, cope and handle challenges (Benight et al., 2008). Third protective factor against the PTSD is social support. Social support is

of three different kinds; emotional care, informational, and tangible support. These kinds of support and care are linked with family, spouse, relative, and friend's co-workers and neighbors are also helpful to create resilience in recovering from PTSD (Kaniasty & Norris, 2008).

Epidemiology of PTSD

It has been estimated that 60-90% general population of Asia, Africa, North and South America, Europe and Australia have at least one type of trauma in their lives history (Atwoli et al., 2013; de Vries & Olff, 2009; Kawakami, Tsuchiya, Umeda, Koenen, & Kessler, 2014; Kilpatrick et al., 2013; Mills, 2011). Although, the majority of people have developed PTSD after traumatic experiences and most of the peoples among them recovered easily within 3 to 6 months (Foa, Riggs, & Gershuny, 1995; Yehuda & LeDoux, 2007).

The worldwide prevalence of 12-month period for PTSD is relatively low – 0.4 to 3.8% (Karam et al., 2014). The differences in prevalence rate of PTSD throughout the world might be linked to the different ethnic group and the level of exposure to trauma (Roberts et al., 2011). The role of political and geographical location is very important in the occurrence of PTSD, for example, people living in the war zone (Pham, Weinstein, & Longman, 2004) or regions, where natural disasters occur more frequently are prone to PTSD (Galea, Nandi, & Vlahov, 2005).

Moreover, PTSD level increases in the internally displaced ethnic minorities (Thapa & Hauff, 2005) and refugees (Gerritsen et al., 2006). A Previous study showed that women develop more severe PTSD symptoms as compared to men, however, the gender

differences was very small in age ranged 18-24 and older than 55 age group (Kobayashi, Sledjeski, & Delahanty, 2018). One of the studies showed that when men and women encounter same type of traumatic events, women report more PTSD symptoms than men (Gavranidou & Rosner, 2003). In addition to it, highest prevalence rate of PTSD was found in men before the age of 40 and in early 50 for female (Ditlevsen & Elklit, 2010).

Furthermore, a study showed that PTSD symptoms were more in women than men, and the symptoms level increases in younger people than older. The findings of the study showed that low income and urbanization may also play a vital role in PTSD screening (Parto, Evans, & Zonderman, 2011). One of the studies revealed that socio-demographic risk factors such as low education, race, and minority ethnic groups were more associated with PTSD (Xue et al., 2015). Another study showed that higher spousal communication and martial satisfaction during deployment in soldier lead to lower level of PTSD (Carter et al., 2011).

Moreover, PTSD is one of the most common psychological disorders, approximately 6.8-7.8% US general population have lifetime PTSD (Kessler et al., 2005). The ratio is higher in the region of civil disorders or armed conflicts (De Jong et al., 2001). PTSD is commonly persistent and causes serious economic and social functioning impairment (Galovski & Lyons, 2004; Taft, Schumm, Panuzio, & Proctor, 2008). In addition, it may also increase the rate of mortality due to other causes including accident, poisoning, intentional injuries and homicides (Boscarino, 2006).

Mental health professionals, Clinicians, and researchers have diagnosed the association between psychological stress and physical health. A large number of observational studies revealed that PTSD has strong relation with mortality and

cardiovascular disease. Recently, it has been observed in a number of studies that CVD may also cause PTSD, about 1 in 8 acute CVD patients (Edmondson & Cohen, 2013). Furthermore, normative aging study revealed that increase in the severity of PTSD symptoms have been related with increased risk of coronary heart disease and arterial damage (Kubzansky, Koenen, Spiro, Vokonas, & Sparrow, 2007). The same findings have been established in women where PTSD symptoms increased the risk of CHD (Kubzansky, Koenen, Jones, & Eaton, 2009). The analysis further expanded whereby nearly fifty thousand women participated in the study. The result showed that increase risk of CVD is more significant in women, who are exposed to trauma and have PTSD symptoms as compared to women; who are exposed to trauma but did not have PTSD symptoms (Sumner et al., 2015).

Among mental health disorder, PTSD is a unique trauma related disorder, which consists of sleep problems. According to Diagnostic and Statistical Manual (DSM-5) (APA), the sleep problem represents two symptoms; one is intrusive cluster symptoms such as recurrent nightmares and second insomnia which is the component of the arousal cluster. These sleep problems are the symptoms of PTSD, while with the passage of time become independent. Insomnia is one of the common symptoms of PTSD; one of the studies reported that 90-100% of Vietnam era Veteran have a sleep disorder (McLay, Klam, & Volkert, 2010). Furthermore, a cohort study of military health shows that 92% soldier with PTSD and active duty have an insomnia, compared to 28% of those without PTSD (Seelig et al., 2010). Nightmare is the intrusive symptom of PTSD. In general population 71% individuals with PTSD were having nightmares (Leskin, Woodward, Young, & Sheikh, 2002). The post-traumatic nightmares are positively associated with dreaming disturbance,

impaired function, and impact of overall PTSD severity (R. Levin & Nielsen, 2007; Littlewood, Gooding, Panagioti, & Kyle, 2016).

A study reported that psychiatric disorder such as depression, generalized anxiety, agoraphobia, and PTSD occur after traumatic injury, approximately 31% patients reported psychiatric disorders after the twelve months of traumatic events (Bryant et al., 2010). A study examined PTSD and depression among severe injured military personnel during and after the hospitalization. The US soldiers were hospitalized carrying serious battle injury. In the 1st month, 4.2 % soldiers had PTSD symptoms and 4.4% had depression; at 4 months, 12.2% military personnel had PTSD and 8.9% had depression; at 7 months, 12% soldiers had PTSD symptoms and 9.3% soldiers had depression. The study found that the early physical problems were strongly related to PTSD and depression (Grieger et al., 2006). One of the studies indicated that the memory of a traumatic event is one of the strong predictors and high risk factor for development of PTSD (Gil et al., 2005).

Pakistan is a developing country which usually has a higher ratio of PTSD as compared to developed countries. The high ratio of PTSD in Pakistan is due to the continuous wave of terrorism and violence going on for the last few decades. A study conducted on earthquake survivors in Khyber Pakhtunkhwa (KP) revealed that 37% people have PTSD and 23% people have PTSD with comorbid depression (Niaz, Hassan, Hassan, Hussain, & Ahad, 2006). One of the comparison between injured and non-injured patients showed that the frequency of PTSD, is high in physically injured people than those who have no physical injuries (Khan, Alam, Warris, & Mujtaba, 2007). A local study conducted on women survivors during the earthquake in KP showed that 81% women suffer from depression; while 94% women developed PTSD (Niaz, Hassan, & Hassan, 2007). Another

local study conducted on flood victims in the region of KP district Nowshera, revealed that 90.8% people suffered from moderate level PTSD and 9.2% had reported severe PTSD (Khattak & Khattak, 2014).

After natural disaster flood in 2010 in Pakistan, a study was conducted in the region of KP and Neelum Valley AJK, which revealed that 35.4% females and 29.2% males have developed PTSD. The same study revealed the negative relationship between age, education, year of marriage and PTSD (Aslam & Kamal, 2016). Another study conducted in Pakistan in KP region reported that there is no role of education, age, and gender in development of PTSD (Khattak & Khattak, 2014). A study was conducted on burn patients in Pakistan, the result of the study showed that female burn patients have more PTSD symptoms and low level of resilience than male (Bibi, Kalim, & Khalid, 2018)

A study conducted in Pakistan on HIV positive patients to measure the depression and PTSD, where the result revealed that HIV patients have positive correlation with depression and PTSD (Rizwan & Irshad, 2012). Another local study conducted in Pakistan in KP region found that due to continuous threat and terrorism, most people in KP suffered from PTSD and depression (Ahmad, Hussain, Khan, Zia-u-Rehman, & Wahid, 2013). Moreover, a study revealed that people working in the emergency medical service in different shifts like morning, evening, and night have developed a moderate level of PTSD symptoms (Kerai et al., 2017). Furthermore, a comparative study between natural disaster and man-made disaster on PTSD revealed that individuals, who were exposed to man-made terrorism developed higher PTSD symptoms as compared to those who experienced natural disaster (Riaz et al., 2015).

Assessment Techniques of PTSD

There are two steps used for PTSD assessments. Firstly, assessment of trauma exposure and secondly, assessment of symptoms clusters. For assessment of trauma exposure, life event checklist LEC is used (White et al., 2013). For assessment of PTSD symptoms, different tools are used. The different assessment tools include bio-psychological measure, self-report measure, and semi structured interview.

Bio-psychological Measures. This measure refers to assessment of physiological responses such as heartbeat, sleep problems, eye contact, and brain structures related to PTSD, like hyper-activation of the limbic system and hypo-activation of the pre-frontal area of the brain along with volume of hippocampus. For such type of assessment and examination, imaging technology are used such as fMRI (Georgopoulos et al., 2010). The advantage of the bio-psychological measure is that it presents physiological symptoms of PTSD in such a way that patients do not need self-report and semi-structure interview. This technique provides objective data about physiological information. The disadvantage of such type of measure is that, it is not available in all clinical settings. It also requires pre-operative training to manipulate the equipment.

Self-report Measures. These are commonly used in clinical settings in addition to research practice. Self-reports are presented in paper and pencil or computer. These instruments evaluate PTSD using the full criteria of DSM and the applicable and administration time last between five to twenty minutes. The self-repot measure can be classified into different categories. Some measure can only assess PTSD symptoms; for example; PTSD checklist (Weathers, Litz, et al., 2013). Some large measure has subscale

for PTSD symptoms such as Minnesota Multiphasic Personality Inventory MMPI-2 (Butcher, Dahlstrom, Graham, Tellegen, & Kaemmer, 1989).

Semi-Structure Interview. These instruments provide a complete assessment of PTSD symptoms and the nature of the trauma in face to face interview. These assessment techniques have standardized prompt questions. The clinician and researcher ask questions from patients and score on a rating scale. Such types of tools administration require training as compared to self-report. These tools are more time taking as they take around 40-120 minutes, which are more than self-report measure.

The current study tried to examine the intensity and frequency of PTSD among individuals with acquired brain injury and orthopedic trauma patients. The aim of the study was to find out PTSD symptoms among traumatic and non-traumatic brain injury patients. It also tried to explore PTSD symptoms among individuals who suffer from orthopedic trauma (fracture) particularly traumatic fracture.

In Clinician Interview CAPS-5, a variety of prompt questions about PTSD symptoms are asked from clients. The purposes of variety of questions about PTSD, to measure multidimensional symptoms about PTSD. It provides help in assessment of both intensity and severity and quantify a cluster of symptoms in a syndrome. CAPS-5 allows the clinician for the assessment of Past-Month, Past-Week and Life Time PTSD. CAPS-5 items reflect DSM-5 criteria symptoms presented in Manuals. The questions are clearly and carefully phrased that assessed the behavior and symptoms of PTSD.

To-day, Assessment methods and clinical presentation of a trauma in developing countries are established. However, cross cultural evaluation and assessment of PTSD and

trauma are still the remaining goal which are yet to be achieved. Little information about adapted instruments for culturally diverse population are available, that may have adverse effects on accuracy and diagnoses (Keyes, 2000). The goal of the current study was to examine the psychometric properties of CAPS-5, used for assessment of PTSD symptoms. Although, CAPS-5 has good research and clinical applicability in diagnosing and assessment of PTSD in English, a few research work on the psychometric properties of translated instruments impedes the abilities to draw some expressive conclusions about the validity and reliability of the instruments.

In this regard, a reliable and valid instrument for trauma exposure was needed. For this purpose, the current study tries to examine the Psychometric properties of CAPS-5 Urdu-Translation. In the current study, it was attempted to translate CAPS-5 from English to Urdu. It was ensured that the translated Urdu version of CAPS-5 is equivalent to original one (English). It is clear that multi-steps of both qualitative and quantitative nature are involved in translation adaptation process. The qualitative method followed in the present study involved semantic, content and technical equivalence. Whereas, quantitative method psychometric properties such as test retest reliability were used.

History and Evolution of CAPS

The CAPS was first created in 1990 at national Centre for PTSD. The comprehensive structure interview was used for assessment of PTSD (Blake, 1994). Several standard techniques were used in making the CAPS, a flexible, reliable, which may evaluate and measure the symptoms of past month and past week using yes/no (dichotomous) or continuous scoring procedure. In final revision the CAPS-1 was used for the assessment of PTSD symptoms over the past months and CAPS-2 was used for the

evaluation of PTSD over past week. Both the versions were published in October 1990. These versions consist of 17 DSM-III-R PTSD symptoms and eight additional items, which evaluate guilt and dissociation. The five items evaluate the global validity, social and occupational impairment, global severity and improvement.

The CAPS has two revisions since 1990, one was published in July, 1998 and the second, was updated between 2013 and 2014 (Weathers, Blake, et al., 2013). In the 1998 revision, different changes were made which reflect the PTSD symptoms according to DSM-IV criteria. Some changes were advised which consist of four major and seven minor changes. The four major changes included a) adding criteria A (exposure to trauma), b) rephrasing the intensity of rating scale anchors, c) the addition of a scale for clinicians to note the degree of emotional numbness and hyper arousal symptoms, d) Six and eight associated symptoms were replaced in order to evaluate the acute stress disorder symptoms. The minor changes included the rephrasing, reordering and rewording some of the items to reflect the DSM-IV criteria exactly.

The CAPS-5 was updated between 2013 and 2014 to reflect the DSM-5 criteria. In previous CAPS a separate frequency and intensity score for each item is maintained, while in CAPS-5, items are rated with single severity score. The intensity is rated with four-point ordinal scale, a) Minimal, b) Clearly Present c) Pronounced, and d) Extreme. In CAPS-5, the intensity and frequency are combined to make severity score. In addition to that, trauma related items are also present in CAPS-5. These traumas related items are rated into three rating scale including Definite, Probable, and unlike (Weathers, Blake, et al., 2013).

Clinician Administered PTSD Scale CAPS-5

The Clinician-Administered PTSD Scale (CAPS) is a diagnostic interview broadly used for the diagnoses of PTSD. The CAPS was established to improve the reliability and validity of assessment of PTSD, and also to improve the diagnosis and severity (Blake et al., 1995). Now, it is a best tool for diagnosis, research, assessment and severity of PTSD (Weathers, Keane, & Davidson, 2001). The CAPS also has some other advantages. First, it can be used to diagnose and measure symptoms severity. Second, it has intensity and frequency for PTSD symptoms. Finally, it consists of highly standard questions and rating scale (Weathers et al., 2001).

The CAPS-5 consists of 20 newly DSM -5 symptoms to assess and measure the severity of PTSD over the past months (Weathers et al., 2017), and to compare the CAPS-IV (Blake et al., 1995) with CAPS –5 (Weathers et al., 2017) several changes were made. The CAPS-5 requires single trauma index for symptoms of PTSD, whereas the CAPS-IV requires three traumatic events for assessment of PTSD. In CAPS-IV frequency and intensity were not measured separately, it gave only severity rating for each symptoms, while CAPS-5 assessed frequency and intensity separately for severity of PTSD (Weathers et al., 2017). The dissociative subtype (depersonalization and derealization) are also included in CAPS-5.

The purpose of using the structured diagnostic interview guide for PTSD is to provide uniform information to the clinicians and researchers. Through interviews an idiographic and interpersonal exchange of information is possible. The main advantage of CAPS-5 over other diagnostic scale is that, CAPS-5 assesses frequency and intensity of PTSD symptoms on separate five-point rating scale (0-4). The CAPS-5 provides a

complete coverage of PTSD symptoms and promotes uniform scoring and administration through a careful way to elicit through rating scale (Weathers et al., 2017). The question may arise why clinician's interview guide is used rather than self-rate scale, the reason for it is that the interview guide provides accurate assessment and clinicians use their clinical expertise to draw a correct conclusion. A quick and regular clinical assessment may be possible through the clinical interview guide, but the interview guide has one drawback as it requires more time along with additional training, that is costly for the clinician. The Clinician Administered PTSD Scale DSM-4, was used for HIV patients in Pakistan (Rizwan & Irshad, 2012). The CAPS was also used for PTSD among trauma survivors in Pakistan (Khalily, Gul, Mushtaq, & Jahangir, 2012).

Structure, Features and Procedures of CAPS-5

The CAPS-5 is a comprehensive tool for assessment of PTSD. It is a structured interview that can be used by clinician, clinical researcher and trained paraprofessional; who have working knowledge of PTSD. The interview takes 45-60 minutes to administer. First, CAPS-5 reflects the DSM-5 criteria symptoms which directly measure the items as presenting in the manual. Second, it has a clear prompt questions and rating anchors with prominent behavioral referents. Third, the rating of the CAPS-5 is based on intensity, frequency and severity. Finally, the CAPS-5 is flexible in assessment and evaluation. It may evaluate the past months, past weeks and lifetime PTSD.

The CAPS-5 consists of Criterion A, B, C, D, E, F, and G. The criteria A assess the trauma exposure. Items from criterion B (1) to criterion E (20) evaluate the PTSD symptoms. The (Criterion F) consists of; item 21 and 22 which measure the onset of symptoms. The (Criterion G), items 23-25 evaluate subjective distress and impairment.

Items 26 – 28 assess the global validity, global improvement and global severity, while items 29-30 evaluate the dissociative subtype. All the items are rated from zero to four-severity scale (absent, mild sub threshold, moderate threshold severe/markedly elevated and extreme/incapacitating) (Weathers, Blake, et al., 2013).

The CAPS-5 not only meets the DSM-5 criteria but is also related to the index of traumatic events. The items 1-8 and 10 are linked to the events. Three ratings are used for trauma relatedness, definite, probable and unlike. In definite, the symptom can be evidently attributed to trauma index, in Probable, the symptoms are possibly related to the index of trauma, and in unlike, the symptoms can be endorsed to the cause other than trauma (Weathers, Blake, et al., 2013).

CAPS Translation in other Languages

The CAPS has been translated into 15 different foreign languages. These translations included Cambodian (Hinton et al., 2006), Bosnian (Charney & Keane, 2007), Farsi (Malekzai et al., 1996; Renner, Salem, & Ottomeyer, 2006), Croatian (Priebe et al., 2010), Dutch (Hovens et al., 1994), German (Schnyder & Moergeli, 2002), Japanese (Asukai, 2003), Portuguese (Pupo et al., 2011), Spanish (Rendon, 2015), Swedish (Paunović & Öst, 2005), Turkish (Aker et al., 1999).

Psychometric Validity of CAPS for English Speaker

More than 20 studies have been carried out to evaluate the psychometric validity of CAPS for English speaking sample. The evidence show that CAPS has internal consistency (>.85) and inter-reliability (>.65). The CAPS has shown total severity score.

0.6 or more to other PTSD measure and it has a strong convergent validity (Blake et al., 1995; Weathers, Blake, et al., 2013).

Rationale of the Study

The objectives of the present study were to examine the dysfunctional schema modes and PTSD in peoples with ABI and orthopedics trauma. ABI includes both Traumatic brain injuries (TBI) and Non-Traumatic brain injuries (NTBI) in orthopedic trauma patients.

Several studies have explored the severity of TBI and post-traumatic amnesia on the epidemiology of PTSD after TBI (Elbert & Schauer, 2002). Patients with mild TBI have developed PTSD, particularly in army personnel and PTSD symptoms may develop in moderate and severe TBI patients. Patients with comorbid PTSD and TBI have sleep problems, cognitive impairment, and depression (Barker et al., 2013).

In Pakistan, the relation of schema modes was seen with different variables. One of the studies revealed the effects of early maladaptive schema in offspring personality having paternal malparenting. The results showed that early maladaptive schema is positively correlated with authoritarian and depressive personality (Batool, Shehzadi, Riaz, & Riaz, 2017). The relation of schema modes was studied with borderline personality disorder and attachment style. The result showed that dysfunctional schema modes is positively correlated with attachment style (Aslam, 2016). Furthermore, dysfunctional schema modes were assessed in epilepsy patients (Shafique, 2018). Similarly, dysfunctional schema modes were studied in frontal lobe and temporal lobe epilepsy (Zaman & Khalily, 2016).

Moreover, the association of early schema and depression among adolescent was also studied (Manzoor, Sial, Manzoor, & ul Haq, 2012).

In this regard, the current study was conducted to find out the association of maladaptive schema modes and PTSD among trauma survivors. As in Pakistan, there is a little published research work in the area of brain injuries and musculoskeletal injuries with schema modes and PTSD. The present study endeavored evaluation and information in ABI and musculoskeletal injured patients. The current study supports current understanding of the neuro-cognitive disorder, PTSD, and cognitive emotional expression of persons with ABI and orthopaedic trauma. The study is helpful in diagnosing and identifying the pre-existing psychiatric illness or symptoms of PTSD and Dysfunctional schema modes of the survivors that go undiagnosed and untreated after his/her brain injury or fracture

The consequences of PTSD symptoms in people with ABI and fracture can result in adverse emotional, physical, cognitive and behavioural symptoms that can influence an individual's personal, social and routine life activities. This study helps health care professionals take preventive measures at the right time. Currently, neuro-rehabilitation choices such as cognitive behaviour therapy (CBT) and acceptance and commitment therapy (ACT) are used for adults with brain injuries. However, these are lengthy and somewhat difficult procedures. There is a need to investigate new rehabilitation models that focus on the role of early experiences and development of core beliefs as well as coping mechanisms. Schema therapy is one such rehabilitation model that addresses these beliefs and coping styles.

Furthermore, early exploration and management of PTSD and dysfunctional schema modes will improve patients' outcomes and reduced the impact of persistent symptoms. The study is also helpful for intra-disciplinary students of neuropsychologist as well as practicing clinicians interested in developing their knowledge. The study may also help the survivors, caregivers, and may advocate for persons with acquired brain injury.

The result of the present study may also be helpful to improve patient care, plans for future treatment, including possible preventive measure, non-pharmacological therapy, and creating a framework that can be implemented by health professional so as to effectively identify and treat individuals, who are with persistent symptoms of PTSD, and symptoms of Dysfunctional Schema Mode. Moreover, research in this field is limited, so the result of the study may assist in preparing the groundwork for possible strategies to enhance psychosocial functioning and will add the existing literature on the neuropsychological profile of individuals with symptoms of post-traumatic stress disorder, and dysfunctional schema mode.

Objectives of the Study

1. To translate and validate Clinician Administered PTSD Interview Guide
2. To find out the relationship between various modes of schemas and symptoms of post-traumatic stress disorder (PTSD) among individuals with acquired brain injuries (ABI) and orthopedic trauma.
3. To see the level of various modes of schemas and symptoms of post-traumatic stress disorder (PTSD) in open and closed fracture.

4. To examine differences in the level of various modes of schemas and symptoms of post-traumatic stress disorder (PTSD) among the individuals with traumatic brain injury (TBI) and non-traumatic brain injury.
5. To explore the differences in schema modes and PTSD symptoms among individuals with acquired brain injuries (ABI) and orthopedic trauma.
6. To investigate the differences in schema modes and PTSD symptoms on the basis of level of age, gender, education, occupation, and monthly income.

Hypotheses

The following hypotheses were developed in the present study.

1. Positive correlation would be seen between PTSD and Dysfunctional Schema Modes in individuals with Acquired brain injury.
2. The Maladaptive Schema Mode would be positively correlated with PTSD in individuals with orthopedic trauma.
3. The level of PTSD and Maladaptive Schema Modes would be greater in individuals with traumatic brain injury than non-traumatic brain injury.
4. There would be significant difference of PTSD and Dysfunctional Schema Modes among close and open fracture patients.
5. The PTSD and Maladaptive Schema would be greater in Multiple Injury than Orthopedic trauma and ABI Patients.
6. The PTSD symptoms would be more in lower limbs fracture than upper limbs fracture.

7. PTSD severity would be higher in maladaptive schema mode than adaptive mode.
8. Maladaptive coping style would be positively correlated with PTSD, and with all types of injury patients.
9. Female patients have greater PTSD, and Dysfunctional schema mode than male patients with all types of injury.

Chapter II

Methods

Study I

Translation and Cross Language Validation of Clinician Administered PTSD Scale (CAPS-5) for DSM-5

CAPS-5 has been translated into Urdu language after getting permission and online training and certificate (see Appendix A). The new version of the scale is assessed through cross language validation.

Objectives

The main purpose of the current study was to assess the maladaptive schema mode and PTSD symptoms in individuals with acquired brain injury and orthopedic trauma. The following specific objectives were formulated.

1. To make translation and cross language validation of Clinician Administered PTSD Scale (CAPS-5).
2. To find out the psychometric properties of Urdu version of CAPS-5.
3. To test the psychometric properties and factorial structure of the Urdu versions of PTSD Scale and Trauma Related Sub scale.

Research Design

Cross sectional research method was used. It consisted of two studies. In Study-I translation and cross language validation, and evaluation of the psychometric properties of Urdu translated CAPS-5. CAPS-5 was made (Weathers, Litz, et al., 2013) . Whereas,

Study II, which was the main study aimed to find out the schema mode and PTSD symptoms in orthopedic trauma and brain injured patients**.** The following steps were adapted for translation.

Step- 1: Translation of the Original CAPS-5 from English to Urdu Language

For forward translation, four bilingual experts were asked to translate the desire interview guidelines of PTSD from original source (English) to the Urdu language. The translation was done by four bilingual's experts. Two of them were lecturers of English one assistant professor and one is a psychologist. All bilinguals were expert in English and Urdu and were requested to translate the items word by word from English to Urdu. They translated the scale independently and could not influence each other in translation procedure. All the experts were informed about the study, goals of scale, and purpose of the translation.

Step II: Review of the Translation by Expert Panel

A committee was formed for reviewing the forward translation. The experts were invited to participate in the meeting to discuss the changes in first translation. The committee consisted of six members and the members were mental health professionals. Among these two were assistant professors and three were lecturer of psychology and researcher themselves. Committee reviewed the Urdu translated versions of CAPS-5 and compared it with the original English version and made recommendation. All the members thoroughly and carefully evaluated each item and also evaluated the style, grammar, and proper wording for Urdu version. The committee members picked only those items that were very close in meaning and in context with the original scale.

Step III: Try out of Translation by Local Community Sample

Two groups were selected which consisted of both male and female from local community. The group consisted of eight people of all age. Total two sessions were conducted and each session lasted for one hour. The Participants were provided pencil and Copy of Urdu translated version of CAPS-5. They were instructed to read each item of scale carefully and provide feedback on item understandability, clarity of content and ambiguity. The changes suggested by the first group were incorporated with the second group. The changes suggested by both the groups were almost similar.

Step IV: Back Translation from Urdu to English

After reviewing the expert opinion, the Urdu translated version of clinician interview guideline was translated back to English. The translator had no contact and were not aware with original English version of CAPS-5. All the translators were instructed to translate the Urdu version into English. The back translation was done for further verification. The back translation was done by three bilingual experts. Two of them were English lecturers and one PhD scholar in clinical psychology. All were requested to translate the PTSD interview guideline from Urdu to English as accurately as possible. In back translation same guidelines were followed as were adopted for the forward translation procedure. The same committee members examined the back translation of the Urdu version and original scale.

Step V: Committee Approach

In fourth step, a committee was formed of the same members. They were instructed to compare and critically evaluate the wording, content, grammatical structure of the

sentences, and formatting of both back translation and Urdu version. The committee consisted of four members, two of them were assistant professors, one lecturer, and one was PhD scholar.

Step VI: Testing psychometric properties of Pre-Final Version of Translated Instrument

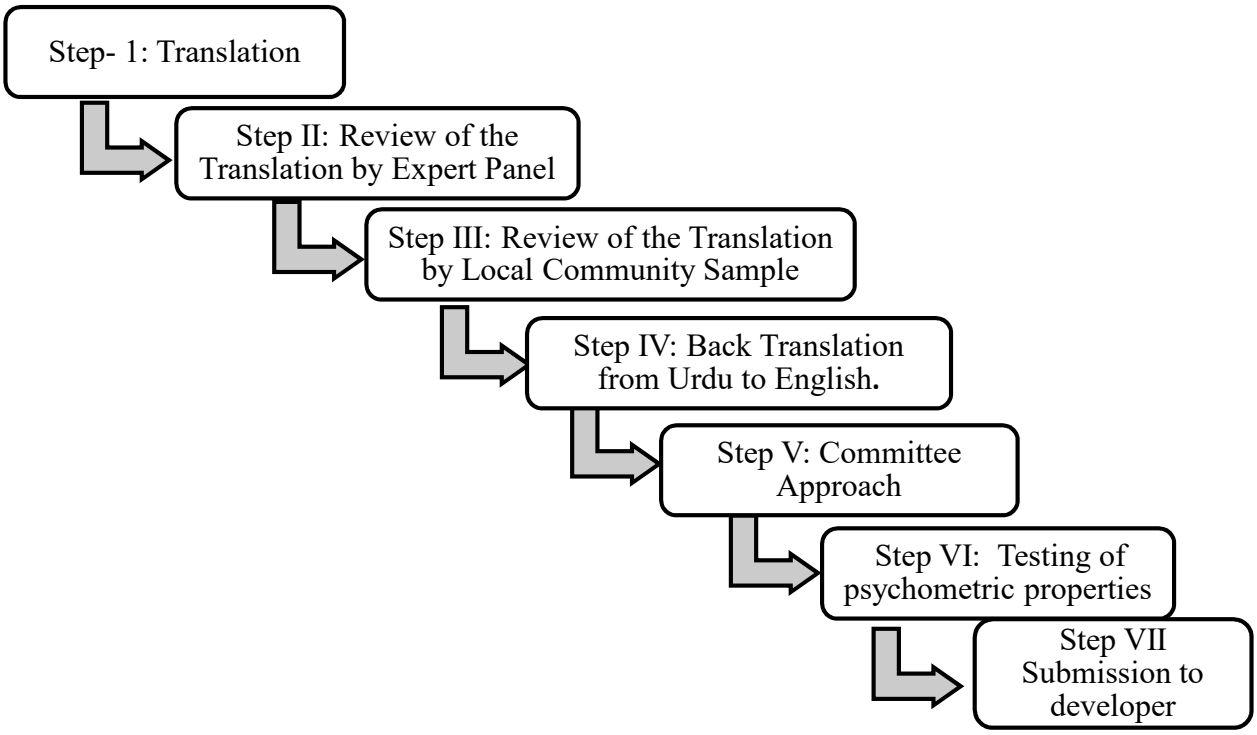
The entire Urdu version (CAPS-5) was administered to the bilingual population. The pre-field test of the instrument was done among the bilingual individuals. Ideally, the sample should be from the targeted population, but in the present study, the possible sample was taken from the target population. Psychometrics, reliability and validity were found satisfactory for sampling.

Step VII: Submission of translated versions to original developers

Final version of translation and back translation of CAPS-5 was sent to the authors at the U.S Department of Veterans Affairs National Center for PTSD. (Appendix-J)

Figure 3

Translation Procedure



Sample

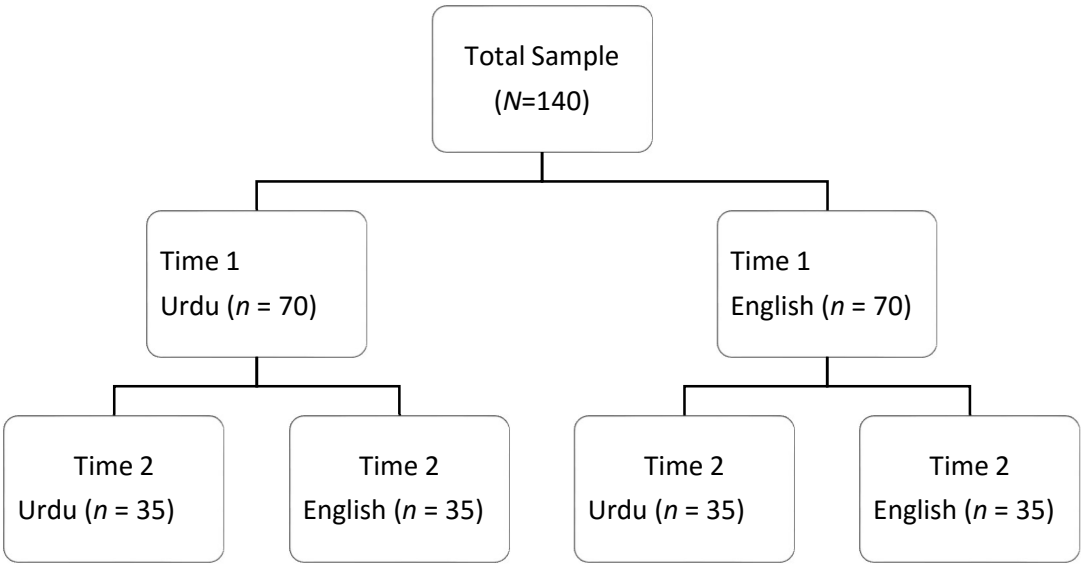
The sample consisted of 140 trauma exposed individuals in hospital setting. All trauma exposed individuals were bilingual and their age range was 18- 45 year. The sample consisted of both male and female individuals, 70 were male and 70 of them were female.

Procedure

Initially, pre-final target language (P-FTL) of CAPS-5 was administered to the participants and the answer of all items of P-FTL was collected without introducing the original CAPS-5. After completion of translated version, original CAPS-5 was administered to the participants. Sample was distributed in four groups and education level was undergraduate. All they were able to read Urdu and English literature. Scale were twice in four groups in following sequence. First, Urdu version was administered and sample retest with English version, then Urdu version retest with Urdu. Moreover, English version retest with Urdu and English version retest with English. All the data were collected from outdoor patients and they had experienced trauma as life threaten. The first data was collected after one month of trauma, whereas follow-up interview was taken after 15 days of the initial test. Moreover, inclusion criteria included moderate injury while severe head injury patients were excluded. Responses and score on both versions were interpreted and compared. Statistical analysis was used for comparison. Correlation, Coefficient, t-test, scale, and reliability were used to compare the properties of translated and original version.

Figure 4

Cross Language Validation Procedure



In Time 1 CAPS-5 was randomly administered in both Urdu and English forms, total 140 patients participated and they had experienced trauma; each group consisted of (n= 70). The second application was done after three months. Scale was administered in both Urdu and English forms, and this time participant were grouped into four, each group (n=35). The scale was randomly assigned to each group into four different conditions, Urdu test retest, English test retest, Urdu test and English retest, English test and Urdu retest. These groupings help to control the impact of previous learning and experiences.

Results

Cross language validity and test re-test reliability of PTSD four symptoms were assessed. Correlation between two scores on both Urdu and English versions were measured at two different time, time 1 and time 2 with the gap of three months. Result demonstrated that every group, (Urdu test and retest, Urdu test and English retest, English test and retest, English test and Urdu retest), has significant test retest reliability.

Table 1

Alpha reliability Estimates for Urdu and English Versions CAPS-5 at Time 1 and Time 2

Scales	Time 1		Time 2	
	Urdu (n = 70)	English (n = 70)	Urdu (n = 70)	English (n = 70)
PTSD (20)	.94	.93	.95	.92
Intrusive Symptoms (5)	.90	.74	.79	.81
Avoidance Symptom (2)	.79	.64	.62	.72
Negative Cognition (7)	.93	.80	.85	.86
Hyper arousal (6)	.90	.78	.85	.82

Table 1, shows a good alpha reliability of Urdu version of Clinician Administered PTSD Scale (CAPS-5) for DSM-5 in two different times. The alpha reliability indicates internal consistency of scale in two different times.

Table 2

Retest reliability of Urdu and English Version of CAPS-5 and its Subscales (N=140)

Scales	*UU* *(n=35)*	*UE* *(n=35)*	*EE* *(n=35)*	*EU* *(n=35)*
PTSD	.97**	.98**	.93**	.95**
Intrusive Symptoms	.90**	.85**	.67**	.74**
Avoidance Symptom	.72**	.79**	.71**	.62**
Negative Cognition	.91**	.94**	.77**	.85**
Hyper arousal	.94**	.92**	.84**	.79**

Note: UU=Urdu, Urdu UE= Urdu English, EE=English, English, EU=English Urdu

High stability was seen in correlation coefficient of the scale and sub scales over different time and i.e. (Urdu and English). Overall the result indicates that both original and Urdu translated of CAPS-5, assess the same construct.

Confirmatory factor analysis of PTSD Scale

First order and second order confirmatory factor analyses was used to assess the factorial structure of PTSD overall and at symptoms level through AMOS-23. Table shows fit indices for the first order and 2nd order CFA of PTSD scale.

Table 3

Model Fit Indices for CFA of PTSD (N = 317)

Models	χ^2	*df*	Fit Indices						χ^2/df
			GFI	*AGFI*	*CFI*	*NFI*	*RMSEA*	*St.RMR*	
First Order (20 items, Default Model)									
	682.6	170	.90	.87	.89	.86	.03	.039	3.9
Second Order (20 items in 4 symptoms)									
	944.82	334	.91	.92	.91	.90	.028	.037	2.9

***$p < .001$

Table 3, presented the first order model fit indices for confirmatory factor analysis of PTSD overall and 2nd order model fit for symptoms level analyses of PTSD. The factors structure of PTSD was estimated through confirmatory factor analysis for the overall PTSD scale figure 5, and for the symptoms that included: intrusive symptoms; avoidance symptoms; cognition and mood symptoms; and arousal and reactivity figure 5. Both these models consisted of 20 items. The findings of the first order and 2nd order CFA of PTSD showed good results where 20 items were independent in terms of their error co variances. Table 4 shows the factor loadings for first order CFA, and Table 5, shows the 2nd order CFA factors loadings.

Table 4

Standardized Solutions by first order Confirmatory Factor Analysis of PTSD (N = 317)

Items	PTSD	Items	PTSD	Items	PTSD	Items	PTSD
1	.490	6	.700	11	.77	16	.77
2	.505	7	.606	12	.82	17	.71
3	.509	8	.805	13	.85	18	.79
4	.463	9	.81	14	.72	19	.85
5	.690	10	.74	15	.76	20	.80

Table 4, showed the standardized solutions by first order confirmatory factor analysis of PTSD scales. All the factor loadings are above .4 indicating that all items are contributing to PTSD.

Table 5

Standardized Solutions by second order Confirmatory Factor Analysis of PTSD at symptoms level (N = 317)

Items	Intrusive	Items	Avoidance	Items	Cognition and Mood	Items	Arousal and Reactivity
1	.75	6	.84	8	.82	15	.77
2	.73	7	.74	9	.82	16	.78
3	.73			10	.75	17	.72
4	.73			11	.77	18	.80
5	.57			12	.83	19	.85
				13	.86	20	.80
				14	.73		

Table 5, showed the standardized solutions by second order confirmatory factor analysis of symptoms subscale of PTSD. All the factor loadings are above .4 indicating that all items are contributing to PTSD at symptoms level.

Figure 5

Standardized factor loadings in first order confirmatory factor analysis of PTSD

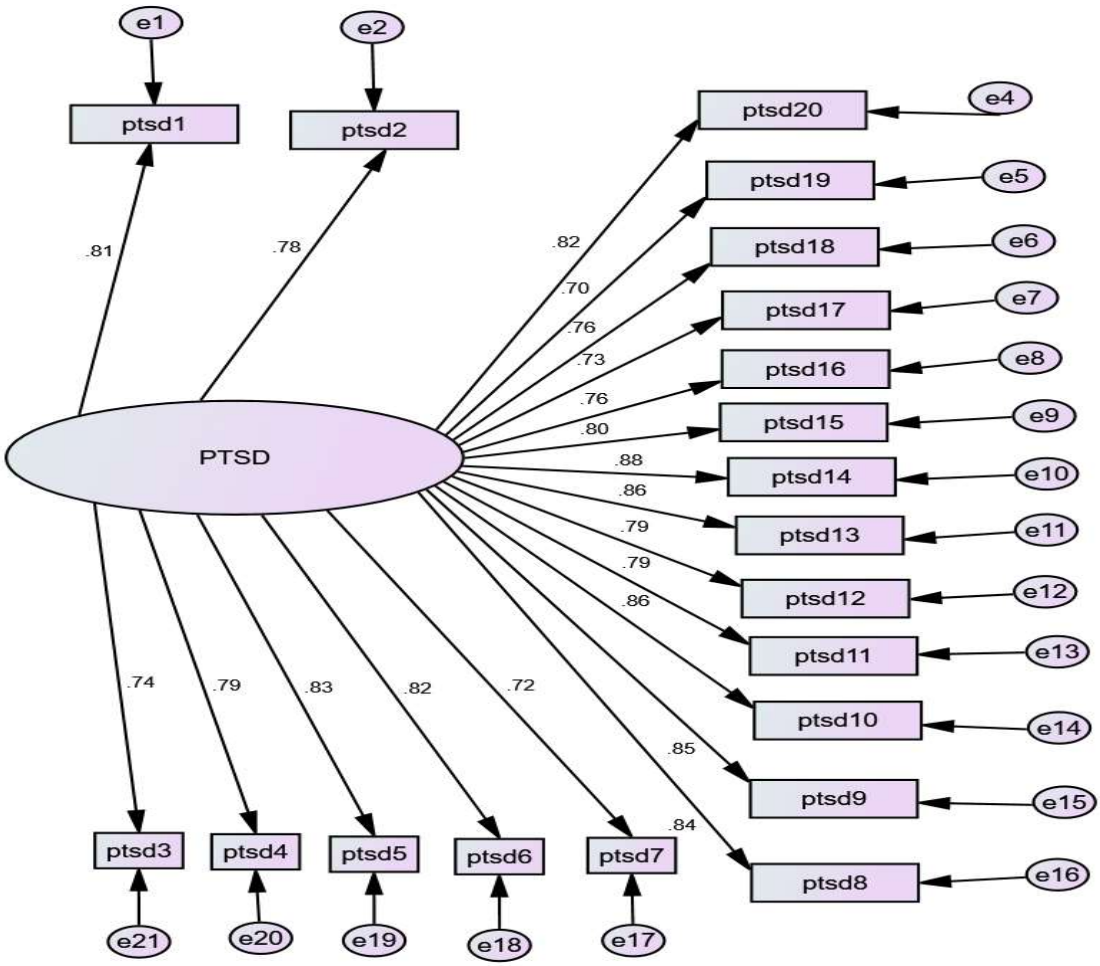
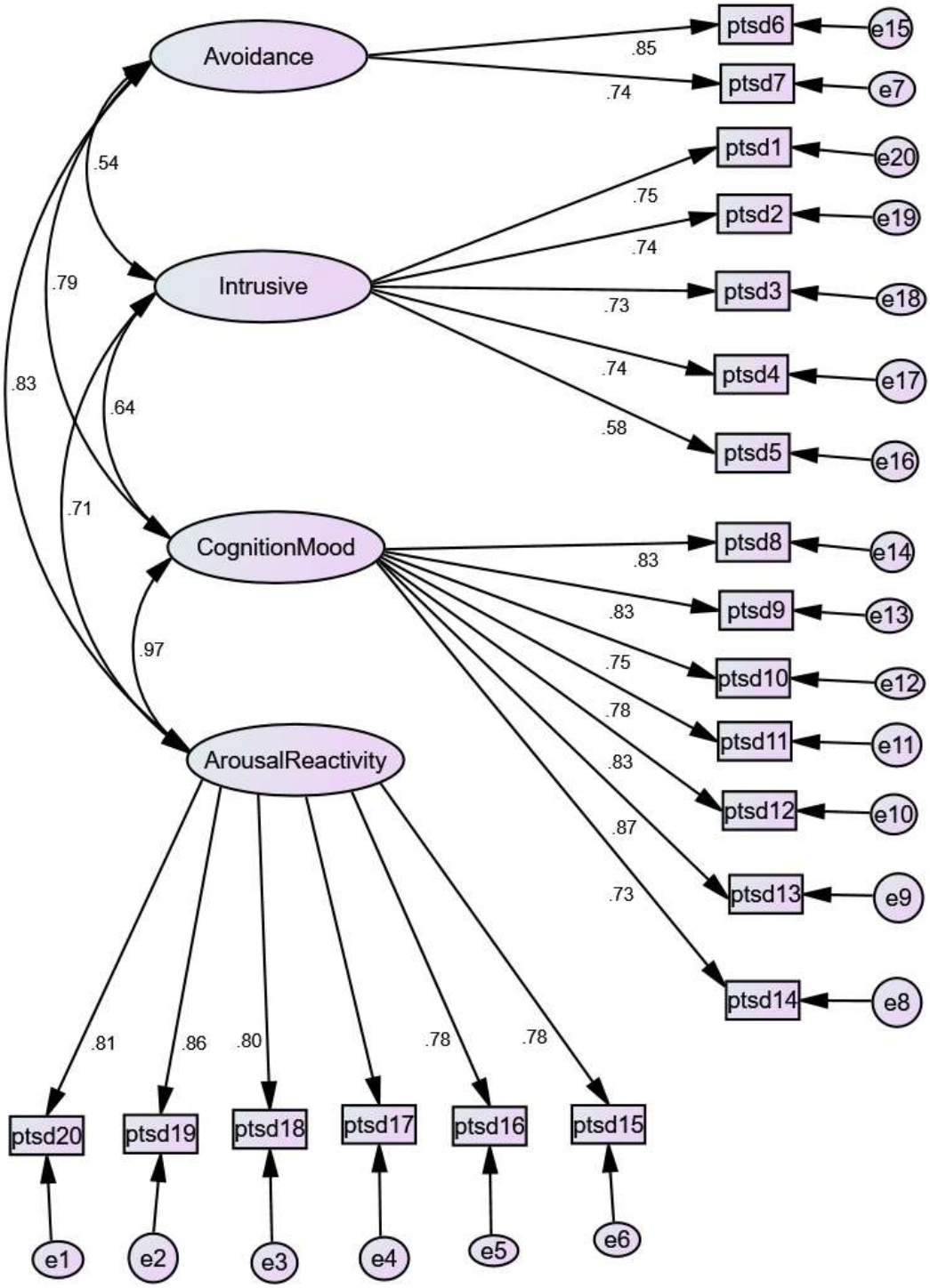


Figure 6

Standardized factor loadings in second order confirmatory factor analysis of symptoms level of PTSD



Confirmatory factor analysis of Trauma Related PTSD

First order confirmatory factor analyses were used to assess the factorial structure of trauma related PTSD.

Table 6

Model Fit Indices for CFA of Trauma Related PTSD (N = 317)

Models	χ^2	*df*	Fit Indices						χ^2/df
			GFI	*AGFI*	*CFI*	*NFI*	*RMSEA*	*St.RMR*	
First Order (11 items, Default Model)									
	159.86	44	.91	.87	.95	.94	.04	.04	3.63

***$p < .001$

Table 6, showed the first order model fit indices for confirmatory factor analysis of trauma related PTSD overall. The findings of the first order of trauma related PTSD showed good results where 11 items were independent in terms of their error co variances model fit indices were satisfactory too.

Table 7

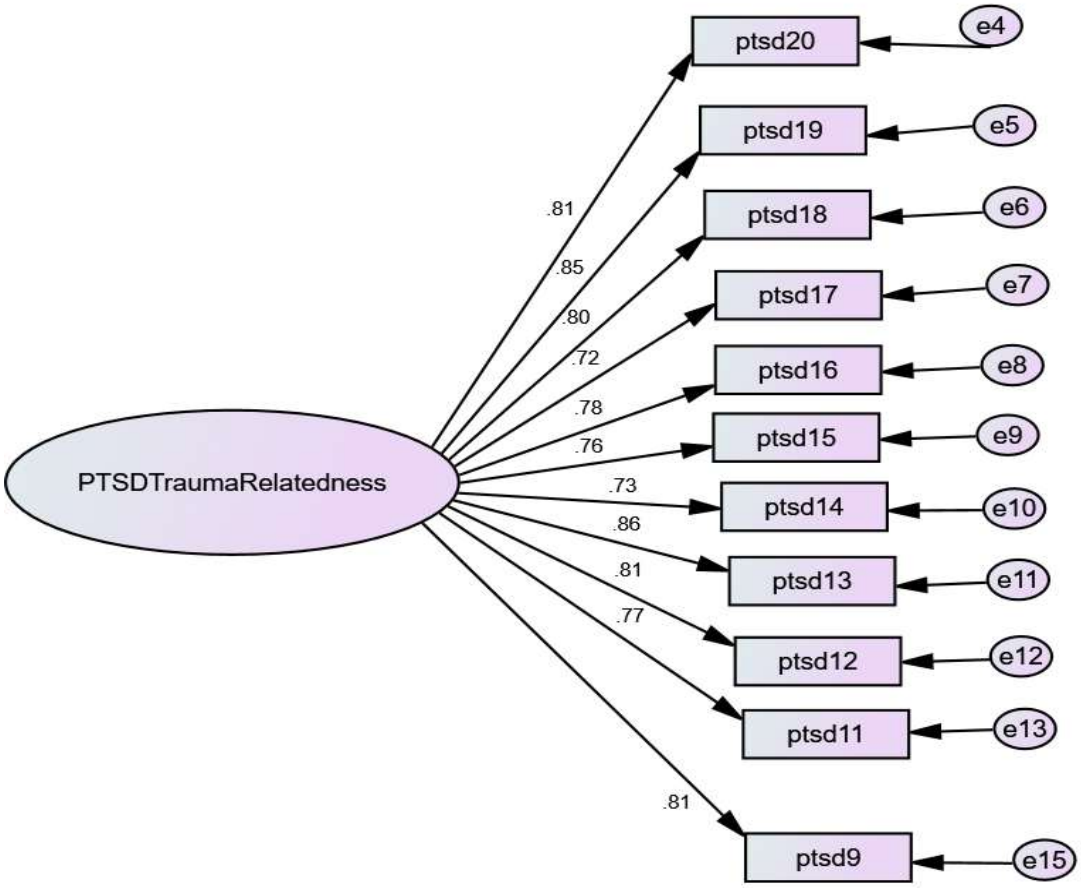
Standardized Solutions by first order Confirmatory Factor Analysis of trauma related PTSD (N = 317)

Items	Trauma Related PTSD	Items	Trauma Related PTSD
9	.82	16	.78
11	.77	17	.72
12	.81	18	.80
13	.86	19	.85
14	.73	20	.81
15	.76		

Table 7, showed the standardized solutions by first order confirmatory factor analysis of trauma related PTSD. All the factor loadings are above .4 indicating that all items are contributing to trauma related PTSD.

Figure 7

Standardized factor loadings in first order confirmatory factor analysis of Trauma Related PTSD



Discussion

Assessment methods for psychological distress are not properly established in demographically diverse populations. The researchers and clinical practitioners have planned to translate scales from English language to local language e.g Urdu. The researchers have also aimed to culturally validate the translated version of scale on local populations. The purposes of such translation are to apply practically in the field of research, in order to minimize cultural errors and biasness. The objectives of CAPS-5 translation from English to local language Urdu, allow the researchers to assess the PTSD symptoms of individuals in Pakistani culture. After using the CAPS-5, the results have satisfactory test retest reliability across the sample. The reliable and cross culturally validated instruments provide help to assessing the diverse issues of people around the world (Sousa & Rojjanasrirat, 2011). The findings of the current study is in line with the previous works on CAPS translation in different language, like translation adaptation in German language (Schnyder & Moergeli, 2002), which provide support to structural equivalence for the instrument. It was found that CAPS-5 and its subscales have a reasonable equivalence across different cultures.

Method

Study II

Research Design

Cross sectional research design was used. Clinician rating and self-rating were used.

Sample

Purposive sampling technique was used to recruit diagnosed patients with ABI and orthopedic trauma from tertiary care hospital Pakistan Institute of Medical Sciences (PIMS) Islamabad. In the present study, a total 317 patients both male and female with different types of injuries were taken under the ratio of 132 from ABI (96 traumatic and 36 non-traumatic), and 137 from orthopedic trauma (66 open fracture and 71 close fracture patients of long bone including both upper and lower limbs). In addition, 48 multiple injury patients were also recruited.

Inclusion Criteria

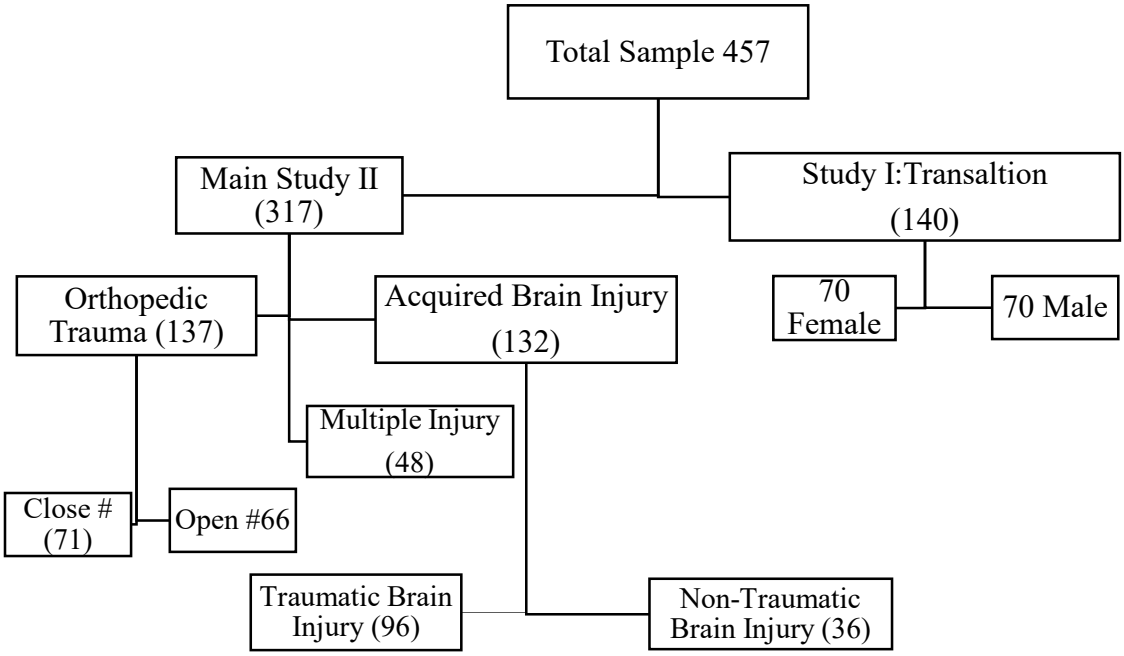
Age > 18, who were able to understand instructions, already diagnosed with ABI and orthopedic Trauma, were included in the sample. The orthopedic trauma patients include, long-bone fractures specifically, femur, radius, ulna, tibia, fibula, and humorous. Data was collected at least after 02 months of trauma.

Exclusion Criteria

Patients with any other medical or psychological problems and patients with facial ribs and spine fracture were excluded along with Patients having less than 1 month's history of trauma. Similarly, patients with critical sickness were also excluded.

Figure 8

Flow of Participants



Operational Definitions

Operational definitions of the study variables are given below.

Trauma

Trauma is a type of complex injury that has a probability to cause mortality and morbidity for a long period of time. It is an individual experience about event or conditions in which individual integrate his or her emotional experience is overwhelmed and the individual experiences subjectively or objectively a threat to his/her life, body integrity and of family members. (Administration, 2015).

Orthopedic trauma

Orthopedic trauma is a severe type of injury related to the bone or musculoskeletal system as a result of trauma or disease (Herkowitz et al., 2011).

Fracture

The fracture is the complete or incomplete loss or break in the anatomic continuity of bone. (McRae & Esser, 2008).

Open Fracture. It is the break of skin or wound near the site of broken bone (Adjei; surgeons, 2012).

Closed Fracture. It is the breakage or loss of continuity of bone without damage of skin. (Oryan et al., 2013).

Acquired Brain Injury (ABI)

ABI is a type of brain damage occur after the birth due to trauma or illness. (Kamalakannan et al., 2015).

Schema

Schema is a core belief and thoughts about the external worlds, people and about ourselves (Young et al., 2003).

Schema Modes

It is a cluster of activated schemas related to cognitive, emotional and behavioral conditions and coping styles of an individual at any time (Young et al., 2003).

Child Modes. Child modes are the presentation of self which may develop during childhood age in reaction to parenting and other experiences (Farrell et al., 2014).

Dysfunctional Parenting Modes. The internalization of some negative aspects of attachment figure such as teachers, parents and peers (Farrell et al., 2014).

Maladaptive Coping Modes. These modes are defined as the overuse of unhealthy coping style or strategies such as fight or flight, avoidance, overcompensation etc (Farrell et al., 2014).

Healthy and Functional. It is fully functioning, developed and healthy part of self (Farrell et al., 2014).

Post-Traumatic Stress Disorder (PTSD)

PTSD is a psychological and mental health problems that may develop in some individual after trauma and disastrous situation. (APA, 2013a).

Instruments

The following two scales were used. Description of the scale appears below.

Schema Mode Inventory (SMI)

The SMI is a short version which consists of 124 items. It is a six point Likert scale ranging from "Never" to "Always" (Lobbestael, van Vreeswijk, Spinhoven, Schouten, & Arntz, 2010). The short version of SMI covers four main domains, including child, maladaptive coping, maladaptive parent, and healthy adult. The main four domains have 14 sub modes. First, the child mode consists of angry child, enraged child, impulsive child, vulnerable child, undisciplined child, and happy child. The total no of items is 55. Second, maladaptive child includes detached protector, complaint surrender, detached self-soother, self- aggrandizer, bully, and attack, (No of items 39). Third, maladaptive parent mode has 20 items and consists of demanding parent and punitive parent. Last, healthy adult and total no of items are 10. In the present study the Urdu version is used. The reliable and valid Urdu version of SMI instrument is used for measurement (Riaz & Khalily, 2013). It can be used for both academic and clinical settings. The SMI has good moderate convergent validity and discriminant validity. SMI has good internal consistency for all sub scales (Cronbach's alpha range 0.76-0.96).

Clinician-Administered PTSD Scale (CAPS-V)

The CAPS is a structured interview which consists of 30 items that can be used for diagnosis of PTSD. The CAPS can be used to assess PTSD over the past months and past weeks. It can also be used to make life time diagnosis of PTSD. It is a gold standard in PTSD assessment. The DSM-V criteria is verified accordingly to make sure the diagnosis (Weathers, Blake, et al., 2013). Furthermore, CAPS assesses the 20 DSM-V PTSD symptoms. The CAPS questions, target the onset of symptoms, subjective distress, and impact of symptoms on social and occupational functioning. The full interview completion time is 45-60 minute (Weathers, Blake, et al., 2013).

Demographic Data Sheet

The translated version in Urdu was used in present study.

Procedure

For Outdoor patients, permission was sought from administration and head of relevant department to contact the patients for study purpose. Diagnosed patients were referred by neurosurgeon and neuro-physician. Patient's permission to participate in research was taken through informed consent form.

Two scales were administered namely short Urdu translated version of the Schema Mode Inventory (Riaz & Khalily, 2013), and Urdu adapted version of CAPS-5. Demographic Data Sheet and an informed consent was secured for each subject before the test administration. The consent was sought through honest professional bondages. For this, priority was given to the establishment of relationship of trust with those patients by

assuring them possible assistance and care regarding their illness. They were also ensured regarding their safety, welfare, privacy, rights, dignity and confidentiality.

Chapter III

Results

Result focused on the appropriateness of the scales and subscales for current sample. For precision and accuracy, assessment of scales and subscales, mean, standard deviation, alpha reliability and skewness were computed. For assessment of difference among study variables, mean differences ANOVA and t-test were used. For relationship of study variables correlation coefficient were computed. Moreover, a Chi-square was used to examine the relationship and difference of categorical variables of study sample. For the assessment of estimated relationship between two quantitative variables, a simple linear regression was computed.

Table 8

Demographic Characteristics of Participants (N =317)

Variables	*n*	%
Gender		
Male	229	72.2
Female	88	27.2
Marital Status		
Married	221	69.7
Unmarried	96	30.3
Age		
18-40	169	53.3
41-55	97	30.6
Above 55	51	16.1
Education		
SSC(16 Year)	112	35.3
HSSC (18 Year)	103	32.5
Graduate or Above	102	32.2
Occupation		
Employed	93	29.3
Unemployed	123	38.8
Students	101	33.9
Monthly Income		
Below 25000 PKR	150	47.3
26000-50000 PKR	132	41.6
Above, 50000 PKR	35	11.0

Note. Age mean 33 (SD=12.55) Min 18 Max 70, SSC= Secondary School Certificate, HSSC=Higher Secondary School Certificate, PKR= Pakistani Rupees.

Table 8, shows the demographic characteristics of sample, such as age, gender, education, marital status, profession, and monthly income. Frequency distribution reveals that most participants were male (72.2%), and female (27.2%). Among these married (69.7%) and unmarried (30.3%) were reported. Furthermore, the data reveals participants age ranged between 18-40 years (53.3%) were higher than participants age ranged 41-55 years (30.6%), and above 55 years aged (16.1%). The data shows that participants had different education level, secondary school certificate (35.3%), higher secondary school certificate (32.5%), and graduate and above (32.2%). Moreover, frequency distribution regarding occupation, and economic status reveals that employed participants (29.3%) were less than unemployed (38.8%), and students (33.9%). Similarly, participants with their monthly income less than 25000 PKR were (47.3%) higher than participants' monthly income 26000-50000PKR (41.6, %), and above 500000 PKR (11.0%).

Table 9

Mean Scores, Standard Deviations, Alpha Reliability Coefficient, and Skewness of Schema Mode Inventory and Clinician Administered PTSD Scale(CAPS-5) (N=317)

Variables	*k*	*M*	*SD*	α	Range		Skewness	Kurtosis
					Actual	Potential		
SMI	124	297.00	17.95	.73	245	349	-.19	-.08
VC	10	18.79	3.46	.71	10	27	-.05	-.11
IC	9	17.57	3.54	.70	9	25	-.15	-.12
HC	10	33.96	6.26	.60	22	57	.37	-.04
AC	10	26.47	4.53	.76	16	36	-.03	-.30
EC	10	26.85	5.62	.81	15	41	.04	-.44
UC	6	16.45	2.86	.72	6	23	.23	1.0
CS	7	20.97	5.28	.88	9	32	-.09	-.64
BA	9	26.70	5.79	.79	15	39	.05	-.66
DP	9	23.77	4.25	.73	12	32	-.22	-.20
DSS	4	11.28	3.18	.71	4	18	-.23	-.24
SA	10	18.45	3.75	.71	10	26	-.12	-.47
DP	10	18.27	3.31	.71	11	27	.63	.22
PP	10	15.97	3.35	.70	10	24	-.03	-.30
HA	10	27.72	5.85	.75	15	45	.10	-.36
CM	55	134.88	10.41	.64	11	162	-.06	-.21
MCS	39	101.17	10.26	.70	72	131	-.05	.16
MPP	20	34.25	4.89	.70	25	49	.41	.01
PTSD	30	39.72	7.84	.70	1	57	-.56	1.51
IS	5	12.54	3.65	.71	.00	19	-1.07	1.53
AS	2	3.97	2.36	.71	.00	8	-.22	-1.22
NCS	7	16.75	4.57	.71	.00	25	-1.53	3.00

ARS	6	13.70	4.08	.70	.00	22	-1.22	2.84
TR	11	14.89	4.52	.74	.00	28	-.43	.46
OI	10	19.98	4.37	.71	.00	26	-2.51	9.10

Note. SMI= Shema Mode Inventory; VC = Vulnerable Child; IC = Impulsive Child; HC = Happy Child; AC = Angry Child; EC = Enraged Child; UC = Undisciplined Child; CS = Complaint Surrender; BA = Bully and Attack; DP = Detached Protector; DSS = Detached Self Soother; SA = Self –Aggrandizer; DP = demanding Parent; PP = Punitive Parent; HA = healthy Adult; CM = Child Modes; MCS = Maladaptive Coping Style; MPP = Maladaptive Punitive Parent; PTSD=Post-Traumatic Stress Disorder; IS= Intrusive Symptoms; AS=Avoidance Symptoms; NCS= Negative Cognition Symptoms; ARS Arousal Reactivity Symptoms; TR=Trauma Relatedness; OI= Other Items

Table 9, shows the alpha reliability, mean, standard deviation, and skewness of all scales, and subscales of the present study. Better alpha reliability values indicate the high internal consistency within the scales and subscales. The reliability ranges from .70 to .90 was considered satisfactory. Moreover, mean and standard deviation were demonstrated in the present study. The highest and lowest mean values indicate that participants reported differently to scales and subscales. Similarly, highest and lowest standard deviation were reported in table which indicates participant's variability in responses. The data shows that all scales are suitable for assessment of the study sample.

Table 10

Clinical Characteristics and Percentages of Different Variables among Male and Female Patients (N=317)

Variables	Categories *n* (%)	Male *n* (%)	Female *n* (%)
Injury Types	Acquired Brain Injuries (32, 41.6)	94 (71.2)	38 (28.8)
	Orthopedic Trauma (137, 43.2)	104 (75.9)	33 (24.1)
Nature of Injury			
	Close Fracture (71, 22.4)	54 (76.1)	17 (23.9)
	Open Fracture (66, 20.8)	50 (78.8)	16 (24.2)
	Traumatic Brain Injury (96, 30.3)	68 (70.8)	28 (29.2)
	Non-Traumatic Brain Injury (36, 11.4)	26 (72.2)	10 (27.8)
	Multiple Injuries (48, 15.1)	31 (64.6)	17 (35.4)
Causes of Injury			
	Intentional (63, 19.9)	45 (71.4)	18 (28.6)
	Unintentional (254, 80.1)	184 (72.4)	70(27.6)
Injury Severity			
	Mild (213, 67.2)	151 (70.9)	62(29.1)
	Moderate (104, 32.8)	78 (75.0)	26(25.0)
Fracture Location			
	Upper Limb (83, 26.2)	61(73.5)	22(26.5)
	Lower Limb (54, 17.0)	43(79.6)	11(20.4)
PTSD Severity			
	Mild (8, 2.5)	4 (1.7)	4 (4.5)
	Moderate (61, 19.2)	49 (21.4)	12 (13.6)
	Severe (186, 58.7)	141(61.6)	45 (51.1)
	Extreme (62, 19.6)	35 (15.3)	27 (30.7)

Table 10, shows the clinical characteristics of participants. Acquired brain injury patients were 132 (41.6 %), and orthopedic trauma patients were 137 (43.2%). In these male patients with acquired brain injuries were 94 (71.2 %), and female were, 38 (28.8 %). Similarly, male patients with orthopedic trauma 104 (75.9 %), and female 33 (24.1 %). The frequency tabulation reveals other clinical characteristics such as nature of injury, causes, injury severity and PTSD severity. The table shows close fracture 71 (22.4 %), open fracture 66 (20.8 %), traumatic brain injury 96 (30.3%), non-traumatic brain injury 36 (11.4%), and multiple injuries 48 (15.1 %). Furthermore, the frequency tabulation reveals that unintentional injuries 254 (80.1%) were more than intentional 63 (19.9%). Mild and moderate injury severity was distributed 213 (67.2%) and 104 (32.8 %) respectively. Moreover, upper limbs fracture 83 (26.2 %) were higher than lower limbs fracture, 54 (17.0 %). The frequency table shows that mild PTSD symptoms 8 (2.5%), moderate symptoms 61 (19.2, %), severe PTSD symptoms 186 (58.7 %), and extreme PTSD symptoms were 62 (19.6 %).

Table 11

Correlation between PTSD and sub scales of Schema Mode Inventory (N=317)

		1	2	3	4	5	6	7	8	9	10
1	PTSD	--									
2	IS	.46***	--								
3	AS	.21***	.03	--							
4	NC	.42***	.01	.14*	--						
5	ARS	.45***	.15**	.04	.02	--					
6	CH	.09	.27	.00	.00	.06	--				
7	MCS	-.03	-.01	.04	.01	.01	.03	--			
8	MPP	.07	-.02	.03	-.11	.11*	.29***	.05	--		
9	AM	-.07	-.10	-.28***	-.01	-.03	.18**	.07	.04	--	
10	MM	.12*	.00	.02	-.02	.12*	.79***	.11*	.67***	.01	--

Note. *p<0.05, **p<0.01, ***p<0.001, PTSD; Post-Traumatic Stress disorder; IS=Intrusive Symptoms; AS= Avoidance Symptoms; NC=Negative Cognition; ARS=Arousal Reactivity Symptoms; CH=Child Mode; MCS=Maladaptive Coping Style; MPP=Maladaptive Punitive Parent; AM=Adaptive Mode; MM= Maladaptive Mode

Table 11, shows the Pearson correlation between two scales of the study. It reveals that PTSD symptoms were positively correlated with maladaptive schema mode, (r = .12 p<0.05), and negative correlated with adaptive schema (r = -.07, p>0.05). Moreover, the table shows that maladaptive schema modes (r = .12 p<0.05), and positively correlated with arousal reactivity symptoms, while adaptive schema mode (r = -.28, $p<0.001$) is negatively correlated with arousal symptoms of PTSD.

Table 12

Inter scale Correlation of Schema Mode Inventory (N=317)

		1	2	3	4	5	6	7	8	9	10	11	12	13	14
1	VC	--													
2	IC	.36***	--												
3	HC	.08	.11	--											
4	AC	.02	.02	.09	--										
5	EC	-.08	-.06	-.19**	-.20***	--									
6	UC	.07	-.00	.08	-.11	.04	--								
7	CS	.00	-.01	-.07	-.09	.06	-.03	--							
8	BA	-.01	.00	.01	-.06	-.06	.03	.08	--						
9	DP	.01	-.07	.09	.63***	-.19**	-.09	-.03	-.11*	--					
10	DSS	-.00	.02	-.15**	.00	.17**	.03	.00	.05	.05	--				
11	SA	.07	.09	-.07	.18**	-.01	.05	.02	-.08	.13*	-.04	--			
12	DP	.66***	.29***	.09	.08	-.13*	-.04	.05	-.00	.05	-.04	.07	--		
13	PP	.12*	.12*	-.11	.00	.04	.03	-.07	.05	.04	.05	-.00	.08	--	
14	HA	.00	.01	.20***	.26***	-.27***	-.01	.03	-.05	.17**	-.04	.10	.11*	-.03	--

Note. p*<.05, ** p<.01, *** p<.00, VC = Vulnerable Child; IC = Impulsive Child; HC = Happy Child; AC = Angry Child; EC = Enraged Child; UC = Undisciplined Child; CS = Complaint Surrender; BA = Bully and Attack; DP = Detached Protector; DSS = Detached Self Soother; SA = Self –Aggrandizer; DP = demanding Parent; PP = Punitive Parent; HA = healthy Adult

Table 12 shows inter-items correlation of schema mode inventory. It reveals that health adult mode is positively correlated with happy child and angry child (p<.001). Healthy adult mode negatively correlated with enraged child, and positively correlated with detached protector and demanding parent. Furthermore, demanding parenting positively correlated with impulsive child, (p<.001). Self-aggrandizer is positively correlated with angry child (p<.01). Detached protector negatively correlated with enraged child (p<.01), while detached self-soother is positively correlated with enraged child (p<.01). Moreover, enraged child is negatively correlated with angry child, (p<.001).

Table 13

t-test analysis between Male and Female Participants on variable of PTSD and SMI (N=317)

	Male (n=229)		Female (n=88)				95% CI		
Variables	*M*	*SD*	*M*	*SD*	*t (315)*	*p*	LL	UL	Cohen's *d*
PTSD	39.30	6.99	41.27	9.25	2.05	.04	.08	3.87	.24
SMI	296.20	18.00	299.11	17.79	1.30	.19	-1.50	7.34	.16
MM	139.98	11.53	141.42	10.93	1.01	.31	-1.36	4.25	.12
MCS	100.33	10.12	103.35	10.34	2.37	.02	.51	5.53	.30
AM	58.70	9.24	57.60	8.67	-.97	.34	-3.34	1.14	.12

Note. M= Mean; SD= Standard Deviation; Cl = confidence interval; LL = lower limit, UL = upper limit; PTSD=Post-Traumatic Stress Disorder; SMI=Schema Mode Inventory; MM=Maladaptive Modes; MCS=Maladaptive Coping Style; AM=Adaptive Mode.

Table 13, demonstrates the mean differences among male and female participants on PTSD, schema mode, maladaptive schema mode, maladaptive coping style and adaptive mode. Significant mean differences were seen among male and female on PTSD and maladaptive coping style. t-test indicates PTSD score was significantly lower in male (M = 39.30, SD = 6.99) than female (M = 41.27, SD = 9.25) t (315) = 2.05, p<.05. Female score was high on maladaptive coping style as compare to male patients. Maladaptive coping style of male patients (M=100.33, SD = 10.12), is lower than female patients (M = 103.35, SD = 10.34), t (315) = 2.37, p<0.01.

Table 14

t-test analysis between married and unmarried Participants, on variable of PTSD and SMI (N=317)

	Married (n=221)		Unmarried (n=96)				95% CI		
Variables	*M*	*SD*	*M*	*SD*	*t (315)*	*p*	LL	UL	Cohen's *d*
PTSD	39.73	7.35	40.11	8.55	-.41	.68	-2.24	1.47	.05
SMI	297.37	17.54	296.16	18.96	.56	.58	-3.10	5.54	.07
MM	140.74	11.64	139.51	10.73	.41	.40	-1.55	3.92	.11
MCS	100.99	9.42	101.57	12.01	-.46	.65	-3.04	1.89	.05
AM	58.37	8.78	58.46	9.70	-.08	.94	-2.27	2.10	.01

Note. M= Mean; SD= Standard Deviation; Cl = confidence interval; LL = lower limit, UL = upper limit; PTSD=Post-Traumatic Stress Disorder; SMI=Schema Mode Inventory; MM=Maladaptive Modes; MCS=Maladaptive Coping Style; AM=Adaptive Mode

Table 14, demonstrates that there was no significant mean difference among married and unmarried participants on study variables. Married men (M = 39.73, SD = 7.35) and unmarried participants (M = 40.11, SD = 8.55) on PTSD symptoms. Table shows that married patients score on maladaptive modes, maladaptive coping and adaptive modes (M = 140.74, SD = 11.64), (M = 100.99, SD = 9.42), (M = 58.37, SD = 8.78) respectively. While unmarried participants score on maladaptive mode (M = 139.51, SD = 10.73) and score on adaptive modes (M =58.46, SD = 9.70).

Table 15

t-test analysis between upper limbs and lower limbs fracture Participants, on variable of PTSD and SMI (N=317)

	Upper limbs (n=113)		Lower limbs (n=24)				95% CI		
Variables	*M*	*SD*	*M*	*SD*	*t (135)*	*p*	LL	UL	Cohen's *d*
PTSD	39.88	6.14	39.21	5.96	.49	.63	-2.04	3.38	.11
MM	138.24	10.69	140.58	13.52	-.93	.35	-7.33	2.64	.19
MCS	101.11	9.73	100.96	10.00	.07	.95	-4.19	4.49	.01
AM	56.23	9.59	57.08	7.76	-.08	.68	-4.99	3.28	.09

Note. M= Mean; SD= Standard Deviation; Cl = confidence interval; LL = lower limit, UL = upper limit; PTSD=Post-Traumatic Stress Disorder; SMI=Schema Mode Inventory; MM=Maladaptive Modes; MCS=Maladaptive Coping Style; AM=Adaptive Mode

Table 15, shows no significant mean difference were seen between upper, and lower limbs fracture. PTSD symptoms were same in patients with upper and lower limbs fracture. The mean score on PTSD of patients with upper limb fracture (M = 39.88, SD = 6.14) and lower limbs fracture (M = 39.21, SD = 5.96). Moreover, patients with lower and upper limbs fracture reported score on maladaptive mode (M = 138.24, SD = 10.69), (M = 140.58, SD = 13.52) adaptive mode of participants with upper and lower limbs fracture (M =56.23, SD = 9.59), (M = 57.08, SD = 7.76).

Table 16

t-test analysis between intentional and unintentional on variable of PTSD and SMI (N=317)

	Intentional (n=63)		Unintentional (n=254)				95% CI		
Variables	*M*	*SD*	*M*	*SD*	*t (315)*	*p*	LL	UL	Cohen's *d*
PTSD	42.13	7.21	39.28	7.58	2.64	.01	.73	4.97	.39
MM	147.71	10.46	138.56	10.86	6.03	.001	6.17	12.14	.86
MCS	103.75	11.61	100.53	9.82	2.24	.03	.39	6.04	.30
AM	59.62	8.84	58.09	9.14	1.19	.23	-.99	4.04	.17

Note. M= Mean; SD= Standard Deviation; CI = confidence interval; LL = lower limit, UL = upper limit; PTSD=Post-Traumatic Stress Disorder; SMI=Schema Mode Inventory; MM=Maladaptive Modes; MCS=Maladaptive Coping Style; AM=Adaptive Mode

The result shows the mean difference among intentional and unintentional injury patients over PTSD, maladaptive schema mode and maladaptive coping style. Significant mean difference was seen in intentional and unintentional injury patients on PTSD, intentional injury (M = 42.13, SD = 7.21), mean and standard deviation of unintentional injury patients (M = 39.28, SD = 7.58), t (315) = 2.64, p<.01.

Table 17

t-test analysis between mild and moderate on variable of PTSD and SMI (N=317)

	Mild (n=213)		Moderate (n=104)				95% CI		
Variables	*M*	*SD*	*M*	*SD*	*t (315)*	*p*	LL	UL	Cohen's *d*
PTSD	38.95	7.80	41.67	7.28	-2.98	.01	-4.51	-.92	.36
MM	139.44	10.78	142.29	12.32	-2.10	.04	-5.50	-.18	.25
MCS	101.72	10.21	100.03	10.32	1.38	.17	-.73	4.09	.16
AM	57.31	9.02	60.64	8.88	-3.12	.01	-5.45	-1.23	.37

Note. M= Mean; SD= Standard Deviation; CI = confidence interval; LL = lower limit, UL = upper limit; PTSD=Post-Traumatic Stress Disorder; SMI=Schema Mode Inventory; MM=Maladaptive Modes; MCS=Maladaptive Coping Style; AM=Adaptive Mode

Result indicates the mean difference of PTSD, maladaptive schema mode, maladaptive coping style and adaptive mode among mild and moderate injured patients. Significant mean differences were seen among mild and moderate injured patients on PTSD, Maladaptive coping style and adaptive mode. PTSD level was high in moderate injury (M = 41.67, SD = 7.28) than mild injury (M = 38.95, SD = 7.80), t (315) = 2.98, p<.01. High maladaptive schema mode (M = 142.29, SD = 12.32), t (315) = 2.10, p<.05, were seen in moderate, while low maladaptive schema mode was reported in mild injury patients (M = 139.44, SD = 10.78). Moreover, high adaptive schema was reported in moderate injured patients than mild injured patient. Table shows (M = 60.64, SD = 8.88) for moderate injury patients, while mild injury patients mean (M = 57.31, SD = 9.02), t (315) = 3.12, p<.01.

Table 18

ANOVA was computed to see score of different monthly Income group on PTSD and SMI (N=317)

Variables	df	F	η^2	*Post-hoc (Hochberg GT2)*			
PTSD	2,314	9.24***	.06	*MI*	*M (SD)*	*MI*	*M (SD)*
				<25000	41.73(7.30)	26T/50000**	38.38 (8.12)
						>50000**	37.29(6.05)
				26T/50000	38.38(8.12)	>50000	37.29(6.05)
MM	2,314	.28	.00				
				>25000	140.85(11.76	26T/50000	139.83(11.38
						>50000	140.43(9.71)
				26T/50000	139.83(11.38	>50000	140.43(9.71)
MCS	2,314	2.33	.02				
				>25000	99.87(10.51)	26T50000	102.48(10.21
						>50000	101.71(8.87)
				26T/50000	102.48(10.21	>50000	101.71(8.87)
AM	2,314	3.79*	.02				
				<25000	57.47(9.09)	26T/50000	58.47(8.94)
						>50000	62.11(8.89)
				26T/50000	58.47	>50000	62.11(8.89)

Note. *p <. 05, **p < .01, ***p < .001; M=Mean; SD=Standard Deviation; LL= Lower Limit; Upper Limit; MI= Monthly Income; PTSD=Post-traumatic Stress Decoder; MM= Maladaptive Mode; MCS= Maladaptive Coping Style; AM=Adaptive Mode; T=Thousand.

Table 18 demonstrates that PTSD score was highly significant among different monthly income (>25000, 26000-50000 and < 50000), F (2, 314) = 9.24, p<.001. Adaptive mode was significant between monthly income below 25000 and above 50000, F (3.79, p< .05). It indicates that participants whose monthly income were more than 50000, used adaptive schema mode. Moreover, table shows no significant mean difference was seen in maladaptive schema and maladaptive coping style among participants of different monthly income.

Table 19

ANOVA was computed to see score of different Age group on PTSD and SMI (317)

Variables	df	F	η^2	*Post-hoc (Hochberg GT2)*			
PTSD	2,314	13.0***	.08	*Age*	*M (SD)*	*Age*	*M (SD)*
				18-40y	41.23(7.71)	41-55y***	36.63(7.71)
						>55y	41.37(7.04)
				41-55y	36.63(7.71)	>55y**	41.37(7.04)
MM	2,314	2.68*	.02				
				18-40y	141.64(11.58)	41-55y	139.57(10.31)
						>55y*	137.75(11.95)
				41-55y	139.57(10.31)	>55y	137.75(11.95)
MCS	2,314	.66	.00				
				18-40y	101.59(9.14)	41-55y	100.17(9.88)
						>55y	101.67(10.83)
				41-55y	100.17(9.88)	>55y	101.67(10.83)
AM	2,314	.18	.00				
				18-40y	58.21(8.96)	41-55y	58.37(10.11)
						>55y	59.07(7.99)
				41-55y	58.37(10.11)	>55y	59.07(7.99)

Note. *p <. 05, **p < .01, ***p < .001; M=Mean; SD=Standard Deviation; LL= Lower Limit; Upper Limit; MCS=Maladaptive Coping Style; MM=Maladaptive Mode; AM=Adaptive Mode; y=year.

Result shows that PTSD symptoms were significant among different age group people (18-40 year and 41-55 year), indicates that PTSD symptoms were high in young age, (M = 41.23, SD = 7.71), 18-40, while low between ages 41-55 years (M = 36.63, SD = 7.71). Maladaptive schema mode was significant between 18-41 years, and above 55 years, which demonstrates that young individual age ranges between 18-40 years, (M = 141.64, SD = 11.58) high maladaptive schema mode as compare to other age groups.

Table 20

ANOVA was computed to see score of different Occupation on PTSD and SMI (N=317)

Variables	df	F	η^2	*Post-hoc (Hochberg GT2)*			
PTSD	2,314	13.74***	.08	*OCC*	*M (SD)*	*OCC*	*M (SD)*
				EMPL	36.54(7.56)	UEMP***	40.65((7.87)
						STD**	41.90(6.72)
				UEMP	40.65((7.87)	STD	41.90(6.72)
MM	2,314	.27	.02				
				EMPL	140.40(11.05)	UEMP	139.86(10.92)
						STD	140.99(12.24)
				UEMP	140.40(11.05)	STD	140.99(12.24)
MCS	2,314	.83	.00				
				EMPL	101.12(10.15)	UEMP	101.99(9.68)
						STD	100.22(11.02)
				UEMP	101.99(9.68)	STD	100.22(11.02)
AM	2,314	.99	.01				
				EMPL	59.72(9.91)	UEMP	58.63(8.72)
						STD	57.40(8.72)
				UEMP	58.63(8.72)	STD	57.40(8.72)

Note. *p <. 05, **p < .01, ***p < .001; M=Mean; SD=Standard Deviation; LL= Lower Limit; Upper Limit; MCS=Maladaptive Coping Style; MM=Maladaptive Mode; AM=Adaptive Mode; EMP=Employment, UEMP=Unemployment, STD=Students, OCC=Occupation.

Table, shows significant level among employed, unemployed and student's participants on PTSD. Unemployed and student participants score had high score on PTSD as compare to employed participants, F (2,314) = 13.74, p<.001. Further, the no significant level was reported among employed, unemployed, and students on maladaptive schema mode, and maladaptive coping style.

Table 21

ANOVA was computed to see score of Education on PTSD and SMI (N=317)

Variables	df	F	η^2	*Post-hoc (Hochberg GT2)*			
PTSD	2,314	31.99***	.03	*Education*	*M (SD)*	*Education*	*M (SD)*
				SSC	43.38(7.23)	HSSC**	40.14((7.00)
						G/A**	35.67(6.94)
				HSSC	40.14((7.00)	G/A**	41.90(6.72)
MM	2,314	3.50*	.02				
				SSC	142.60(11.80)	HSSC*	138.75(11.25)
						G/A	139.59(10.71)
				HSSC	138.75(11.25)	G/A	139.59(10.71)
MCS	2,314	.49	.00				
				SSC	100.94(9.75)	HSSC	101.97(10.58)
						G/A	100.62(10.52)
				HSSC	101.97(10.58)	G/A	100.62(10.52)
AM	2,314	4.87**	.03				
				SSC	57.81(8.62)	HSSC	56.84(8.69)
						G/A*	60.61(9.62)
				HSSC	56.84(8.69)	G/A**	60.61(9.62)

Note. *p <. 05, **p < .01, ***p < .001; M=Mean; SD=Standard Deviation; LL= Lower Limit; Upper Limit; MM=Maladaptive Mode; MCS= Maladaptive Coping style; AM=Adaptive Mode; SSC=Secondary School Certificate; HSSC=Higher Secondary School Certificate; G/A=Graduation Above.

ANOVA was performed on participants of different educational levels. The result shows the significance among different educational levels and PTSD. It indicates that PTSD level decreases when educational level increases. In present study high score on PTSD symptoms were seen in Secondary School Certificate (M = 43.38, SD = 7.23), F = 31.99, p<.001) than graduate and above education, (M = 35.67, SD = 6.94). Similarly, low score on adaptive mode was seen in SSC (M = 57.81, SD = 8.62), (F = 4.87, p<.01), participants as compared to other groups. Table shows high maladaptive schema mode in

individuals with secondary school education, (M = 142.60, SD = 11.80) as compared to individuals with education level graduation or above

Table 22

Analysis of Variance (ANOVA) for SMI among Participants with ABI, Orthopedic Trauma and Multiple Injuries (N=317)

Variables	df	*F*	η^2	*Post-hoc (Hochberg GT2)*			
PTSD	2, 314	.18	.00	IT	M (SD)	IT	M (SD)
				OT	39.76(6.09)	ABI	40.11(8.79)
						MI	39.35(8.86)
				ABI	40.11(8.79)	MI	39.35(8.86)
MM	2, 314	3.25*	.02				
				OT	138.65 (11.22)	ABI*	142.16(11.16)
						MI	140.42(11.83)
				ABI	142.16(11.16)	MI	140.42(11.83)
MCS	2, 314	.03	.00				
				OT	101.08(9.74)	ABI	101.14(10.99)
						MI	101.17(10.26)
				ABI	101.14(10.99)	MI	101.17(10.26)
AM	2,314	6.40**	.04	OT	56.38(9.28)	ABI**	59.65(8.68)
						MI*	60.71(8.61)
				ABI	59.65(8.68)	MI	60.71(8.61)

Note. *p <. 05, **p < .01, ***p < .001; M=Mean; SD=Standard Deviation; LL= Lower Limit; Upper Limit; IT=Injury Type; OT=Orthopedic Trauma; ABI=Acquired Brain Injury; CH= Child Modes; MCS=Maladaptive Coping Style; MPP= Maladaptive Punitive Parent; AM=Adaptive Mode.

ANOVA was performed on three broad level injury types. The result shows no significant difference among injury types and PTSD, however, the result demonstrates that ABI patients had high score on maladaptive schema mode, (M = 142.16, SD = 11.16) than orthopedic trauma patients (M = 138.65, SD = 11.22) F = 3.25, p<.05. Moreover, the result

reveals that adaptive mode was higher in individuals with multiple injuries ($M = 60.71$, $SD = 8.61$) and ABI ($M = 59.6$, $SD = 8.68$), $F = 6.40$, $p < .01$)

Table 23

Analysis of Variance (ANOVA) for PTSD among Participants with different Nature of Injury (N=317)

Variables	Df	F	η^2	*Post-hoc (Hochberg GT2)*			
PTSD	4, 312	3.41**	.04	*NI*	*M (SD)*	*NI*	*M (SD)*
				CF	40.11(6.58)	OF	39.37(5.54)
						TBI	41.57(7.99)
						NTBI	36.22(9.67)
						MI	39.35(8.86)
				OF	39.37(5.54)	TBI	41.57(7.99)
						NTBI	36.22(9.67)
						MI	39.35(8.86)
				TBI	41.57(7.99)	NTBI**	36.22(9.67)
						MI	39.35(8.86)
				NTBI	36.22(9.67)	MI	39.35(8.86)
MM	4,312	1.71	.02				
				CF	138.28(10.53)	OF	139.05(11.99
						TBI	142.44(11.22)
						NTBI	141.42(11.14)
						MI	140.42(11.83)
				OF	139.05(11.99	TBI	142.44(11.22)
						NTBI	141.42(11.14)
						MI	140.42(11.83)

				TBI	142.44(11.22)	NTBI	141.42(11.14)
						MI	140.42(11.83)
				NTBI	141.42(11.14)	MI	140.42(11.83)
MCS	4, 312	.18	.00				
				CF	101.76(9.47)	OF	100.35(10.04)
						TBI	101.23(11.64)
						NTBI	100.92(9.19)
						MI	101.50(9.80)
				OF	100.35(10.04)	TBI	101.23(11.64)
						NTBI	100.92(9.19)
						MI	101.50(9.80)
				TBI	101.23(11.64)	NTBI	100.92(9.19)
						MI	101.50(9.80)
				NTBI	100.92(9.19)	MI	101.50(9.80)
AM	4, 312	3.20*	.04				
				CF	56.52(9.97)	OF	56.23(8.55)
						TBI	59.57(8.37)
						NTBI	59.86(9.57)
						MI	60.71(8.61)
				OF	56.23(8.55)	TBI	59.57(8.37)
						NTBI	59.86(9.57)
						MI*	60.71(8.61)
				TBI	59.57(8.37)	NTBI	59.86(9.57)

			MI	60.71(8.61)
	NTBI	59.86(9.57)	MI	60.71(8.61)

Note. *p <. 05, **p < .01, ***p < .001; M=Mean; SD=Standard Deviation; LL= Lower Limit; Upper Limit; TBI=Traumatic Brain Injury; CF= Clos Fracture; OF=Open Fracture; NTBI= Non-Traumatic Brain Injury; MI=Multiple Injury; NI= Nature of Injury; MCS=Maladaptive Coping Styles; MM= Maladaptive Mode; AM= Adaptive Mode.

In table 23, ANOVA was applied on further sub-injury types, which indicates the PTSD was significant among TBI and NTBI Patients. The result shows TBI patients had high score on PTSD than NTBI patient's F (4,213) = 3.41, p<.005. Similarly, positive significance was also seen among open fracture and multiple injury patients on adaptive mode, F (4,312) = 3.20, p<.05). Furthermore, no significant level was seen on maladaptive schema modes and maladaptive coping style among injuries types.

Table 24

ANOVA for Comparison of Maladaptive Schema and Adaptive Schema and PTSD Severity Symptoms (N=317)

Variable	df	F	η^2	*Post-hoc (Hochberg GT2)*		
MM	3, 313	1.48	.01	*PS*	*M (SD)*	
				Mild	137.75(5.70)	Mild < Moderate
				Moderate	138.62(12.28)	Moderate < Severe
				Severe	140.30(11.50)	Severe < Extreme
				Extreme	142.68(10.37)	
MCS	3, 313	3.04*	.03			
				Mild	97.50(11.14)	Mild < Moderate
				Moderate	104.39(9.41)	Moderate > Severe*
				Severe	100.15(10.28)	Severe < Extreme
				Extreme	101.53(10.38)	
AM	3, 313	.99	.01			
				Mild	62.12(5.93)	Mild > Moderate
				Moderate	58.22(9.42)	Moderate ≤ Severe
				Severe	58.74(9.42)	Moderate < Extreme
				Extreme	57.06(7.94)	Severe < Extreme

Note. *p <. 05, **p < .01, ***p < .001; M=Mean; SD=Standard Deviation; LL= Lower Limit; Upper Limit; MI= Monthly Income; MA= Maladaptive Modes; AM=Adaptive Mode.

ANOVA was computed to assess the significance among different schema modes and PTSD severity. Result found extreme, (M = 142.68, SD = 10.37) and severe (M =

140.30, *SD* = 11.50) PTSD symptoms were seen in both maladaptive schema mode and maladaptive coping style, whereas mild PTSD symptoms were seen in adaptive mode.

Table 25

PTSD Severity Symptoms among Orthopedic Trauma, Acquired Brain Injury and Multiple Injury (N=317).

	PTSD Symptoms Severity					
Injury Type	*M*	*MOS*	*SS*	*ES*	χ^2	*p*
	n (%)	*n (%)*	*n (%)*	*n (%)*		
OT	1 (12.5)	23 (37.7)	29 (16.6)	99 (53.2)	22.33	<.01
ABI	5 (62.5)	28 (45.9)	63 (33.9)	36 (58.1)		
MI	2 (25.5)	10 (24.1)	24(12.9)	12 (19.4)		

Note. FS=Few Symptoms; MS= Mild Symptoms; MOS=Moderate Symptoms; SS=Severe Symptoms; ES=Extreme Symptoms; OT=Orthopedic Trauma; ABI=Acquired Brain Injury; MI= Multiple Injuries; IT=Injury Type

Chi-square was performed to assess the significant relation between PTSD severity and injury types, result indicates positive level of significance between PTSD severity and injury types $p<.01$.

Table 26

Cross tabulation of PTSD Symptoms Trauma Relatedness among Patients with Orthopedic Trauma, Acquired Brain Injury and Multiple Injury (N=317).

		Trauma Relatedness				
Variable	Injury Types	Definite n (%)	Probably n (%)	Unlikely n (%)	χ^2	p
PTSD Symptoms	Orthopedic Trauma n (137)	55 (32)	41 (33.1)	5 (23.8)	42.80	<.001
	Acquired Brain Injury n (132)	76 (44.2)	41 (33.1)	15 (71.4)		
	Multiple Injury n (48)	41 (23.8)	6 (4.8)	1 (4.8)		

Table 26, shows relation of PTSD symptoms and trauma relatedness among injury types, it demonstrates that 137 orthopedic trauma patients participate in study, all the patients have PTSD symptoms, however it shows whether PTSD symptoms has connection to trauma or not. The result indicated that (32%) PTSD symptoms were clear attributed to the index trauma, whereas (33.1%) symptoms are likely related to index trauma, clear connection cannot be made with trauma. The PTSD symptoms may or may not be linked with trauma. Similarly, (23.8%) PTSD symptoms were clear attributed connection other than trauma index. In the same way, in ABI, (44.2%) symptoms are attributed to trauma index, (33.1%) not clear attributed to trauma, and (71.4%) symptoms were clearly related to other cause. Furthermore, in multiple injury patients (23.8%) symptoms related to

existing trauma, (4.8%) not clear, and (4.8%) other cause that is any other minor trauma that is also contributing to the existing symptoms of PTSD.

Table 27

Cross tabulation of PTSD Symptoms Trauma Relatedness among Patients with Nature of Disease (N=317).

		Nature of injury						
Variable	TR	CF n=91	OF n=84	TBI n=93	Non-TBI n=28	MI n=54	χ^2	*p*
PTSD	Definite n=(%)	30 (17.4)	25 (14.5)	72 (41.9)	4 (2.3)	41(23.8)	103.25	<.001
	Probably n=(%)	36 (29)	41 (33.1)	20 (16.1)	21 (16.9)	6 (4.8)		
	Unlikely n=(%)	5(23.8)	0 (00)	4 (19)	11 (52.4)	1 (4.8)		

Note. TR=Trauma Relatedness; CF=Close Fracture; OF=Open Fracture; TBI=Traumatic Brain Injury; MI=Multiple Injury

Chi-square was performed on PTSD symptoms and trauma relatedness among patients with different nature of injury. It indicates positive significance in PTSD and trauma relatedness, $p<.001$.

Table 28

Cross tabulation of PTSD Severity Symptoms and Injury Types among Male and Female patients (N=317).

		PTSD Severity					
Variable	Injury Types	Mild n=4	Moderate n=49	Severe n=141	Extreme n=35	χ^2	*p*
Male n=229	OT n=104(45.4%)	1(25.0)	18 (36.7)	79 (50.0)	6 (17.1)	21.82	<.01
	ABI n=94 (41.0%)	3 (75.0)	23 (41.9)	45 (31.9)	23 (65.7)		
	MI n=31(13.5%)	0 (00.0)	8 (16.3)	17 (12.1)	6 (17.1)		
Female n=88	OT n=33(37.5%)	0 (00.0)	5 (41.7)	20 (44.4)	8 (29.6)	5.33	.51(ns)
	ABI n=38 (43.2%)	2 (50)	5 (41.7)	18 (40.0)	13 (48.1)		
	MI n=17(19.3%)	2(50)	2 (16.7)	7 (15.6)	6 (22.2)		

Note. ns=not significant

Table 28, shows that male patient with orthopedic trauma and ABI, ($\chi^2 = 2182$, $p<.01$), have severe and moderate PTSD symptoms than female patients with history of ABI and orthopedic trauma.

Table 29

Chi-Square of PTSD severity symptoms and trauma relatedness among Male and Female patients (N=317).

		PTSD Severity				
Variable	Trauma Relatedness	Moderate n=53	Severe n=141	Extreme n=35	χ^2	*p*
Male (n=229)	Definite n=122 (53.3%)	24 (19.7)	73 (51.8)	25 (71.4)	10.40	.11(ns)
	Probable n= 92 (40.2%)	24 (26.1)	61 (43.3)	7 (20.0)		
	Unlikely n=15(6.6%)	5 (33.3)	7 (5.0)	3 (8.6)		
Variable	Trauma Relatedness	Moderate n=16	Severe n=45	Extreme n=27	χ^2	*p*
Female (n=88)	Definite n=50 (53.3%)	9 (18.0)	21 (46.7)	20 (74.1)	7.90	.25(ns)
	Probable n= 32 (40.2%)	5 (15.6)	21 (46.7)	6 (22.2)		
	Unlikely n=6 (6.6%)	2 (33.3)	3 (6.7)	1 (3.7)		

Note. ns= not significant

The table 29, shows that extreme and severe PTSD symptoms are prominently attributed to Definite in male patients, in female patient's mild and extreme PTSD symptoms have clear connection with current Trauma, moderate and severe PTSD symptoms has no clear attributed to current trauma.

Beside from objectives and hypotheses some additional analysis was performed such as simple linear regression. These additional findings will enhance the worth of the current study as appeared that maladaptive schema mode predicts PTSD, whereas PTSD symptoms decrease in patients having adaptive mode.

Table 30

Simple Linear Regression analysis demonstrating effect of Maladaptive Schema Mode on the prediction of PTSD (N=317)

	PTSD	
		95% CI
Predictors	Model 1 *B*	*LL, UL*
(constant**)**	28.47***	[17.94, 39.00]
Maladaptive Mode	.08*	[.00, .16]
R^2	.01	
F	4.55*	

***p<.001; *p<.05

Table 30, shows results of simple linear regression analysis with maladaptive schema modes as predictor variable whereas PTSD as outcome variable. The .01 value of R^2 indicates that model explains 1% of the variance. Findings indicate that Maladaptive Schema Mode leads to PTSD symptoms.

Table 31

Simple Linear Regression analysis demonstrating effect of Adaptive Schema Mode on the prediction of PTSD (N=317)

	PTSD	
		95% CI
Predictors	Model 1 *B*	*LL, UL*
(constant**)**	43.16***	[37.60, 48.72]
Adaptive Mode	-.06	[-.15, .03
R^2	.00	
F	1.41	

***p<.001

Table 31, indicates results of simple linear regression analysis with Adaptive Schema Mode as predictor variable whereas PTSD as outcome variable. The .00 value of R^2 indicates that model explains 0% variance. The model is not significant. Findings indicate that PTSD symptoms decrease in adaptive schema mode.

Chapter IV

Discussion

The core objective of the current study was to find out the maladaptive schema mode and PTSD among individuals with a history of acquired brain injuries and orthopedic trauma. Moreover, the study was also an attempt to investigate the PTSD symptoms and the dysfunctional schema mode among TBI and non-TBI patients as well as individuals with a history of open and closed fractures of both upper and lower limbs. The present study was conducted in two phases, the first phase comprised of translation, adaptation and cross-language validation of CAPS-5 from English to Urdu, whereas the second phase focused on main variables such as the schema mode and PTSD in relation to orthopedic trauma and acquired brain injury patients.

In the present study, it was hypothesized that PTSD and dysfunctional schema modes would be positively correlated with acquired brain injury. Similarly, it was also hypothesized that PTSD symptoms and maladaptive schema modes were greater in TBI compared to non-TBI patients. The result of current study showed a positive correlation between PTSD and maladaptive schema among individuals with acquired brain injury. Furthermore, a significant mean difference was also found among TBI and non-TBI patients in term of PTSD and no significant mean difference was found among TBI and non-TBI patients on the maladaptive schema mode.

Previous studies on psychological disorders among ABI patients provided support for the result of the current study. It has been observed in multiple cases analyses examining frontal lobe lesions and temporal lobe epilepsy that the maladaptive schema modes has

been used frequently (Zaman & Khalily, 2016). Furthermore, it is clear from previous research that brain injuries have positive relations to psychological health or disorders. These disorders, including depression and affective disorders may be responsible for reducing individual's rehabilitation and recovery. The sample consisted of 51 clients from Ohio State University, in Columbus (Corrigan & Deutschle 2008; Rapoport et al., 2006). In addition, high rates of depression have been reported in acquired brain injury patients. A total of 48 participants took part in a study, separated into patients with brain tumors (n=25) and TBI (n=23). All the participants were studied at Princess Alexander Hospital in Queensland (Ownsworth et al., 2008).

The risk of psychiatric symptoms increased after brain injuries (Anstey et al., 2004), which may be primary or secondary symptoms. The primary symptoms occur after brain injuries including thinking, concentration and emotion regulation, whereas, secondary symptoms such difficulty in relationship, schooling, and coping may also be affected after brain injuries. One of the studies showed that depression is increased in ABI patients (Bay, 2009; Silver, McAllister, & Arciniegas, 2009)

In addition, when Individuals are continuously exposed to violence and traumatic events with greater magnitude than such exposure might damage the psychological health of individuals in general (Marzuk, 1996), and in Pakistani culture and society in particular (Khalily, 2011). The emergence and development of maladaptive schemas are the outcomes of PTSD. Consequently, problems related to maladaptive schemas in PTSD recently become important in the field of research (Cockram, Drummond, & Lee, 2010; Shorey, Stuart, & Anderson, 2013).

Moreover, a positive correlation has been proven in several studies between schema modes and personality disorders. One study reported that all personality disorders were positively correlated using a schema questionnaire. The study's sample consisted of 48 participants with diagnosed personality disorders (Jovev & Jackson, 2004). A study revealed that mild TBI patients had a persistent risk of PTSD; patients with a history of mild TBI were about 2.8% more likely to develop psychiatric illnesses compared to non-TBI patients (Fann et al., 2004). Furthermore, a clinical interview study on a large civilian sample revealed that persistent TBI patients had significantly higher risks of developing PTSD. A total of "1084" traumatically injured patients from four different hospitals in Australia were studied (Bryant et al., 2010). The symptoms of PTSD mostly appeared a few days or weeks after trauma, but in few cases, the PTSD symptoms developed at least six months after trauma exposure, a delayed onset of symptoms (Bryant, 2003).

In addition, aggressive behaviors, including both verbal and physical aggression, emotional problems, and anger have been seen in brain injured patients, especially those with injury to the frontal lobe (Baguley et al., 2006). Depression was linked with right parietal and occipital lobe lesions (Jorge et al., 2004). Furthermore, PTSD symptoms have been observed in mild and moderate TBI patients, especially in soldiers. Cross sectional and longitudinal data from 624 TBI patients were collected from Sydney Australia. Among these patients, 228 were considered moderate or serious cases (Barker et al., 2013). Moreover, patients with TBI and PTSD may have shared problems related to sleep, cognition, depression, and anxiety (Barker et al., 2013).

As hypothesized in the present study, PTSD symptoms and maladaptive schema were more common in patients with multiple injuries compared to orthopedic trauma and

ABI. Similarly, the PTSD level and the dysfunctional schema mode were more prevalent among open fracture than closed fracture cases. The result showed no significant mean difference among orthopedic trauma, ABI, and multiple injury patients in term of PTSD; however, a significant mean difference was found between orthopedic trauma, and ABI related to the maladaptive schema mode. The result demonstrates that the maladaptive schema modes were higher in ABI patients than orthopedic trauma patients. Moreover, no significant mean differences were found between open and closed fracture cases in term of the maladaptive schema mode and PTSD.

A few studies provided support to the current study's result. It has been observed in a study from Scotland that survivors of interpersonal trauma have high scores in term of early maladaptive schema. Two groups were recruited for the study, the clinical group consisted of (n=82) and the control group (n=78) participants (Karatzias, Jowett, Begley, & Deas, 2016). Furthermore, it has been made clear from the previous studies that patients who were exposed to orthopedic trauma may have reported PTSD. One study conducted in 2002 in the United States consisted of a total of 397 randomly recruited patients among these patients 156 met the criteria for intentional and unintentional injuries (Yehuda, McFarlane, & Shalev, 1998; Zatzick, Jurkovich, Gentilello, Wisner, & Rivara, 2002). One of the previous studies, however, did not provide support for the result of the present study. It has been observed that axis1 psychiatric disorders, including depression and PTSD, were found more in closed than open fracture patients. This result was from a cross-sectional study conducted in India. A total of 100 patients with an age range of 18-65 years were randomly assigned in the study. The patients had a history of trauma with long bone fractures and the data was collected 4-6 weeks after trauma (Singh & Gupte, 2015).

However, another study provided support for the present hypothesis that no positive association would be seen between closed and open fractures and psychiatric symptoms. A total of 250 patients in North America were screened for the study, 215 among them showed a willingness to take part in the study (Bhandari et al., 2008). However, the hypothesis was not supported by the study by (Crichlow et al., 2006), who reported that psychiatric symptoms increased in open fracture cases. No exactly relevant published study was found on the maladaptive schema modes in orthopedic trauma patients. However, a study with more relevance to the schema mode was one examining cognitive dysfunction. That study revealed that cognitive dysfunction, particularly dementia and delirium, was found in hip fracture patients (Chaudhry, Devereaux, & Bhandari, 2013).

Furthermore, the study hypothesized that PTSD symptoms and maladaptive schema modes were higher in patients having a history of fracture of lower limbs as compared to fracture in upper limbs. The result demonstrated that there was no significance mean differences in upper and lower limbs fracture patients. A study provided support that there was no significant association between major clinical disorder and lower limbs fracture. This study was conducted at Massachusetts General hospital in Boston, a total of “161” patients who had history of orthopedic trauma (Crichlow et al., 2006). However, another study revealed a positive association between clinical disorders and limbs fracture (Chaudhury, John, Kumar, & Singh, 2002). Moreover, it has been predicted that the severe lower extremity fracture may have been strongly related to poor physical health and psychological distress (McCarthy et al., 2003).

Although, PTSD commonly associated with military warfare. However, PTSD may also occur in civilian population who have history of sustained muscukelsketal injuries. It

may inhibit physical, emotional and functional rehabilitation of individuals. Moreover, no specific type of fracture may be responsible for PTSD, and PTSD symptoms are significantly associated with any type of orthopedic trauma. Furthermore, the study revealed that PTSD may have significant impact on individual daily routine works and may slow down the rehabilitation and recovery process. In addition, the PTSD may also impede daily life activities such as shopping, bathing, eating, hygiene, sports and other household life activities (Aaron et al., 2011).

One of the research works reported that depressive disorder appears highly in orthopedic trauma patients in Pakistan, the social environment and pathology of bone are also linked with depression (Husain et al., 2010). Depression ratio is high in developing countries like Pakistan and more so in people who attend the outpatient clinic (Husain, Chaudhry, Afsar, & Creed, 2004). It might be expected that depression is highly associated with musculoskeletal complaint and physical injuries presenting at orthopedic clinics. Moreover, a large number of people who injured during the earthquake in 2005 in Pakistan also showed PTSD symptoms. One of the studies conducted after the earthquake roughly estimated that approximately 51% victims had soft tissue muscle injuries 13% had spinal trauma and 36% had bone related injuries.

The present study also hypothesized that patients with maladaptive schema and the maladaptive coping styles would have extreme and severe PTSD symptoms than adaptive mode. The current result indicated that patients with the maladaptive schema modes and the maladaptive coping style had extreme and severe PTSD symptoms as compared to adaptive mode. A more relevance study provides a support to maladaptive schema and PTSD severity, the study revealed that preexistence negative consideration or appraisal

about oneself lead to PTSD severity. That study consisted of 68 trainee firefighter and the data were collected during training session before trauma exposure (Bryant & Guthrie, 2007). Another study also provided a support to maladaptive coping style and PTSD severity. It has been observed in study that maladaptive coping styles such as avoidant and action oriented coping was found among Veterans (Grosso et al., 2014).

Despite, the factors related to physical trauma, the current study attempted to find out the association of demographics (gender, education, income, marital status and occupation) with PTSD, and schema modes. The result of the present study showed that PTSD symptoms were higher in female than male patients. Individuals living with low earning, and little academics had higher score in term of PTSD. Moreover, PTSD symptoms were increased in students and unemployed compared to employed. In addition to it, the result showed a significance mean difference among different age groups of people. The PTSD symptoms were higher among young, age range 18-40 and in older people (above 55 years).

A few studies provide support to the current result. One of the studies showed, women developed more severe PTSD symptoms as compared to men, however, the gender differences was very small in age ranged 18-24, and older than 55 age group. It was a retrospective study of 287 participants, who completed interview in three different times, six weeks, six months, and one year after motor vehicle accidents. (Kobayashi et al., 2018). Similarly, another study also provided support to present study, the study revealed, when men and women encountered to the same type of traumatic events, women reported more PTSD symptoms than men (Gavranidou & Rosner, 2003). Furthermore, the relation between age and PTSD was also found in a study, it revealed that highest prevalence rates

of PTSD was seen among men before the age of 40 years and the same PTSD ratio was found in women in early 50 year of age (Ditlevsen & Elklit, 2010). Similarly, a study showed that PTSD symptoms were higher in women than men, and these symptoms were increased in younger people than older. The findings of the study showed that low income and urbanization may also play a vital role in PTSD screening. A study was conducted at Baltimore City in Maryland, a total of "3722" participants took part in the study, among 3722 participants, 2104 completed the PTSD Checklist (Parto et al., 2011). In addition, meta- analysis study was conducted in Germany. The data were drawn from 32 different studies, among which four were related to medical, and psychological literature database. It revealed that socio-demographic risk factors such as low education, race, and minority ethnic groups were positively associated with PTSD (Xue et al., 2015).

The additional findings investigated the association between maladaptive schema mode and PTSD symptoms in individuals with a history of acquired brain injury and orthopedic trauma. It would hypothesize that survivors of acquired brain injury and orthopedic trauma had elevated maladaptive schema mode, and these maladaptive schema modes predicted PTSD symptoms among survivors. It was explored in the current study that schema has a positive association with PTSD. The cognitive model of PTSD in individuals with a history of interpersonal trauma presented by (A. Ehlers & D. M. Clark, 2000) provided support to the result of current study. Similarly, another study has also supported the finding of the current study. The study had revealed, the early maladaptive schema modes significantly predict PTSD, among male and female health workers with a history of trauma. In this study, total 77 participants took part and filled the questionnaire of impact event scale and defense style questionnaire (Price, 2007).

In short, the psychological stress and pain density affect rehabilitation, immune system, and disturbed wound healing process after surgery that may lead to physical impairment. So, early diagnosis may have helped the health care professionals in treatment, and rehabilitation processes. The early diagnosis and treatment may also be helpful in reducing the symptoms severity, which is better for individual and as well as for society.

Conclusion

The current study was conducted in two phases, in initial phase translation and cross language adaptation of Clinician Administered PTSD Scale (CAPS-5) from English to Urdu was done. In the second phase, the purposes of the study were multifold. It focused to establish the relation among different study variables through using the advance statistical analysis. Keeping in view, that brain injury and musculoskeletal injury are leading problems in Pakistani, and individual are experiencing greater challenges after trauma, so this group was taken for research investigation. The result of the present study showed that female patients had high PTSD symptoms than male. According to result young adults had more PTSD symptoms than late middle young age. The PTSD level decrease when education and monthly income increase. Moreover, the PTSD and maladaptive schema mode were higher in TBI as compared to non-TBI patients, while no significant mean difference was seen among open and close fracture over PTSD and maladaptive schema mode.

Furthermore, result of the current study explored that severe PTSD symptoms were higher in maladaptive schema mode and maladaptive coping styles. The findings showed the relation of PTSD symptoms to trauma index among patients. Moreover, findings revealed that all PTSD symptoms were not clearly associated with trauma index, however,

some patients have PTSD symptoms and had not clear connection to trauma index. In addition to it, injury severity may also be responsible for developing PTSD symptoms. The result showed that PTSD level was higher in moderate than mild injury patients.

Limitations and Suggestions

The cross sectional study was conducted to compare the maladaptive schema mode and PTSD among orthopedic trauma and ABI patients. This was a different and interesting study conducted in Pakistan. This study has some limitations. Patients were drawn from tertiary care hospital and Pakistan Institute of Medical Sciences (PIMS), so the result cannot be generalized to all other areas of Pakistan. Different demographic profiles of participants may have affected the results. Furthermore, schema mode was used only on clinical samples, so the finding of current study could not be generalized to non-clinical populations. Hence, small sample size of acquired brain injury and orthopedic trauma may limit the generalizability. Moreover, in light of fact for diagnosis of PTSD, the study sample was enrolled 1 month after trauma. It can only demonstrate the result, but cannot comment or explanation on the causation. The cause and nature of trauma was not studied that could be addressed in future studies. The current study only focused on TBI patients as a whole, while the effect of injury over specific brain parts or lobes could also be studied in future researches.

In addition, the effect of pharmacological therapy was not controlled in the study. The prescribed medicines they have used for the treatment of physical disorder may also effect the result of study. The nature of treatment, hospital setting, religious, cultural and social support system were not observed in the study. So these factors may have an important role in the development of schema and PTSD in individuals.

Implications of Research and Future Directions

This study has highlighted patient's preference for different schema modes and coping strategies, which may help the therapists working in clinical settings with client to identify causes of interpersonal tension and may also help the client to understand the maladaptive relationships. Different psychological rehabilitation techniques are used for clinical populations such as Cognitive behavior therapy (CBT) and acceptance and commitment therapy (ACT). However, these rehabilitation strategies are time consuming, so there is a demand to investigate a new rehabilitation model of schema for clinical sample like acquired brain injury and orthopedic trauma patients, which specifically focus on the role of early experiences and development of core beliefs (schema), and also focus on coping mechanism. So, the schema therapy is one such rehabilitation model that addresses these beliefs and coping styles. Trauma and accidents have brought negative changes in brain functions in this regard psychological situation is the extreme demand of both patients and caregivers. The patients of both ABI and orthopedic trauma has faced changes in social skills, body images and social relationship. Thus, in turn new solutions are required for these changes such as hobbies, playing and relationship with peers and family. Furthermore, early assessment and management of PTSD and dysfunctional schema modes will increase the probability to improve patients psychological condition, outcomes and will reduce the severity of persistent symptoms. So, the findings of this study provide a possible pathway for effective rehabilitation and intervention plan for individuals suffering from ABI and orthopedic trauma. Results of the study will be helpful for intra-disciplinary students of neuropsychology, psychiatry graduate students as well as practicing clinicians interested in developing their knowledge. The study may also help the survivors of

traumatized victims, caregivers, and will also advocate for persons with acquired brain injury.

The current study focused on only two types of physical injury such as ABI and orthopedic trauma with schema mode, the researchers can replicate the study in future with some new physical injury in broader perspectives. In addition, this study was conducted on clinical sample PTSD, like brain injury and musculoskeletal patient, it would be useful to conduct research on non-clinical and clinical population, and they have variety of physical and psychological problems. Moreover, it is important that prospective design in future may determine the association between maladaptive schema mode and PTSD. This is a novel study providing a linkage between clinical psychology and neuropsychology in the cultural context of Pakistani participants.

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Appendices

Appendix A

Ethical Review Committee Certificate

INTERNATIONAL ISLAMIC UNIVERSITY ISLAMABAD (PAKISTAN)
FACULTY OF SOCIAL SCIENCES
DEPARTMENT OF PSYCHOLOGY
+9251-9019902

No. IIU-FSS/PSY/DPEC/-2018- June 11, 2018

Mr. Sabir Zaman
Department of Psychology,
International Islamic University, Islamabad

REFERENCE: "EXPLORING DYSFUNCTIONAL SCHEMA MODES AND PTSD IN INDIVIDUALS WITH ACQUIRED BRAIN INJURY AND ORTHOPEDIC TRAUMA"

Thank you for the application with attached documents on 7th June, 2018 for submitting a request for the above mentioned title research to the committee (DPEC) for approval.

On behalf of the committee, I am pleased to confirm a favorable ethical opinion for the above research on the basis described in the application form and supporting documents. The favorable opinion is given that you comply with the stipulation set out in the committee mandate.

The list of documents reviewed and approved by the committee is as follows.

1. Application form
2. Informed consent
3. Information sheet

With the committee's best wishes for the success of this research article.

Yours Sincerely

(Prof. Dr. Muhammad Tahir Khalily)
Chairman, Department of Psychology
Convener of Department of Psychology IIUI Ethics Committee (DPEC)

Appendix-B

Supervisory Certificate

INTERNATIONAL ISLAMIC UNIVERSITY, ISLAMABAD
MEDICAL CENTRE
PSYCHOLOGICAL SERVICES CLINIC

No. IIU-FSS/PSY/2018- September 7th, 2018

Head of Department Neurosurgery

Pakistan Institute of Medical Sciences Islamabad.

Dear Sir,

Greeting from International Islamic University Islamabad Department of Psychology. May I introduce Mr. Sabir Zaman student of Psychology Registration No 37-FSSPSYPHD/F14. He is working on his PhD dissertation title as *"EXPLORING DYSFUNCTIONAL SCHEMA MODES AND PTSD IN INDIVIDUAL WITH ACQUIRED BRAIN INJURY AND ORTHOPEDIC* TRAUMA" under my supervision. In this regard your cooperation is needed. You are requested kindly allow Mr. Sabir Zaman to collect data from your Prestigious Institution. He will acknowledge your kind assistance and cooperation in PhD dissertation.

Thanks

(Dr. KehkashanArouj)
Assistant Professor/Supervisor
Department of Psychology
International Islamic University, Islamabad.

Appendix-B,1

INTERNATIONAL ISLAMIC UNIVERSITY, ISLAMABAD
MEDICAL CENTRE
PSYCHOLOGICAL SERVICES CLINIC

No. IIU-FSS/PSY/2018- September 7th, 2018

Head of Department Orthopedic Surgery

Pakistan Institute of Medical Sciences Islamabad.

Dear Sir,

Greeting from International Islamic University Islamabad Department of Psychology. May I introduce Mr. Sabir Zaman student of Psychology Registration No 37-FSSPSYPHD/F14. He is working on his PhD dissertation title as *"EXPLORING DYSFUNCTIONAL SCHEMA MODES AND PTSD IN INDIVIDUAL WITH ACQUIRED BRAIN INJURY AND ORTHOPEDIC TRAUMA"* under my supervision. In this regard your cooperation is needed. You are requested kindly allow Mr. Sabir Zaman to collect data from your Prestigious Institution. He will acknowledge your kind assistance and cooperation in PhD dissertation.

Thanks

(Dr. KehkashanArouj)
Assistant Professor/Supervisor
Department of Psychology
International Islamic University, Islamabad

Appendix "C"

Consent Form

السلام وعلیکم

میں انٹرنشنل اسلامک یونیورسٹی اسلام آباد میں ڈاکٹریٹ کا طالبعلم ہوں۔ حادثے کی وجہ سے ہاتھ پاؤں کی ہڈی ٹوٹنے اور سر پر چوٹ لگنے والے مریضوں کے نفساتی مسائل پر تحقیق کر رہا ہوں۔

EXPLORING DYSFUNCTIONAL SCHEMA MODE AND PTSD SYMPTOM IN INDIVIDUALS WITH ACQUIRED BRAIN INJURY AND ORTHOPEDIC TRAUMA.

آپ کا اس تحقیق میں حِصہ لینا مکمل طور پر رضاکارانہ ہے۔ آپ کے فراہم کردہ معلومات کو صیغہ رازرکھا جائے گا۔ اگر آپ کو اس تحقیق پر کوئی تحفظات ہوں، تو آپ کسی بھی وقت اس سے الگ ہو سکتے ہوں۔ آپ کے مہیہ کردہ معلومات کو صرف تحقیق کے لئے استعمال کی جائے گی۔ اگر آپ متعفق ہے تو برائے مہربانی خانے پر نشان لگائیں۔

1): میں تصدیق کرتا ہوں کہ مندرجہ بالا مطالعہ کے لئے معلومات سے مکمل طور پر آگاہ کیا گیا اور مجھے سوالات کا موقع دیا گیا تھا۔ ☐

2): میں تصدیق کرتا/کرتی ہوں کہ میرے فراہم کردہ معلومات کو تحقیقی مطبوعات میں استعمال میں کیا جا سکتا ہے۔اور میں اس کے لئے رضامندی ظاہر کرتا/کرتی ہوں۔ ☐

3): میں تصدیق کرتا/کرتی ہوں کہ میرا اس تحقیق میں حصہ لینا مکمل طور پر رضاکارانہ ہے اور میں کسی بھی وقت اس سے الگ ہو سکتا/سکتی ہوں ☐

دستخط رائے کنندہ ----------تاریخ----------

تحقیق کنندہ کا نام اور دستخط----------

Appendix -D

DEMOGRAPHIC SHEET

نام----------عمر----------جنس----------

تعلیم----------ماہانہ آمدنی----------کام کی نوعیت----------

آپ کا تعلق کہاں سے ہے----------شادی شدہ/غیرشادی شدہ----------ہاں----------نہیں----------

بچے کتنے ہیں----------والدین حیات ہیں----------ہاں-----نہیں------اگر نہیں تو وفات کیسی ہوئی تھی----------

آپ کتنے بہن بھائی ہیں----------آپ کا کون سا نمبر ہے----------

حادثے کے متعلق چند سوالات

1): حادثہ کب آور کیسے ہوا تھا----------

2): حادثے کی نوعیت کیا تھا----------

3): سر پر چوٹکے علاوہ باقی جسم پر کوئی چوٹ آئی تھی----------

4): حادثے میں ہاتھ پاؤں کی کوئی ہڈی ٹوٹ گئی تھی----------ہاں---------نہیں----------

4): جسم سے کوئی خون بہا تھا----------ہاں----------نہیں----------

5): حادثے کے دوران آپ اکیلے تھے یا ساتھ میں کوئی دوسرا بھی تھا----------

6): حادثے کے وقت آپ بے ہوش ہوئے تھے اگر ہاں تو کتنے وقت کے لئے----------

Appendix E

Clinician-Administered PTSD Scale (APS-5 URDU)

معیار الف CRITERION A

ذیل میں سے ایک یا زیادہ طریقوں سے ممکنہ موت یا موت ک خطرہ، جنسی تشدد یا شدید چوٹ کا سامنا ہونا۔
1) حادثاتی واقعات کا براہ راست تجربہ ہونا۔
2) ذاتی طور پران واقعات کا عینی شاہدھونا جو دوسرے کیساتھ پیش آئےہوں۔
3) اپنے قریبی رشتہ دار یا دوست کو پیش آنے والے حادثاتی کو پوری طرح جاننا اور اس بات کا بھی علم ہونا کہ آپ کی رشتہ داریا دوست کی موت لازمی طور پر تشدد یا حادثاتی طور پررونما ہوئی ہے۔
4) حادثاتی واقعات کے کراہت آمیز تفصیلات کا شدد کیساتھ سامنا ہونا یا تجربہ ہونا (مثلاً وہ پہلا شخص جو انسانی باقیات کو جمع کرتا ہو۔ وہ پولیس افسران جن کا بچوں کیساتھ ہونےوالی زیادتی کی تفصیلات سے بار بار سامنا ہونا)۔ معیار4۔ الف ذرائع ابلاغ، ٹی وی فلم کے ذریعے حاصل ہونے والے معلومات پر لاگو نہیں ہوتا، ختکہ اس کا تعلق پیشہ وارنہ امور سے نہ ہو۔

ذہنی دباؤکے تجربات کے بارے میں جو سوالانامہ آپ نے پُر کیا ہے۔اس کے بارے میں آپ سے پوچھنے جا رہا ہوں/جارہی ہوں۔ پہلے میں پوچھوں گا،کہ آپ تھوڑا بہت اس واقعہ کے بارے میں بتائیں گے۔ جو آپ کےلئے بدترین تھا،پھر آپ سے یہ پوچھوں گا،کہ اس واقعہ نے گزشتہ ماہ سے آپ کو کس طرح متاثر کیا، عمومًا مجھے زیادہ معلومات کی ضرورت نہیں صرف اتنا کافی ہے۔کسی بھی طرح کا مسئلہ جو آپ کےساتھ پیش آیا ان کو سمجھ سکوں۔برائے مہربانی مجھے بتایئے گا اگر آپ کے کوئی سوالات ہیں یا آپ کو کسی چیز کی سمجھ نہیں آرہی ہے،شروع کرنے پہلے کیا آپ کے کوئی سوالات ہیں جو واقعہ آپ نے بتایا کہ بد ترین تھا میں چاہتا ہوں کہ آپ اس واقعے کے متعلق محتصرً بیان کریں کہ کیا ہوا تھا۔

مخصوص واقعہ----------

کیا ہوا تھا؟ آپ کی عمر کیا تھی؟ آپ کیسے شامل ہوئے؟ کوئی دوسرا بھی تھا؟ کیا کوئی شدید زخمی یا جا بحق ہوا تھا؟ کیا کسی کی زندگی خطرے میں تھی؟ یہ کتنی مرتبہ ہوا تھا؟	کس طرح سامنا ہوا تجربہ ہونا------- عینی شاہد ہونا----- واقعات کے بارے جاننا--- خطرناک حالات کا سامنا ہونا زندگی کوخطرہ ؟ ہاں، نہیں، خود،----دوسرے جنسی تشدد؟ ہاں، نہیں، خود،----دوسرے معیار الف پرپورا اترنا؟ ہاں---کسی حد تک/غالبًا----نہیں

پس بقایا انٹرویو کیلۓمیں چاہتا ہوں کہ آپ اس واقعے کوذہن میں رکھیں،شاید ان مسائل میں سے کچھ آپ کیساتھ پہلے پیش آچکے ہوں گے لیکن موجودہ انٹرویو کیلئے ہم صرف گزشتہ ماہ میں پیش آنے والے مسائل پر توجہ مرکوز کررہے ہیں۔ ہر مسلئے کے بارے میں،آپ سے پوچھوں گا۔ کہ گزشتہ ماہ یہ آپ کے ساتھ پیش آیا ہے اگر ایسا ہے تو کتنی مرتبہ اور آپ کو کس حد تک اس نے پریشان کیا۔

Criterion B

ذیل میں ایک یا ایک سے زیادہ حادثاتی واقعات سے جُڑے بجا مداخلت کرنے والی علامات کا ہونا، جو حادثاتی واقعات کے نمودار ہوتی ہیں۔
سوال-1 (بی-1)
حادثاتی واقعات کے بارے میں مسلسل غیر ارادی، جبری پریشان کُن،یاداشتیں: نوٹ 6سال سے زیادہ عمر کے بچوں کا بار بار ایسا کھیل کھیلنا جس میں حادثاتی واقعہ/واقعات کے مرکزی خیالات اور پہلوؤں کا اظہار ہو۔

گزشتہ ماہ جاگنے کی حالت میں آپ نے واقعہ کے غیر مطلوب یادوں کا سامنا کیا ہے۔ خوابوں کاشمار نہ کریں؟(درجہ بندی0-غیر موجود اگر صرف خوابوں کے دوران موجود ہو)۔ جب آپ نے واقعہ کو یاد کرنا شروع کیا تو یہ کیسے واقع ہوا؟ (اگر واضح نہیں) کیا یہ ناچاہتی ہوئے یادیں ہیں۔آپ واقعہ کے بارے میں کسی مقصد سے سوچ رہے ہیں؟ (درجہ بندی0-غیر موجود جبری اور بے جا مداخلت کے ادراک کی صورت)۔ ان یاداشتوں نے آپ کو کس حد تک پریشان کیا؟ کیاآپ اس قابل ہیں کہ ان یاداشتوں کو ذہن سے باہر نکال دیں اور کسی اور چیز کے متعلق سوچیں؟ (اگر واضح نہیں)(مجموعی طور یہ مسئلہ آپ کے لئے کتنا بڑا ہے؟اور کس طرح؟) دائرہ لگائیں۔ تکلیف دہ- کم، قدرے موجود، نمایاں، بہت زیادہ، گزشتہ ماہ اکثر آپ کو یہ یادیں کتنی مرتبہ----------	0- غیر موجود 1- کم 2- درمیانے درجہ 3-شدید نمایاں طور پر مجود 4- حد سے زیادہ /نا قابل یقیین اہم درجہ بندی - کثرت /تکلیف کی شدت درمیانی درجہ- کم از کم مہینے میں دو مرتبہ تکلیف کا واضح طورپر موجود ہونا، تکلیف دہ یادشتوں کو ترک کرنے میں کچھ دشواری آنا شدید- کم از کم ہفتے میں دو مرتبہ نمایاں تکلیف کا ہونا، تکلیف دہ یادشتوں کو ترک کرنے میں کسی حد تک دشواری پیش آنا

سوال – 2-(بی-2)

باربر تکلیف دہ خوابوں جن کا مواد اور خواب کے اثرات سانحے کے متعلق ہوں۔ نوٹ : بچوں میں ڈاروٴنے خواب ہوسکتے ہیں،جن میں مواد کی شناخت نہیں ہوتی۔

گزشتہ ماہ کیا آپ نے واقعہ کے بارے میں ناخوشگوار خواب دیھکے ہیں(ایک عام خواب بیان کریں کیا پیش آتا ہے؟) (اگر واضح نہیں)(کیا انہوں نے آپ کو جگایا؟)۔ اگر ہاں۔ جب آپ جاگے تو آپ نے کیا محسوس کیا؟ دوبارہ سونے میں کتنا وقت لگا؟)۔ اگر دوبارہ نیند نہ آنے کی شکایت ہوئی۔(آپ کی نیند کس حد تک متا ثرہوئی؟ ان خوابوں نے آپکو کس حد تک پریشان کیا؟	0- غیر موجود 1- کم 2- درمیانے درجہ 3-شدید نمایاں طور پر مجود 4- حد سے زیادہ /نا قابل یقیین اہم درجہ بندی # کثرت /تکلیف کی شدت درمیانی درجہ- کم از کم مہینے میں دو مرتبہ تکلیف کا واضح طورپر موجود ہونا، ایک گھنٹے سے کم نیند میں خلل/خرابہونا شدید- کم از کم ہفتے میں دو مرتبہ نمایاں تکلیف کا ہونا،، ایک گھنٹے سے زیاد نیند میں خلل/خرابہونا
دائرہ لگائیں۔ تکلیف دہ- کم، قدرے موجود، نمایاں، بہت زیادہ، گزشتہ ماہ کتنی بار آپ کو ایسے خواب آئے؟ کتنی مرتبہ----------	

سوال -3 (بی-3)

لاتلقعی/بیگانگی کا ردعمل مثال کے طور پرماضی کی ایسی یادیں جس میں انسان ایسا محسوس کرتاہے یا عمل کرتا ہے جیسے کہ تکلیف دہ واقعہ /واقعات دوبارہ پیش آرہے ہوں (اس طرح کےردعمل تواتر سے پیش آسکتے ہیں۔ جسکا شدید اظہار گردونواخ سے واقفیت کا کھو جانا ہے)۔نوٹ:بچوں میں کھیل کے دوران مخصوص تکلیف دہ واقعہ دوبارہ سے پیش آنا۔

گزشتہ ماہ کیا ایسا اوقات /لمحات آئے ہیں۔ جب آپ نے اچانک محسوس یا عمل کیا ہو جیسا کہ واقعہ /واقعات حقیقتًا میں دوبارہ رونما ہو رہے ہوں؟ (اگر واضح نہیں)(اس کے متعلق سوچنے سے مختلف ہے یا اس کے متعلق خواب دیکھنے سے مختلف ہے، اب میں آپ سے ماضی کی یادوں کے بارے میں پوچھ رہا ہوں ۔ آپ محسوس کرتے ہیں کہ آپ حقیقتًا واقعہ کے وقت/نوعیت میں چلے گئے ہیں۔ حقیقتًا دوبارہ تجربہ کرنا)۔	0- غیر موجود 1-کم 2- درمیانے درجہ 3-شدید نمایاں طور پر مجود 4- حد سے زیادہ /نا قابل یقیین اہم درجہ بندی - کثرت /لاتعلقی کی شدت

کسی حد تک ایسا لگتا ہے کہ واقعہ/واقعات دوبارہ سے رونما ہو دہے ہیں۔(کیا اس کے بارے میں آپ سمجھ نہیں پا رہے ہیں درحقیقت آپ کہاں ہیں؟) جب ایسا ہو رہا ہوتا ہےتو آپ کیا کرتے ہیں ؟ (کیا دوسرے لوگ آپ کے عمل کو نوٹ کرتے ہیں ؟ وہ کیا کہتے ہیں؟ یہ کتنی دیر تکموجود رہتا ہے؟	درمیانی درجہ- کم از کم مہینے میں دو مرتبہ بیگانگی خصوصیت کا واضح طور پر موجود ہونا۔اپنے اردگرسے کچھ واقفیت برقرار رکھنا،لیکن اپنےطور طریقے سے واقعہ کو دوبارہ سے زندہ رکھنا جو کہ واضح طور پر خیالات اور یاداشتوں کے برعکس ہوتا ہے۔ شدید- کم از کم ہفتے میں دو مرتبہ نمایاں بیگانگی خصوصیت کا ہونا، ان بیگانگی خصوصیت کا اظہار تصاویر آوازیں اور مہک/ہوکی صورت میں کرنا۔
دائرہ لگائیں۔ لاتعلقی/بیگانگی- کم، قدرے موجود، نمایاں، بہت زیادہ، گزشتہ ماہ یہ کتنی مرتبہ رونما ہوا اور کتنی مرتبہ----------	

سوال - 4(بی-4)

ایسے اندرونی یا بیرونی اشارے جو کہ حادثاتی واقعات کے پہلوؤنکے ساتھ مشابہت رکھتے ہوں طویل اور شدید نفسیاتی تکلیف کا باعث بنتے ہیں۔

گزشتہ ماہ کیا آپ جذباتی/ہیجانی طور پر پریشان ہوئے تھے جب آپ کو کسی چیز نے سانحہ کی یاد دلائی ہو؟ کس قسم کی یادوں نے آپ کو پریشان کیا؟ ان یادوں نے آپ کو کس حد تک تنگ کیا؟ جب یہ رونما ہوتا ہے تو کیا آپ اپنے کو پُر سکون رکھنے کی صلاحیت رکھتے ہیں۔؟ (اور ایسا کرنے میں کتنا وقت لگتاہے؟) (اگر واضح نہیں) (مجموعی طور پر آپ کیلئےکتنا بڑا مسئلہ ہے؟ کس حد تک؟)	0- غیر موجود 1- کم 2- درمیانے درجہ 3-شدید نمایاں طور پر مجود 4- حد سے زیادہ /نا قابل یقیین اہم درجہ بندی - کثرت /تکلیف کی شدت درمیانی درجہ- کم از کم مہینے میں دو مرتبہ تکلیف کا واضح طور پر موجود ہونا بحالی میں کچھ دشواری پیش آنا شدید- کم از کم ہفتے میں دو مرتبہ تکلیف کا نمایاں طور ہونا، بحالی میں کسی حد تک دشواری پیش آنا۔
دائرہ لگائیں۔ تکلیف دہ- کم، قدرے موجود، نمایاں، بہت زیادہ، گزشتہ ماہ یہ کتنی بار پیش آیا؟ کتنی مرتبہ----------	

سوال نمبر 5 (بی-5)

وہ قبل ذکر جسمانی ردعمل، ایسے اندرونی یا بیرونی اشارے جو حادثاتی واقعات کے کسی بھی پہلوکے ساتھ مطابقت /مشابہت رکھتےہوں۔

گزشتہ ماہ جب کسی چیز نے واقعہ کی یاد دلایا ہو تو آپ نے کوئی جسمانی ردعمل ظاہر کیا؟ کیا آپ مجھے کچھ مثالیں دے سکتے ہے ؟ (کیا آپ کی دل کی دھڑکن تیز، سانس لینے میں تبدیلی آئی؟ کوئی پسینہ یا حقیقی میں دباؤ یا متزلزل ہونے کے بارے میں کیا خیال ہے؟) کس قسم کے یاداشتوں سے ردعمل تیز ہوجاتے ہیں؟ آپ کو اپنی اصلی حالت میں آنے کیلئے کتنا وقت لگتا ہے؟ دائرہ لگائیں جسمانی ردعمل - کم، قدرے موجود، نمایاں، بہت زیادہ، گزشتہ ماہ کتنی -- مرتبہ پیش آیا؟ کتنی مرتبہ---	0- غیر موجود 1- کم 2- درمیانے درجہ 3-شدید نمایاں طور پر مجود 4- حد سے زیادہ /نا قابل یقیین اہم درجہ بندی - کثرت /جسمانی ردعمل/ارتعاش کی شدت درمیانی درجہ- کم از کم مہینے میں دو مرتبہ ردعمل کا واضح طور پر موجود ہونا بحالی میں کچھ دشواری پیش آنا شدید- کم از کم ہفتے میں دو مرتبہ جسمانی ردعمل کا نمایاں طور ہونا، بحالی میں کسی حد تک دشواری پیش آنا۔

میعار سی
حادثاتی واقعات سے منسلک بیرونی محرکات کا سلسلہ روک تھام جو کہ خطرناک واقعہ پیش ہونے کے بعد شروع ہوتے ہیں جس طرح مندرجہ ذیل میں ایک یا دونوں کے ذریعے واضح ہے؟

سوال نمبر-6 (سی-1)
وہ تکلیف دہ یادیں،خیالات، احساسات جو کہ بالکل اس حاداثاتی واقعات سے جڑے ہوں،ان سے گریز کرنا یا گریز کرنے کی کوشس کرنا

گزشتہ ماہ کیا آپ نے واقعہ /سانحہ کے متعلق خیالات یا احساسات سے گریز کرنے کی کوشش کی ہے؟ کس قسم کے خیالات یا احساسات سے آپ گریز کرتے ہیں؟ ان خیالات اور احساسات سے گریز کرنے کے لئے آپ نے کتنی زیادہ کوشش کی؟ (کس قسم کا عمل /یا فعل آپ کرتے ہیں؟)	0- غیر موجود 1--کم 2- درمیانے درجہ 3--شدید نمایاں طور پر مجود 4-- حد سے زیادہ /نا قابل یقیین اہم درجہ بندی - کثرت،اجتناب/گریز کی شدت درمیانی درجہ- کم از کم مہینے میں دو مرتبہ گریز/اجتناب کا قدرے موجود ہونا

(اگر واضح نہیں) مجموعی طور پر آپ کے لئے کتنا مسئلہ ہے؟ چیزیں کس طرح محتلف ہوگی اگر آپ ان احساسات اور خیالات کو ترک نہیں کرتے؟ دائرہ لگائیں- گریز کرنا # - کم، قدرے موجود، نمایاں، بہت زیادہ، گزشتہ ماہ کتنی بار پیش آیا ؟ کتنی مرتبہ	شدید- کم از کم ہفتے میں دو مرتبہ گریز/اجتناب نمایاں طور پر موجود ہونا

سوال نمبر 7 (سی-2)

بیرونی عوامل /یادہانی (لوگ،جگہیں،گفتگو، سرگرمیاں،چیزیں،حالات) جو حادثاتی واقعات سے منسلک تکلیف دہ یادوں یا احساسات،سوچوں کو ابھارتی ہوں سے گریز یا گریز کرنے کی کوشش کرنا۔

گزشتہ ماہ کیا آپ نے ان چیزوں سے گریز کرنے کی کوشش کی جو آپ کوواقعہ یا سانحہ کی یاد دلائی ہو جیسا کہ محسوس لوگ ،مقامات،حالات؟ کس قسم کی چیزوں سے آپ گریز کرتے ہیں؟ ان یادہانیوں سے گریز کرنے کے لئے آپ نے کتنی کوشش کی ہے؟(کیا آپ نے کوئی منصوبہ بنایا ہے یا ان سے گریز کرنے کے لئے اپنی سرگرمیاں تبدیل کیں؟ (اگر واضح نہیں) (مجموعی طور پر یہ آپ کے لئے کتنا مسئلہ ہے۔ چیزیں کس طرح محتلف ہونگی اگر آپ ان یاددہانیوں سے گریز نہیں کرتے؟) دائرہ لگائیں- گریز کرنا # - کم، قدرے موجود، نمایاں، بہت زیادہ، گزشتہ ماہ کتنی بار پیش آیا ؟ کتنی مرتبہ	0-غیرموجود 1- کم 2--درمیانے درجہ 3--شدید نمایاں طور پر مجود 4-- حد سے زیادہ /نا قابل یقیین اہم درجہ بندی -- کثرت،اجتناب/گریز کی شدت درمیانی درجہ- کم از کم مہینے میں دو مرتبہ گریز/اجتناب کا قدرے موجود ہونا شدید- کم از کم ہفتے میں دو مرتبہ گریز/اجتناب نمایاں طور پر موجود ہونا

CRITERION -D میعار- ڈی

مزاج،ادراک یا سوچ میں منفی تبدیلی کا ہونا، جوکہ حادثاتی واقعات سے منسلک ہے حادثاتی واقعات کے رونما ہونے کے شروع یا بعد میں زیادہ خراب ہونا جیسا کہ نیچے دو یا زیادہ اقسام کی شواہد سے ظاہر ہے

سوال نمبر 8-(ڈی-1)

حادثاتی واقعات کے اہم پہلوؤں کو یاد کرنے کے قابل نہ ہونا مثلاً غیر منسلک DISSOCATIVE AMNESIA نسیان
کی وجہ سے ہو اور دوسرے عوامل جیسے سر کی چوٹ،شراب/نشہ آور ادویات کی وجہ سے نہ ہو)

گزشہ ماہ کیا واقعات کے اہم پہلو کو یاد کرنے میں دقت آئی کیا آپ محسوس کرتے ہیں کہ واقعہ کے متعلقآپ کے حافظہ مینبے ربطگی ہے؟) کس حصے کو یاداشت میں لانے کیلئے آپ کو شواری پیش آتی ہے؟ کیا آپ محسوس کرتے ہیں کہ آپ ان چیزوں کو یاد کرنے کے قابل ہو جانگے؟ (اگر واضح نہیں) آپ کیوں سوچتے ہیں کہ آپ نہیں کر سکتے ؟ (کیا واقعہ کے دوران آپ کے سر کو چوٹ لگی، کیا آپ بے ہوش ہو چکے تھے، آپکو الکحل یا ادویات کے ذریعے بے ہوش کیا گیاتھا) (سر کی چوٹ،بے ہوشی یا ادویات سے مدہوشی کی صورت میں درجہ بندی 0- غیر موجود) (اگر یہ بھی واضح نہیں) (تو کیا یہ معمول کی بھول ہے یا آپ کی سوچتے ہیں آپ کو یہ روکنا ہو گا کیونکہ اس کا یاد کرنا آپ کیلئے زیادہ تکلیف دہ ہوگا؟)(معمول کی بھول کی صورت میں درجہ بندی (0- غیر موجود)	0-غیرموجود 1- کم 2- درمیانے درجہ 3- شدید نمایاں طور پر مجود 4- حد سے زیادہ /نا قابل یقیین اہم درجہ بندی-واقعہ کی تفصیلات کی یاد آوری نہ کرنا/ دوبارہ یاد آنےنکی نااہلیت کی شدد درمیانی درجہ- کم از کم ایک اہم پہلو/یاد کرنے میں دشواری کا واضح طور پر ہونا، کاشش سےکچھ یاد آوری ممکن ہونا شدید- کئی اہم پہلو کو یاد کرنے میں واضح دشواری، کوشش سے کم یاد آنا
دائرہ لگائیں- یاد کرنے میں دشواری، - کم، قدرے موجود، نمایاں، بہت زیادہ کزشہ ماہ واقعات/سانحہ کے کتنے اہم حصے /پہلوؤں کو یاد کرنے میں آپ کو دشواری پیش آئی؟ (کون سے حصے ابھی بھی آپ کو یاد ہے؟ اہم پہلو---------- اگر آپ کوشش کرے تو کیا آپ ان چیزوں کو دوبارہ یاد کرنے کے قابل ہونگے؟	

سوال نمبر 9 (ڈی-2)

ثابت قدم اور حد سے زیادہ اپنے بارے میں یا دوسروں کے بارے میں یا دنیا کے بارے میں منفی عقائد یا امید رکھنا مثلاً (میں بُرا ہوں، کسی پر بھی اعتماد نہیں کیا جا سکتا، دنیا مکمکل طور پر حطرناک ہے میرا پورا اعصابی نظام مکمل طور تباہ ہو چکا ہے)

گزشتہ ماہ آپ کے اپنے بارے میں دوسرے لوگوں یا دنیا کے بارے میں مضبوط منفی عقائد تھے؟ کیا آپ مجھے کچھ مثالیں دے سکتے ہیں؟(چیزوں کے بارے میں آپ کا کیا عقیدہ ہے" جیسا کہ میں بُرا ہوں"میرے ساتھ کچھ بہت بُرا ہوا ہے کسی پر بھروسہ نہیں کیا جا سکتا دنیا مکمل طور پرحطرناک ہے؟) یہ عقائد کتنے مضبوط ہیں؟(آپ کس حد تک قائل ہیں کہ یہ عقائد حقیقتًا سچے ہیں؟ کیا آپ اس کے بارے میں دوسرے طریقے سے سوچ سکتے ہیں؟) دائرہ لگائیں- منفی عقائد، - کم، قدرے موجود، نمایاں، بہت زیادہ گزشتہ ماہ آپ نے کتنی مرتبہ اسطرح محسوس کیا وقت کے تناسب کے لحاظ سے--------- کیا یہ عقائد واقعہ کے بعد شروع ہوئے یا بد تر ہوئے ہیں؟ کیا آپ سمجھتے ہیں کہ یہ واقعہ سے متعلق ہے کیسے؟ دائرہ لگائیں- حادثے سے متعلق- واضح/ ممکنہ طور پر، غالبًا ، ناممکن	0-غیرموجود 1- کم 2- درمیانے درجہ 3- شدید نمایاں طور پر مجود 4- حد سے زیادہ /نا قابل یقیین اہم درجہ بندی-کثرت/ عقائدکی شدد درمیانی درجہ- بعض اوقات (20—30 فیصد) حد سے زیادہ منفی توقعات کا واضح طور پر موجود ہونا۔ حقیقت پسندانہ عقائد میں دشواری کا ہونا۔ شدید- زیادہ تر (50—60 فیصد) حد سے زیادہ منفی توقعات کا نمایاں طور پر موجود ہونا۔ مزید حقیقت پسندانہ عقائد میں دشواری کا ہونا

سوال نمبر 10 (ڈی-3)
حادثاتی واقعات کی وجہ یا نتائج کے متعلق تواتر سے ناقص/ مسخ شدہ ادراک/خیالات کی موجودگی جسمیں دوسروں کو الزام دینا یا خود کو الزام دینا/ ٹھہرانا۔

گزشتہ ماہ کیا آپ نے خود کو واقعہ کا ذمہ دار ٹھہرایا یا اس کے نتیجے میں کیا کچھ وقوع پزیر ہوا؟	0-غیرموجود 1- کم 2- درمیانے درجہ 3- شدید نمایاں طور پر مجود

مجھے اس کے متعلق مزید بتائیں (آپ کس طرح خود کو اس کا ذمہ دار ٹھہراتے ہیں،کیا یہ اس لئے ہوا کیونکہ آپ نے کچھ ایس کردیا تھا؟ یا اس لئے آپ سوچتے ہیں کہ آپ کو کچھ کرنا چاہئے تھا جو کہ آپ نے نہیں کیا یا اس لئے کہ یہ واقعہ آپ کے لئے ایک عمومی واقعہ ہے؟) کسی اور کو حادثے کا الزام دینے کے بارے میں کیا رائے ہے یا اس کے نتیجے میں کیا ہوا مجھے اس کے متعلق مزید بتائیں (کسطرح آپ دوسروں کو واقعہ کاذمہ دار ٹھہراتے ہیں؟ کیا اس لئے انہوں نے کچھ کیا یا آپ سوچتے ہیں جو کچھ ان کو کرنا چاہئے تھا نہیں کیا؟) آپ کتنا قصوروار ٹھہراتے ہوں اپنے آپ کو یا دوسروں کو؟ آپ کتنے قائل ہیں کہ آپ یا دوسرے جو کچھ ہواحقیقتًاذمہ دار ہیں؟ (کیا آپ کے سا تھ دوسرے لوگ راضی ہیں؟ کیا آپ اس کے بارے میں دوسرے طریقے سے سوچ سکتے ہیں(درجہ بندی -0 غیرموجودگی مثلًا کسی نے نقصان پہنچانے کی عرض سے جان بوجھ کر حادثہ کیا ہے) --- دئرہ لگائیں- ارتکاب جرم کم، قدرے موجود، نمایاں، بہتزیادہ گزشتہ ماہ آپ نے کتنی مرتبہ اس طرح محسوس کیا؟ وقت کے تناسب کے لحاظ سے----------	4- حد سے زیادہ /نا قابل یقیین --- اہم درجہ بندی-کثرت/الزام/قصور، کی شدد درمیانی درجہ- بعض اوقات (20—30 فیصد) مسخ شدہ الزام کا واضح طور پر موجود ہونا۔ حقیقت پسندانہ عقائد میں دشواری کا ہونا۔ شدید- زیادہ تر (50—60 فیصد) مسخ شدہ الزام کا نمایاں طور پر موجود ہونا۔ مزید حقیقت پسندانہ عقائد میں دشواری کا ہونا

سوال نمبر 11 (ڈی-4)
مسلسل منفی ہیجانی حالت (مثلًاخوف،دہشت، غصہ، احساس جُرم یا شرم)

گزشتہ ماہ کیا آپ کے کوئی مضبوط منفی احساسات تھے جیسا کہ ڈر، دہشت،غصہ، احساس جُرم، یا شرم؟ کیا آپ مجھے کچھ مثالیں دے سکتے ہیں (آپ کو کس قسم کے منفی احساسات کا تجربہ ہواہے؟) آپ ان کو کتنے اچھے طریقے سے سنبھالنے /بُھگتانے کے اہل ہیں؟ یہ منفی احساسات کتنے مضبوط تھے؟	0-غیرموجود 1- کم 2- درمیانے درجہ 3- شدید نمایاں طور پر مجود 4- حد سے زیادہ /نا قابل یقیین --- اہم درجہ بندی-کثرت/الزام/قصور، کی شدد

(اگر واضح نہیں) (مجموعی طور پر یہ آپ کے لئے کتنا مسئلہ ہے؟ اور کیسے؟) --- دئرہ لگائیں- منفی جزبات کم، قدرے موجود، نمایاں، بہتزیادہ گزشتہ ماہ آپ نے کتنے وقت کے لئے اسی طرز پر محسوس کیا ؟ وقت ک تناسب کے لحاظ سے------ کیا یہ منفی احساسات واقعہ کے بعد شروع ہوئیں یا اس کے بعد بد تر ہوئیں؟(کیا آپ سمجھتے ہیں یہ منفی احساسات اس حطرناک واقعہ سے وابسطہ ہے؟تو کیسے؟ دائرہ لگائیں- حادثے سے متعلق- واضح/ ممکنہ طور پر، غالبًا ، ناممکن	درمیانی درجہ- بعض اوقات (20—30 فیصد) منفی ہیجان کا واضح طور پر موجود ہونا۔ کنٹرول/ انتظام کرنے میں کچھ دشواری کا ہونا۔ شدید- زیادہ تر (50—60 فیصد) منفی ہیجان کا نمایاں طور پر موجود ہونا۔ کنٹرول/انتظام کرنے میں کافی حد تک دشواری کا ہونا

سوال نمبر 12-(ڈی-5)
مفید سرگرمیوں میں دلچسپی یا شمولیت میں نمایاں طور پر کمی رونما ہونا۔

گزشتہ ماہ کیا آپ کی ان سرگرمیوں میں دلچسپی کم رہی جن سے آپ لطف اندوز ہوتے تھے ؟ کس قسم کیچیزس آپ کی دلچسپی ختم ہوئی یا اتنی نہیں کہ جتنا آپ کیا کرتےتھے ؟(کچھ اور ؟) اس طرح کیوں؟ (درجہ بندی 0—غیر موجودگی اگر شمو لیت میں کمی کی وجہ مواقع کا کم ملنا، جسمانی معذوری،یا ارتقائی مناسب تبدیلی) آپ کی عدم دلچسپی کتنی مضبوط/مستحکم ہے؟ (آپ سرگرمیوں سے بدستور لطف اندوز ہونگے ایک دفعہ آپ شروع کردیں؟) --- دئرہ لگائیں- عدمِ دلچسپی- کم، قدرے موجود، نمایاں، بہتزیادہ مجموعی طور پرگزشتہ ماہ آپ کی معمول کی سرگرمیوں میں آپ کی دلچسپی کتنی کم ہوئی ہے؟ تناسب کے لحاظ سے- کس قسم کے چیزوں سے آپ بدستور لطف اندوز ہو رہےہیں؟ کیا یہ عدم دلچسپی واقعہ کے بعد شروع ہوئی یا بدترہوئی ہیں؟ کیا آپ سمجھتے ہیں کہ یہ واقعہ/ حادثے سے متعلق ہے کیسے؟	0-غیرموجود 1- کم 2- درمیانے درجہ 3- شدید نمایاں طور پر مجود 4- حد سے زیادہ /نا قابل یقیین --- اہم درجہ بندی- متاثرہ سرگرمیوں کا تناسب/عدم دلچسپی کی تشدد درمیانی درجہ- بعض اوقات (20—30 فیصد) عدم دلچسپی کا واضح طور پر موجود ہونا۔ کچھ خوشی کی سرگرمیاں کا بدستور ہونا۔ شدید- زیادہ تر (50—60 فیصد) عدم دلچسپی کا نمایاں طور پر کا ہونا، سرگرمیوں میں شرکت کا کم عدمِ دلچسپی ہونا

دائرہ لگائیں- حادثے سے متعلق- واضح/ ممکنہ طور پر، غالبًا ، ناممکن	

سوال 13- (ڈی-6)
دوسروں سے لاتعلقی یا دوری کے احساسات۔

گزشتہ ماہ کیا آپ نے دوسرے لوگوں سے دوری یا لاتعلقی محسوس کی؟ مجھے اس کے متعلق مزید بتائیں۔ دوسرے لوگوں سے دوری یا لاتعلقی پر آپ کے احساسات کتنے مضبوط ہیں؟ (کس کو آپ قریب ترین محسوس کرتے ہیں؟ کتنے لوگوں سے آپ اپنی ذاتی چیزوں کے بارے میں بات کرکے پُر سکون محسوس کرتے ہیں؟) دئرہ لگائیں- کشیدگی یا دوری - کم، قدرے موجود، نمایاں، بہتزیادہ گزشتہ ماہ آپ نے کتنی بار اس طرح محسوس کیا؟ وقت کے تناسب کے لحاظ----------ً کیا دوری یا لاتعلقی کے یہ احساسات واقعہ کے بعد شروع یا بد تر ہوئے؟(کیا آپ یہ سمجھتے ہیں کہ یہ واقعہ کے متعلق ہے؟ تو کیسے؟) دائرہ لگائیں- حادثے سے متعلق- واضح/ ممکنہ طور پر، غالبًا ، ناممکن	0-غیرموجود 1- کم 2- درمیانے درجہ 3- شدید نمایاں طور پر مجود 4- حد سے زیادہ /نا قابل یقیین اہم درجہ بندی- کثرت/لاتعلقی/دوری میں شدد درمیانی درجہ- بعض اوقات (20—30 فیصد) لاتعلقی/دوری کے احساسات کا واضح طور پر موجود ہونا۔ لیکن کچھ ذاتی تعلق کو بد ستور محسوس کرنا۔ شدید- زیادہ تر (50—60 فیصد) لوگوں سے لاتعلقی/دوری کے احساسات کا نمایاں طور پرکا ہونا شاید صرف ایک یا دو لوگوں سے قریب محسوس کرنا

سوال - 14(ڈی-7)
مثبت جزبات کے تجربہ کرنے میں مسلسل نا کامی (مثلًا خوشی کے تجربات،اطمینان بخش یا محبت کے جزبات /احساسات میں معذوری یا ناکامی؟

گزشتہ ماہ آپ کو مثبت احساسات جیسا کہ محبت یا خوشی کے تجربات میں کتنی مشکل پیش آئی تھی۔ مجھے اس کے بارے میں مزید بتائیں (کس قسم کے احساسات کے تجربے میں مشکل پیش آئی ہے؟)	0-غیرموجود 1- کم 2- درمیانے درجہ 3- شدید نمایاں طور پر مجود 4- حد سے زیادہ /نا قابل یقیین

آپ کو مثبت احساسات کے تجربے میں کتنی مشکل پیش آئی ہے؟(آپ اب بھی کسی مثبت احساسات کے تجربے کے قابل ہے؟) دائرہ لگائیں- مثبت ہیجان کی کمی - کم، قدرے موجود، نمایاں، بہتزیادہ گزشتہ ماہ آپ نے کتنی بار اس طرح محسوس کیا؟ وقت کے تناسب کے لحاظ فیصد---------- کیامثبت احساسات کا یہ تجربہ واقعہ کے وقت سے شروع ہوتا ہے یا واقعہ کے بعد بدتر ہو جاتاہے(کیا آپ سوچتے ہیں کہ یہ واقعہ سے متعلق ہے؟)تو کیسے؟) دائرہ لگائیں- حادثے سے متعلق- واضح/ ممکنہ طور پر، غالبًا ، ناممکن	اہم درجہ بندی- مثبت ہیجان کی کمی میں کثرت/شدد درمیانی درجہ- بعض اوقات (20—30 فیصد) مثبت ہیجان کی کمی کے احساسات کا واضح طور پر موجود ہونا۔ لیکن پھر بھی کچھ مثبت ہیجان کو محسوسکرنے کے قابل ہونا شدید- زیادہ تر (50—60 فیصد) وقت میں حد سے زیادہ مثبت ہیجان میں نما یاں کمی

میعا ر ای (CRITERION E)

حادثاتی واقعات سے منسلک تحریک /ہیجان اور ردعمل میں واضح/نمایاں تبدیلی کاہونا، جو کہ حادثاتی واقعات کے رونما ہونے کے بعد شروع ہوتے یا بدتر ہوتے ہیں جیسا کہ مندرجہ ذیل میں سے دویا زیادہ سے ظاہر ہے۔

سوال 15 (ای-1)
چڑچڑاپن اور شدید غصہ(کم یا بغیر اشتعال) عام طور پر لوگوں یا چیزوں کی طرف جسمانی عملی یا زبانی غصے کو ظاہر کیا جائے۔

گزشتہ ماہ کوئی ایسا وقت یا اوقات آئے ہیں جب آپ نے خصوصی طور پر چڑچڑاپن یا غصہ محسوس کیا ہوا اور اسے اپنے عمل میں ظاہر کیا ہو۔ کیا آپ مجھے اس کی کچھ مثالیں دے سکتے ہیں؟ (آپ نے اسے کس طرح ظاہر کیا؟) کیا آپ نے اپنی آواز بلند کی اور زور سے چیخ وپکار کی؟ چیزوں کو پھینکا یا ٹکر/ضرب لگائی؟ دوسروں لوگوں کو دھکیلا یا مار پیٹ کی؟ دئرہ لگائیں- غصہ - کم، قدرے موجود، نمایاں، بہتزیادہ گزشتہ ماہ آپ نے کتنی بار اس طرح محسوس کیا؟ وقت کے تناسب کے لحاظ----------	0-غیرموجود 1- کم 2- درمیانے درجہ 3- شدید نمایاں طور پر مجود 4- حد سے زیادہ /نا قابل یقیین اہم درجہ بندی- جارحانہ طرز عمل میں کثرت/شدد درمیانی درجہ- کم از کم مہینے میں دو مرتبہ جارحیت بالخصوص زبانی جارحیت کا واضح طور پر ہونا شدید- کم از کم ہفتے میں دو مرتبہ جا رحیت، کم از کم جسمانی جارحیت کا نما یاں طور پر موجود ہونا۔

کیا یہ کردار/عمل (واقعہ) کے بعد شروع ہوا یا بدتر ہوا۔ آپ کیا سمجھتے ہیں؟ کہ یہ واقعہ کے متعلق ہے؟ تو کیسے؟ دائرہ لگائیں- حادثے سے متعلق- واضح/ ممکنہ طور پر، غالبًا ، ناممکن	

سوال 16 (ای-2)

نا عاقبت اندیشی یا خو بربادی کا کردار/عمل

گزشتہ ماہ کیا ایسا وقت/ اوقات آئے ہیں جب آپ نے خود کو خطرات میں ڈالا ہو جو آپ کے لئے نقصان کا باعث بن گیا ہو؟ کیا آپ کچھ مثالیں دے سکتے ہیں؟ آپ کتنا زیادہ خطرہ لیتے ہیں؟ (یہ کردار/اعمال کتنے خطرناک ہیں؟ کیا آپ کسی طریقے سے زخمی ہوئے یا نقصان پہنچا؟) دائرہ لگائیں- خطرہ - کم، قدرے موجود، نمایاں، بہتزیادہ گزشتہ ماہ آپ کو کتنی مرتبہ اس قسم کے خطرات کا سامنا ہوا ہے وقت ک تناسب ک لحاظ سے--------- کیا یہ کردار/عمل (واقعہ) کے بعد شروع ہوا یا اس کے بعد بدتر ہوا۔ آپ کیا سمجھتے ہیں؟ کیا یہ واقعہ کے متعلق ہے؟ تو کیسے؟ دائرہ لگائیں- حادثے سے متعلق- واضح/ ممکنہ طور پر، غالبًا ، ناممکن	0-غیرموجود 1- کم 2- درمیانے درجہ 3- شدید نمایاں طور پر مجود 4- حد سے زیادہ /نا قابل یقیین اہم درجہ بندی- خطرےکی کثرت/شدد درمیانی درجہ- کم از کم مہینے میں دو مرتبہ خطرے کا واضح طور پر ہونا، نقصان کا باعث بن سکتا ہے شدید- کم از کم ہفتے میں دو مرتبہ خطرے کا نما یاں طور پر موجود ہونا، حقیقت میں نقصان کا بہت زیادہ امکان

سوال 17 (ای-3)

انتہائی چوکسی/ ہوشیار ہونا

گزشتہ ماہ کیا آپ خصوصًا چوکس یا محتاط تھےیہاں تک کہ جب وہاں کوئی خطرہ یا حوف نہں تھا(کیا آپ نے ایسا محسوسکیا جیسا کہ آپ محافظ تھے)۔ کیا آپ مجھے مثالیں دے سکتے ہیں؟(جب آپ چوکس یا بیدار ہوتے ہیں تو آپ کس قسم کے فعل کرتے ہیں)	0-غیرموجود 1- کم 2- درمیانے درجہ 3- شدید نمایاں طور پر مجود 4- حد سے زیادہ /نا قابل یقیین

(اگر واضح نہیں) آپ کے اس طرح کے ردعمل کی کیا وجوہات ہوتی ہیں؟ کیا آپ محسوس کرتےہیں کہ آپ کسی طریقےسے خوف یا خطرے میں ہیں؟ کیا آپ محسوس کرتے ہیں کہ زیادہ تر لوگ اسطرح یکساں حالات میں ہونگے؟) --- دئرہ لگائیں- انتہائی چوکس - کم، قدرے موجود، نمایاں، بہتزیادہ گزشتہ ماہ آپ نے کتنی بار اس طرح محسوس کیا؟ وقت کے تناسب کے لحاظ حاص طور پر بیدار یا چوکس رہنا کیا(وقعہ) کے فورًا بعد شروع ہوتا ہے یا بد تر ہوتا ہے (کیا آپ سوچتے ہیں کہ واقعہ سے متعلق ہے؟ تو کیسے؟ دائرہ لگائیں- حادثے سے متعلق- واضح/ ممکنہ طور پر، غالبًا ، ناممکن	اہم درجہ بندی – انتہائی چوکسی کی کثرت/شدد درمیانی درجہ- بعض اوقات (20—30٪) انتہائی چوکسی کا واضح طور پر ہونا، مثلًا عوام میں مختاط، خطرے سے زیادہ آگاہی کا ہونا شدید- کئی اہم پہلو کو یاد کرنے میں واضح دشواری، کوشش سے کم یاد آنا

سوال 18 (ای-4)
غیر معمولی چونکا دینے والا خواب

گزشتہ ماہ آپ نے کوئی مضبوط چونکا دینے والا ردعمل کیا تھا۔ کس قسم کی چیزوں نے آپ کو چونکا دیا؟ یہ چونکا دینے والے ردعمل کتنے قوی/مضبوط تھے؟ (موازنہ کریں کہ دوسرے بہت سارے لوگوں کے ردعمل کے مقابلے میں کتنے مضبوط ہیں؟ کیا آپ ایسا کچھ کرتے ہیں جن کو دوسرے لوگ دیکھ/نوٹ کرسکتے ہیں؟) آپ کو اپنی بحالی میں کتنا وقت لگتا ہے؟ --- دئرہ لگائیں- چونکا دینا- کم، قدرے موجود، نمایاں، بہت زیادہ گزشتہ ماہ یہ کتنی بار پیش آیا وقت کے تناسب کےلحاظسے---------- ---------- کیا یہ چونکا دینے والے ردعمل (واقعہ) کے بعد شروع ہوتے ہیں یا اس کے بعد بد تر ہوتے ہیں- کیا آپ سمجھتے ہیں؟ کہ یہ واقعہ/حادثےکے متعلق ہے؟ تو کیسے ؟	0-غیرموجود 1- کم 2- درمیانے درجہ 3- شدید نمایاں طور پر مجود 4- حد سے زیادہ /نا قابل یقیین --- اہم درجہ بندی- چونکا دینے کی کثرت/شدد درمیانی درجہ- کم از کم مہینے میں دو مرتبہ چونکا دینے کا عمل کا واضح طور پر ہونا، بحالی میں کچھ دشواری کا ہونا شدید- کم از کم ہفتے میں دو مرتبہ چونکا دینے کا عمل کا نما یاں طور پر موجود ہونا، مسلسل اشتعال،بحالی میں کافی حد تک دشواری کا ہونا

دائرہ لگائیں- حادثے سے متعلق- واضح/ ممکنہ طور پر، غالبًا ، ناممکن	

سوال -19(ای-5)
توجہ مرکوز کرنے میں مشکلات

گزشتہ ماہ کیا آپ کو توجہ مرکوز کرنے میں کوئی مسئلہ پیش آیا ہے؟ کیا آپ مجھے کچھ مثالیں دے سکتے ہیں؟ اگر آپ حقیقی طور پر کوشش کریں تو کیا آپ میں توجہ مرکوز کرنے کی صلاحیت ہے؟ (اگر واضح نہیں) (مجموعی طور آپ کےے لئے کتنا مسئلہ ہے اگر آپ کو توجہ مرکوز کرنے میں مسئلہ نہ ہوتا تو چیزیں کس طرح محتلف ہوں گی؟ دئرہ لگائیں-توجہ مرکوز کرنے میں مشکلات- کم، قدرے موجود، نمایاں، بہت زیادہ گزشتہ ماہ آپ کو کتنی بار توجہ مرکوز کرنے میں مشکلات پیش آئی تھیں وقت کے تناسب کے لحاظ سے فیصد---------- کیا یہ توجہ مرکوز کرنے میں مشکلات (واقعہ) کے بعد شروع ہوتے ہیں یا اس کے بعد بد تر ہوتے ہیں- کیا آپ سمجھتے ہیں؟ کہ یہ واقعہ/حادثےکے متعلق ہے؟ تو کیسے ؟ دائرہ لگائیں- حادثے سے متعلق- واضح/ ممکنہ طور پر، غالبًا ، ناممکن	0-غیرموجود 1- کم 2- درمیانے درجہ 3- شدید نمایاں طور پر مجود 4- حد سے زیادہ /نا قابل یقیین اہم درجہ بندی –دھیان کے مساائل میں کثرت/شدد درمیانی درجہ- بعض اوقات (20—30٪) دھیان کرنے کا مسئلہ واضح طور پر ہونا، کچھ دشواری، لیکن کوشش سے دھیان ہوسکتا ہے شدید- زیادہ تر وقت (50—60٪) دھیان کرنے کا مسئلہ نمایاں طور پر موجود ہونا۔ کوشش کے باوجود،کافی حد تک دشواری

سوال 20(ای-6)
نیند میں خلل (مثلًا نیند انے میں مشکل یا نیند کے تسلسل میں مسئلہ یا مضطرب نیند

کیا گزشتہ ماہ آپ نیند آنے میں یا گہری نیند میں کچھ مشکلات آئیں؟ کس قسم کی مشکلات تھیں-(سونے میں آپ کو کتنا وقت لگتا ہے؟ رات کو آپ کتنی مرتبہ جاگتے ہیں؟ کیا آپ اپنی خواہش کے بغیر جاگتے ہیں؟	0-غیر موجود 1- کم 2- درمیانے درجہ 3- شدید نمایاں طور پر مجود 4- حد سے زیادہ /نا قابل یقیین اہم درجہ بندی –نیند کے مساائل میں کثرت/شدد

آپ رات کو کُل کتنے گھنٹے سوتے ہیں؟ آپ کے خیال میں آپ کو کتنے گھنٹے سونا چاہئے؟ --- دئرہ لگائیں-نیند میں خلل/دشواری- کم، قدرے موجود، نمایاں، بہت زیادہ گزشتہ ماہ آپ کو کتنی بار نیند میں دشواری پیش آئی وقت کے تناسب کے لحاظ سے فیصد---------- کیا یہ نیند خلل/دشواری (واقعہ) کے بعد شروع ہوتے ہیں یا اس کے بعد بد تر ہوتے ہیں- کیا آپ سمجھتے ہیں؟ کہ یہ واقعہ/حادثےکے متعلق ہے؟ تو کیسے ؟ --- دائرہ لگائیں- حادثے سے متعلق- واضح/ ممکنہ طور پر، غالبًا ، ناممکن	درمیانی درجہ- کم ازکم مہینے میں دو مرتبہ نیند خلل کا واضح طور ہونا،دیر تک جاگنا ،سونے میں دشواری،30—90 منٹ نیند کا غائب ہونا۔ شدید- - کم ازکم ہفتے میں دو مرتبہ نیند خلل کا نمایاں طورپر ہونا،دیر تک جاگنا ،سونے میں دشواری،30—90 گھنٹے نیند کا غائب ہونا

(میعار – ایف) (CRITERION –F)

پریشانی/خلل کا دورانیہ (B,C,D,E) معیار ایک ماہ سے زیادہ

سوال 21

علامات کی ابتداء

(اگر واضح نہیں) آپ نے پہلے پہل PTSDکی علامت کب محسوس کرنا شروع کیں جس کے متعلق آپ نے مجھے بتایا ہے (حادثے کے کتنے عرصے بعد یہ شروع ہو گئیں؟ چھ ماہ سے زیادہ وقت لگا؟	کل کتنے ماہ علامات کے ابتداء میں تاخیر رہی تاخیری سے علامات کا آغاز (6 ماہ > سے زیادہ ہا ں----------نہیں

سوال 22

علامات کا میعاد

(اگر واضح نہیں) مجموعی طور پر یہ PTSDکی علامات کتنے عرصے تک موجود رہی ہے	کل ماہ کا دورانیہ------- دورانیہ ایک ماہ سے زیادہ ہاں----نہیں

میعار- جی CRITERION –G

پریشانی/خلل نمایاں طبی تکلیف ومعاشرتی بگاڑ،پیشہ وارانہ یا روزمرہ کے اہم پہلوؤں کی کارکردگی کو متاثر کرتی ہے

سوال 23

اندرونی طور پر محسوس ہونے والی ذاتی تکلیف۔

مجموعی طور پر گزشتہ ماہ میں ان کیPTSD علامات نے آپ کو کس حد تک پریشان کیا جو آپ نے مجھے بتائی ہیں؟ (ابتدائی بیان شدہ شق میں تکلیف پر غور کریں	0—بالکل 1—کم تکلیف 2—درمیانے درجہ تک/تکلیف واضح طور پر موجود لیکن قابلِ برداشت 3—شدید کافی حد تک تکلیف 4—حد سے زیادہ/ناقابل برداشت تکلیف

سوال 24
معاشرتی کم کاج میں خرابی

گزشتہ ماہ،کیا کی علامات سے دوسرے لوگوں کیساتھ آپ کے تعلقات متاثر ہوئے ہیں؟(معاشرتی خرابی جو کہ پہلے شق میں بیان کی گئی ہے کو تصور کی جاتی ہے)	0—مضر اثر کی غیر موجودگی 1—کم اثر معاشرتی کام کاج میں بہت کم خرابی 2—درمیانہ اثر محصوص خرابی لیکن معاشرتی کام کاج کے بہت سارے پہلو تا حال جوں کے توں 3—شدیداثر،واضح خرابی لیکن معاشرتی کام کاج کے کچھ پہلو جوں کے توں 4 حد سے زیادہ اثر معاشرتی کام کاج کم ہونایا بالکل نہ ہونا

سوال 25
پیشہ وارانہ یا دوسرے اہم کام کاج میں خرابی

(اگر واضح نہیں) کیا آپ ابھی کام کررہے ہیں؟ (اگر ہاں) گزشتہ ماہ ان PTSD کی علامات نے آپ کے کام کو یا آپ کے کام کرنے کی صلاحیت کو متاثر کیا؟ کیسے (اگر نہیں) یہ کیوں ہے؟ (کیا آپ محسوس کرتے ہیں کہ آپ کا م نہ کرنا PTSDکی علامات سے وابستہ ہے؟ کیسے؟ اگرPTSD علامات کی وجہ سے آپ کام کرنے کے قابل نہیں تو کم از کم درجہ بندی 3- شدید علامات کی وجہ سے نہیں ہے یا اگر درمیانی رابطہ واضح نہیں ہے تو درجہ اگر بے روزگاری PTSDبندی	0—کوئی مضر اثر نہیں 1—کم اثر،پیشہ وارانہ/دوسرے اہم کاموں میں کم از کم خرابی 2—درمیانے درجہ کا اثر، یقینی خرابی لیکن کئی پیشہ وارانہ پہلو/دوسرے اہم افعال کام بدستور موجود ہیں 3—شدید اثر واضح خرابی چند پیشہ وارانہ پہلو/دوسرے اہم افعال کام بدستور موجود ہیں 4-حد سے زیادہ اثر، پیشہ وارانہ پہلو/دوسرے اہم افعال کام کاکم یا نہ ہونا۔

دوسرے اہم حصوں کی کارکردگی کی بنیاد پر کریں علامات نے آپکی زندگی کے کسی دوسرےاہم حصے کو متاثر کیا؟ مناسب کیا ان PTSDطور پر تجویز کریں، مثال کے طور پر جیسا کہ بچوں کی تربیت ،گھریلوں کام کاج،سکول کا کام، راضاکارانہ کام وغیرہ؟کیسے؟	

سوال 26
عالمی درجہ بندی

مجموعی ردعمل کی درستگی کا تخمینہ لگائیں ان افعال کو مدنظر رکھیں جیسا کہ انٹرویوں کی تعمیل،دماغی حالت،توجہ مرکوز کرنے کے مسائل،عناصر کی پہچان، علیحدگیاور مبالغہ آمیزکوششوں کی شہادت یا محدودعلامات	0—بہترین، ناقص ردعمل کے ہونے کا اندیشہ نہ ہونا 1—بہتر افادیت پر بُری اثرانداز ہونے والے عوامل کا ہونا 2—اچھا افادیت میں واضح کمی کے عوامل کا ہونا 3—کمزور، معقول حد تک افادیت میں کمی ہونا 4—ناقص ردعمل،دماغی حالت کا شدید خراب ہونا یا جان بوجھ کر بُرائی کا بہانہ کرنا اچھائی کا بہانہ کرنا

سوال 27
عالمی شدت

علامات کی شدد کا تخمینہ لگانا، ذاتی پریشانی کام کاج میں خرابی مجموعی طور پر PTSD کی درجہ بندی، انٹرویو میں عادات واطوار کا مشاہدہ اور رپورٹ کرنے کا طریقہ سب شامل کریں۔	0—اہم طبی علامات کا نہ ہونا نہ کوئی پریشانی اور کارکردگی میں خرابئ 1—کم، معمولی پریشانی یا کام کاج میں خرابی 2—درمیانے درجے، یقینی پریشانی یا کام کاج میں خرابی لیکن کوشش سے کاکردگی تسلی بحش 3—بہت زیادہ،قابل ذکر پریشانی یا کام کاج میں خرابی، کوشش کے باوجود محدود کاکردگی

	4—حد سے زیادہ واضح پریشانی دو یا دو سے زیادہ اہم حصوں کی کاکردگی میں واضح خرابی

سوال 28
بین الاقوامی بہتری

پچھلی درجہ بندی کی بنیاد پر کُل، مجموعی طور پر بہتری کی شرح کو نکالیں، علامات کی شدت میں تبدیلی،آپ کے خیال میں علامات میں بہتری علاج و معالجہ کی وجہ سے ہے یا نہیں	0—علامات کی غیر موجودگی 1—قابل ذکر بہتری 2—درمیانے درجہ کی بہتری 3—کم بہتری 4—کوئی بہتری نہیں 5—نا کافی معلومات

علامات: فرد کی علامات PTSD کی بیماری کے معیار پر پوری اترتی ہیں۔ مزید یہ کہ ذہنی دباؤ کا ردعمل وضاحت سے بیان کریں آیا کہ DISSOCIATIVE
کے نتیجے میں فرد، درجہ ذیل علامات کے مسلسل یا متواتر شکار ہوتا ہیں۔

سوال 29
) مسلسل یا متواتر طور پر خود کو علیحدہ محسوس کرنا، جیسا کہ اگر ایک فرد خود کو بیرونی طور پر دیکھ ڈیپرسنلائیزیشن (DEPERSONALIZATION
رہا ہو، اپنی ذہنی یا جسمانی کاکردگی مثال کے طور پر ایسا محسوس کرنا گویا کہ ایک فرد خواب کی حالت میں ہے اپنی ذات اور جسم کے وجود کا حقیقت میں نہ ہونے کے احساس کو محسوس کرنا یا وقت کا بہت آہستہ گزرنا)

گزشتہ ماہ کیا ایسا وقت آیا جب آپ نے اپنے آپ کو الگ تھلگ محسوس کیا ہو جیسا کہ آپ باہر سے خود کا مشاہدہ کر رہے ہوں یا آپ نے اپنی سوچوں یا احساسات کا اس طرح مشاہدہ کیا ہو جیسا کہ دوسرا کوئی اور شخص تھے؟ (اگر نہیں) ایسا محسوس ہوتا تھا جیسا کہ اگر آپ خواب کی حالت میں ہونے کے باوجود خود کو بیدار محسوس کرتے تھے، محسوس کرنا جیسا کہ آپ کے بارے میں کچھ چیزیں حقیقت پر مبنی نہیں ہیں؟ محسوس کرنا جیسا کہ وقت مزید آہستہ سے گزر رہا تھا؟) مجھے اس کے بارے میں مزید بتائیں۔ یہ احساسات کتنے مضبوط ہیں؟(کیا آپ ہوش وحواس کھو بیٹھتے ہیں، کہ آپ حقیقت میں کہاں ہیں یا آپ کے اردگرد کیا کچھ ہو رہا ہے؟) جب	0-غیرموجود 1- کم 2- درمیانے درجہ 3- شدید نمایاں طور پر مجود 4- حد سے زیادہ /نا قابل یقیین اہم درجہ بندی- علیحدگی کی کثرت/شدد درمیانی درجہ- کم از کم مہینے میں دو مرتبہ علیحدگی کی حصوصیت کا واضح لیکن عارضی طور پر ہونا، اپنے ذات اور ماحول سے اگاہی کے بارے میں احساس ہونا شدید- کم از کم ہفتے میں دو مرتبہ علیحدگی کی حصوصیت کا نما یاں طور پر موجود ہونا/

ایسا ہوتا ہے تو آپ کیا کرتے ہیں؟ کیا دوسرے لوگ آپ کی حالت نوٹ کرتے ہیں؟ وہ اس حوالے سے کیا کہتے ہیں؟ یہ کتنی دیر کیلئے ہوتا ہے؟ --- دائرہ لگائیں- علیحدگی: کم، قدرے موجود، نمایاں، بہت زیادہ (اگر واضح نہیں) کیا منشیات یا شراب کی وجہ سے ہیں؟ طبی حالت جیسا کہ مرگی کی صورت میں (درجہ بندی—0 ،غیر موجود اگر یہ منشیات یا دوسرے طبی حالت کی وجہ سے ہے) گزشتہ ماہ آپ کو کتنی بار پیش آیا؟ وقت کے تناسب کے لحاظ سے فیصد --- کیا یہ (واقعہ) کے بعد شروع ہوتے ہیں یا اس کے بعد بدتر ہوتے ہیں۔ کیا آپ سمجھتے ہیں؟ کہ یہ واقعہ/حادثے کے متعلق ہے؟ تو کیسے؟ دائرہ لگائیں- حادثے سے متعلق- واضح/ ممکنہ طور پر، غالبًا ، ناممکن	لاتعلقی اور غیر حقیقی احساس کا واضح طور پر موجود ہونا۔

سوال -30
خیالی احساس
اردگرد کے غیر حقیقی کا مسلسل یا بار بار ہونا(مثلًا فرد اہنر ارد گرد کے حالات کو غیر یقینی خواب جیسا کہ فاصلہ یا بگاڑ جیسا محسوس کرتا ہے۔

گزشتہ ماہ کیا ایسے اوقات آئے ہیں۔ جب آپ کے اردگرد کی چیزیں غیر یقینی، عجیب یا انجان/ غیر اہم دیکھائی دے رہی تھیں؟ (اگر نہیں) کیا آپ کے اردگرد کے چیزیں خواب یا فلم کے کسی منظر جیسی دِکھائی دے رہی تھیں؟ کیا چیزیں آپ کو دور یا خراب دِکھائی دیتی تھی؟ مجھے اس کے بارے میں مزید بتائیں۔	0—غیر موجود 1- کم 2- درمیانے درجہ 3- شدید نمایاں طور پر مجود 4- حد سے زیادہ /نا قابل یقین --- اہم درجہ بندی- علیحدگی کی کثرت/شدد درمیانی درجہ- کم از کم مہینے میں دو مرتبہ علیحدگی کی حصوصیت کا واضح لیکن عارضی طور پر ہونا، اپنے ذات اور ماحول سے اگاہی کے بارے میں احساس ہونا

یہ احساسات کتنے مضبوط ہیں؟(کیا آپ ہوش وحواس کھو بیٹھتے ہیں، کہ آپ حقیقت میں کہاں ہیں یا آپ کے اردگرد کیا کچھ ہو رہا ہے؟ جب ایسا ہوتا ہے تو آپ کیا کرتے ہیں؟ کیا دوسرے لوگ آپ کی حالت کو نوٹ کرتے ہیں؟ وہ اس حوالے سے کیا کہتے ہیں؟ یہ کتنی دیر کے لئے ہوتا ہے؟	شدید- کم از کم ہفتے میں دو مرتبہ علیحدگی کی حصوصیت کا نما یاں طور پر موجود ہونا/ لاتعلقی اور غیر حقیقی احساس کا واضح طور پر موجود ہونا

Appendix "F"

Schema Mode Inventory (URDU)

نام ---------- تاریخ پیدائش -------- عمر-------- تعلیمی حیثیت ------تاریخ-------

ہدایات: درج ذیل بیانات کی مدد سے لوگ اپنے بارے میں رائے قائم کر سکتے ہیں ۔ مندرجہ ذیل پیمانہ کے مطابق ہر بیان کے سامنے نمبرلگا کر بتائیں کہ یہ کیفیت کتنی کثرت سے آپ محسوس کر تے/ کرتی ہیں۔

،کبھی کبھی-3، عمومًا-4 ، اکثر اوقات-5، ہمیشہ-6کبھی نہیں-1 ، بہت کم-2

1	میں چاہتا/چاہتی ہوں کہ دوسرے لوگ مجھ پر مسلط ہونے کی بجائے میری عزت کریں	کبھی نہیں	بہت کم	کبھی کبھی	عموماً	اکثراوقات	ہمیشہ
2	میں محسوس کرتی /کرتا ہوں کہ لوگ مجھ سے پیار کرتے ہیں۔	1	2	3	4	5	6
3	میں خوشیوں سے خود ہی انخراف کرتی/کرتا ہوں کیونکہ میں اس کے قابل نہں۔						
4	میں اپنے اپ کو بنیادی طور پر نااہل سمجھتا /سمجھتی ہوں۔						
5	اپنے آاپ کو سزا دینے کیلئے میں بے سوچے سمجھے خود کو زخمی کرنے پر مائل ہوتی/ہوتا ہوں۔						
6	میین اپنے آپ کو بے حس محسوس کرتی/کرتا ہوں۔						
7	اپنے باررے میں میرا رویہ سخت ہوتا ہے--						
8	کسی تصادم یا جھگڑے سے بچنے کےلئے میں ہر ممکن کوشش کرتی/کرتا ہوں کہ دوسروں کو خوش رکھوں۔						
9	میں خود معاف نہیں کرسکتی/سکتا ہوں۔						

10	میں ایسا کام کرتی/کرتا ہوں جن سے میں توجہ کا مرکز بن جاؤں۔						
11	جب لوگ میری بات پر عمل نہیں کرتے تو مجھے غصہ آجاتاہے۔						
12	اپنے جزبات کو قابو میں رکھنا میرے لئے مشکل ہوتا ہے۔						
13	اگر میں اپنا مقصد حاصل نہ کرسکوں تو دل برداشتہ ہو کراس کام سے دستبردار ہو جاتی/ہوجاتا ہوں۔						
14	میں غصے سے آگ بگولہ ہو جاتی/ہوجاتا ہوں۔						
15	جلد بازی میں شدت جزبات کا بے جا اظہار مجھے مصیبت میں ڈال دیتا ہے یا دوسروں کو تکلیف پہنچاتاہے۔						
16	جب کوئی کام بگڑ جاتاہے تو اس میری غلطی ہوتی ہے۔						
17	میں خود مطمئن اور پُر سکون محسوس کرتی/کرتا ہوں۔						
18	میں اپنے آپ کو اپنے ساتھیوں کے مطابق ڈھال لیتی/لیتا ہوں تاکہ وہ مجھے پسند کریں۔						
19	میں اپنے آپ کو دوسروں لوگوں کے ساتھ مربوط(جُڑا ہوا) محسوس کرتی/کرتا ہوں۔						
20	میں پوری کوشش کرتی/کتا ہوں کہ اپنے مسائل کو خود ہی حل کروں۔						
21	میں خود کو روز مرہ کے اموریا اکتا دینے والے کاموں لے لیے نظم و ضبط کا پابند نہیں کرتا/ کرتی ہوں۔						
22	اگر میں مقابلہ نہ کروں تو مجھ سے برا سلوک کیا جائے گا یا مجھے نظر انداز کیا جائے گا۔						

23	میرے لیے اپنے اردگرد کے لوگوں کا خیا ل رکھنا ضروری ہے						
24	دوسرے لوگو ں کو مذاق اڑنے یا رعب جمانے کا موقع دینا آپ کی شکست ہے۔						
25	مجھے جب لوگوں پر غصہ آتا ہے تو میں ان پر حملہ کر دیتی/ دیتا ہوں						
26	جو نہی مجھے غصہ آتا ہے اکثر اس پر قابو نہیں کر پاتی /کر پاتا اور آپے سے باہر ہو جاتی / جاتا ہوں						
27	میرے لیے اہم ہے کہ میں صف اول میں شامل ہوں(جیسے مشہور ترین، کامیاب ترین، دولت مند ترین، طاقتور ترین)						
28	میں اکثر امور میں اپنے آپ کو لا تعلق کرتی /ہوں۔						
29	میں اپنے جذبات پر قابو پا کر مسائل کو عقل و فہم سے حل کر سکتی / سکتا ہوں۔						
30	حالات سے نمٹنے کی منصوبہ بندی کرتا حماقت ہے۔						
31	میں بہترین سے کم پر اکتفا نہیں کروں گی/گا						
32	حملہ کرنا بہترین دفاع ہے۔						
33	میں دوسرے لوگوں کے بارے میں سردمہر، بے حس اور سنگدل ہوں۔						
34	میں اپنے آپ کو الگ تھلگ سمجھتی /سمجھتا ہوں(اپنے آپ سے اپنے جذبات اور دوسرے لوگوں سے میرا کوئی رابطہ نہیں)						
35	میں اپنے جذبات کی اندھا دھند پیروی کرتی/کرتا ہوں						
36	میں خود کو دل برداشتہ محسوس کرتی/کرتا ہوں						
37	میں دوسرے لوگوں کو حق دیتی /دیتا ہوں کہ وہ مجھ سے تنقید کریں یا مجھے نیچا دکھائیں						

38	تعلقات میں دوسرے لوگوں کو غالب آنے کا موقع دیتی /دیتا ہوں						
39	میں اپنے آپ کو دوسرے لوگوں سے لاتعلق محسوس کرتی /کرتا ہوں۔						
40	میرے بے اختیارانہ فعل یا جذبات کا اظہار مجھے مشکل میں ڈال دیتا ہے۔ یا دوسروں کو دکھ پہنچاتا ہے۔						
41	میں کام یا کھیل میں خود کو اس قدر مصروف کرتی/کرتا ہوں کہ مجھے پریشان کن باتوں کا خیال نہ آئے۔						
42	میں غصہ میں ہوں کیونکہ لوگ میری آزادی اور خودمختاری چھیننے کی کوشش کر رہے ہیں۔						
43	میں کچھ بھی محسوس نہیں کرتا /کرتی ہوں۔						
44	دوسرے لوگوں کی ضرورت اور احساسات کی پروہ کئے بغیر میں وہی کرتی / کرتا ہوں جو میری دل چاہتا ہے۔						
45	میں اس وقت تک آرام اور چین سے نہیں بیٹھتی / بیٹھتا جب تک وہ تمام کام نہ کر لوں جو مجھے کرنے ہیں۔						
46	میں غصہ میں چیزیں اٹھا کر پھینکتی /پھینکتا ہوں۔						
47	مجھے دوسروں لوگوں پر غصہ آتا ہے۔						
48	میں محسوس کرتی/ کرتا ہوں کہ میرے دوسرے لوگوں سے گھل مل جاتی/جاتا ہوں۔						
49	میرے اند ر بہت غصہ ہے جسے باہر نکالنے کی ضرورت ہے۔						
50	میں خود کو تنہا محسوس کرتا /کرتی ہوں۔						
51	میں ہر کام بخوبی سر انجام دینے کے لیے بھرپور کوشش کرتا /کرتی ہوں۔						
52	اپنے جذبات سے دور رہنے کے لیے میں کوئی جوش تسکین بہم پہنچانے والا کا م کرنا چاہتی /چاہتا ہوں(مثلاً جوا کھیلنا ، کھانا پینا ، خریداری ، جنسی عمل، ٹی وی دیکھنا)						
53	برابری کا کوئی وجود نہیں اس لیے بہتر یہی ہے کہ آپ دوسروں سے برتر ہوں.						

54	جب مجھے غصہ آتا ہے تو اکثر آپے سے سے باہر ہو جاتا/جاتی ہوں اور دوسرے لوگوں کو دھمکیاں دیتا /دیتی ہوں.						
55	میں دوسروں کو اپنی خواہشات کے بجائے اس کی مرضی کے مطابق چلنے کا موقع دیتا /دیتی ہوں۔						
56	جو کوئی میرا ساتھ نہیں دیاتا وہ میرا مخالف ہے۔						
57	پریشان کن حیالات اور جذبات سے بچنے کے لیے میں اپنے آپ کو ہمیشہ مصروف رکھتی/رکھتا ہوں۔						
58	اگر مجھے دوسرے لوگوں پر غصہ آئے تو (اسکا مطلب یہ ہے) میں ایک بری / برا انسان ہوں.						
59	میں لوگوں میں گھلنا ملنا چاہتا ہوں۔						
60	میں اس قدر شیدید غصے میں تھی/ تھا کہ میں نے کسی کوزخمی کر دیا یا قتل کر دیا۔						
61	میں محسوس کرتی /کرتا ہوں کہ میر زندگی میں بہت استحکام اور اطمینان ہے۔						
62	میں جانتی / جانتا ہوں کہ مجھے کب اپنے جذبات کا اظہار کرنا ہے اور کب نہیں۔						
63	جس شخص نے میرا ساتھ چھوڑ کر مجھے تنہا کر دیا اس سے میں سخت ناراض ہوں.						
64	میں خود کو دوسروں کے ساتھ مربوط (جڑا ہوا) نہیں سمجھتی / سمجھتا.						
65	میں وہ کام کرنے پہ خود کو مجبور کر سکتاجو مجھے ناگوار ہوں، یا نہ پسند ہوں، چاہے مجھے معلوم ہو کہ اس میں میرا فائدہ ہے۔						
66	میں قانون توڑتا ہوں اور بعد میں ندامت محسوس کرتا ہوں۔						
67	مجھے اپنی ذلت کا احساس ہوتا ہے۔						
68	میں اکثر لوگوں پر اعتماد کرتی /کرتا ہوں۔						

69	میں کام کرنے کے بعد اس کے بارے میں سوچتی /سوچتا ہوں۔						
70	میں جلد اکتا جاتا ہوں اور چیزوں میں میری دلچسپی ختم ہو جاتی ہے۔						
71	میں بھیڑ میں بھی خود کو تنہا محسوس کرتا ہوں۔						
72	کیونکہ میں ایک بری /برا انسان ہوں اس لیے اپنے آپ کو ان مسرت بخش کاموں سے محروم رکھتی /رکھتا ہوں جو دوسرے لوگ کرتے ہیں۔						
73	حد سے تجاوز کیے بنا میں وہ کہہ دیتا ہوں/دیتی ہوں جو مجھے چاہیے ہوتا ہے۔						
74	میں اکثر لوگوں کے مقابلہ میں اپنے آپ کو بہتر اور منفرد سمجھتی/ سمجھتا ہوں۔						
75	میں کسی بات کی پرواہ نہیں کرتی/ کرتا اور کسی بات سے مجھے فرق نہیں پڑتا۔						
76	جب کوئی یہ کہے کہ مجھے کیا محسوس کرنا چاہیے اور مجھے غصہ آجاتا ہے۔						
77	اگر آپ دوسروں پر غالب نہیں آئیں گے تو وہ آپ پر غالب آجائے گا۔						
78	میں نتائج کےبارے میں سوچے بغیر جو کچھ محسوس کرتی/کرتا ہوں وہ کہہ دیتی/ دیتا ہوں۔						
79	میں محسوس کرتی /کرتا ہوں کے لوگوں کو اینٹ کا جواب پتھر سے دوں۔						
80	میں اس قابل ہوں کہ خود اپنا خیال رکھ سکوں.						
81	میں دوسرے لوگوں پر اکثر تنقید کرتی /کرتا ہوں						
82	مقاصد کے حصول اور کام کی تکمیل کے لیے مجھ پر مستقل دباؤ ہے						
83	میری کوشش ہے کہ میں غلطی نہ کرو ورنہ میں اپنی نظروں میں خود گر جاؤں گی/ گا۔						
84	میں سزا کی /کا مستحق ہوں۔						
85	مجھ میں سیکھنے ، پڑھنے اور تبدیل ہونے کی صلاحیت ہے۔						
86	میں پریشان کن خیالات اور احساس سے اپنی توجہ ہٹانا چاہتی /چاہتا ہوں۔						

87	مجھے اپنے آپ پہ غصہ ہے۔						
88	میں محسوسات سے عاری ہوں۔						
89	مجھے ہر کام میں بہترین کارگردگی دکھانی چا ہیے۔						
90	اپنا معیار برقرار رکھنے کے لیے میں اپنی خوشی ، صحت اور آرام قربان کر دیتی/ دیتا ہوں۔						
91	میں دوسرے لوگوں سے توقعات رکھتی/رکھتا ہوں۔						
92	اگر مجھے غصہ آئے تو آپے سے باہر ہو کر میں دوسرے لوگوں کو زخمی کر دیتی/ دیتا ہوں۔						
93	مجھے کوئی نقصان نہیں پہنچاتا ۔						
94	میں برا انسان ہوں۔						
95	میں اپنے آپ کو محفوظ سمجھتی /سمجھتا ہوں۔						
96	میں چاہتی /چاہتا ہوں کے لوگ میری بات سنیں، سمجھیں اور اسے درست کریں۔						
97	اپنے جذبات پر قابو رکھنا میرے لیے نا ممکن ہے۔						
98	میں غصے میں چیزوں کو توڑ پھوڑ دیتی ہوں						
99	دوسرے لوگوں پر غلبہ پانے سے آپ کو کوئی نقصان نہیں پہنچتا						
100	اگر حالات میری پسند کے مواقف ہوں تب بھی میں تحمل سے کام لیتی /لیتا ہوں۔						
101	میرا غصہ قابو سے باہر آجاتا ہے۔						
102	میں دوسرے لوگوں کا مذاق اڑاتی/ اڑاتا ہوں۔						
103	میرا جی چاہتا ہے کہ دوسروں نے جو کچھ میرے ساتھ کیا اس کے بدلے میں ان کو ویسی ہی تکلیف پہنچاؤں۔						
104	مجھے معلوم ہے کہ ہر کام کرنے کا ایک صحیح طریقہ ہوتا ہے۔ میں صحیح طریقہ سے کام کرنے کی بھر پور کوشش کرتی/کرتا ہوں ورنہ اپنے آپ پر تنقید شروع کرتا دیتا ہوں۔						

105	میں اکثر خود کو دنیا میں تنہا محسوس کرتا /کرتی ہونَ						
106	میں خود کو کمزور اور بے ہارومدد گار محسوس کرتا/کرتی ہوں۔						
107	میں کاہل ہوں۔						
108	جو لوگ میرے نزدیک اہم ہیں مجھے ان کی ہر بات گوارہ ہے						
109	مجھے دھوکا دیا گیا یا مجھ سے غیر منسفانہ برتاؤ کیا گیا۔						
110	جب میرا دل چاہتا ہے کہ میں کچھ کروں تو میں کر گزرتا/ گزرتی ہوں۔						
111	مجھے یوں محسوس ہوتا ہے جیسے مجھے تنہا کر دیا گیا ہے۔						
112	میں دوسروں کو حقیر سمجھتی / سمجھتا ہوں۔						
113	میں پُر امید ہوں۔						
114	میرا خیا ل ہے مجھے ان اصولوں کی تائید نہیں کرنی چاہیے۔ جن کی تائید دوسرے لوگ کرتے ہینَ						
115	اس وقت میری زندگی کا محور امور کی تکمیل اور انہیں صحیح طریقے سے انجام دینا ہے۔						
116	میں اپنی پوری کوشش کرتا /کرتی ہوں کہ میں اکثر دوسرے لوگوں سے زیادہ زمہ داری کا مظاہرہ کروں۔						
117	جب میں محسوس کروں کہ ہر ناجائز تنقید کی جا رہی ہے۔ یا مجھ سے ناجائز فائدہ اٹھایا جا رہا ہے تو میں اپنا دفاع کر سکتی ہوں۔ کر سکتا ہوں۔						
118	اگر مجھ پر کوئی مصیبت آئے تو میں ہمدردی کی/ کا مستحق نہیں۔						
119	مجھے محسوس ہوتا ہے جیسے مجھ سے کوئی پیار نہیں کرتا۔						
120	میں خود کو بنیادی طور پر ایک اچھا آدمی سمجھتا ہوں۔						
121	اگر ضروری ہو تو میں روزمرہ کے غیر دلچسپ /اکتا دینے والے کام بھی سر انجام دیتی/دیتا ہوں۔						
122	میں طبعا شوخ مزاج ہوں/میری طبیعت میں بے ساختگی اور خوش مزاجی ہے۔						

123	غصے میں آپے سے باہر آ کر کسی کو جان سے مار سکتی /سکتا ہوں۔						
124	مجھے بخوبی اندازہ ہے کہ میں کون ہوں اور مجھے خوش رہنے کے لیے کیا چاہیے۔						

Appendix G

CAPS-5 (Past Month) English

Instruction

Standard administration and scoring of the CAPS-5 are essential for producing reliable and valid scores and diagnostic decisions. The CAPS-5 should be administered only by qualified interviewers who have formal training in structured clinical interviewing and differential diagnosis, a thorough understanding of the conceptual basis of PTSD and its various symptoms, and detailed knowledge of the features and conventions of the CAPS-5 itself.

Administration

1. Identify an index traumatic event to serve as the basis for symptom inquiry. Administer the Life Events Checklist and Criterion A inquiry provided on p. 5, or use some other structured, evidence-based method. The index event may involve either a single incident (e.g., "the accident") or multiple, closely related incidents (e.g., "the worst parts of your combat experiences").
2. Read prompts verbatim, one at a time, and in the order presented, EXCEPT:

a. Use the respondent's own words for labeling the index event or describing specific symptoms.
b. Rephrase standard prompts to acknowledge previously reported information, but return to verbatim phrasing as soon as possible. For example, inquiry for item 20 might begin: "You already mentioned having problem sleeping. What kinds of problems?"
c. If you don't have sufficient information after exhausting all standard prompts, follow up ad lib. In this situation, repeating the initial prompt often helps refocus the respondent.
d. As needed, ask for specific examples or direct the respondent to elaborate even when such prompts are not provided explicitly.

3. In general, DO NOT suggest responses. If a respondent has pronounced difficulty understanding a prompt it may be necessary to offer a brief example to clarify and

illustrate. However, this should be done rarely and only after the respondent has been given ample opportunity to answer spontaneously.

4. DO NOT read rating scale anchors to the respondent. They are intended only for you, the interviewer, because appropriate use requires clinical judgment and a thorough understanding of CAPS-5 scoring conventions.
5. Move through the interview as efficiently as possible to minimize respondent burden. Some useful strategies:

a. Be thoroughly familiar with the CAPS-5 so that prompts flow smoothly.
b. Ask the fewest number of prompts needed to obtain sufficient information to support a valid rating.
c. Minimize note-taking and write while the respondent is talking to avoid long pauses.
d. Take charge of the interview. Be respectful but firm in keeping the respondent on task, transitioning between questions, pressing for examples, or pointing out contradictions.

Scoring

As with previous versions of the CAPS, CAPS-5 symptom severity ratings are based on symptom frequency and intensity, except for items 8 (amnesia) and 12 (diminished interest), which are based on amount and intensity. However, CAPS-5 items are rated with a single severity score, in contrast to previous versions of the CAPS which required separate frequency and intensity scores for each item that were either summed to create a symptom severity score or combined in various scoring rules to create a dichotomous (present/absent) symptom score. Thus, on the CAPS-5 the clinician combines information about frequency and intensity before making a single severity rating. Depending on the item, frequency is rated as either the number of occurrences (how often in the past month) or percent of time (how much of the time in the past month). Intensity is rated on a four-point ordinal scale with ratings of *Minimal, Clearly Present, Pronounced*, and *Extreme*. Intensity and severity are related but distinct. Intensity refers to the strength of a typical occurrence of a symptom. Severity refers to the total symptom load over a given time period, and is a combination of intensity and frequency. This is similar to the quantity/frequency assessment approach to alcohol consumption. In general, intensity rating anchors correspond to severity scale anchors described below and should be interpreted and used in the same way, except that severity ratings require joint consideration of intensity and frequency. Thus, before taking frequency

into account, an intensity rating of *Minimal* corresponds to a severity rating of *Mild / subthreshold*, Clearly Present corresponds with *Moderate / threshold*, pronounced corresponds with *Severe / markedly elevated*, and Extreme corresponds with *Extreme / incapacitating*.

2. The five-point CAPS-5 symptom severity rating scale is used for all symptoms. Rating scale anchors should be interpreted and used as follows:
   0 Absent The respondent denied the problem or the respondent's report doesn't fit the *DSM-5* symptom criterion.
   1 Mild / subthreshold The respondent described a problem that is consistent with the symptom criterion but isn't severe enough to be considered clinically significant. The problem doesn't satisfy the *DSM-5* symptom criterion and thus doesn't count toward a PTSD diagnosis.
   2 Moderate / threshold The respondent described a clinically significant problem. The problem satisfies the *DSM-5* symptom criterion and thus counts toward a PTSD diagnosis. The problem would be a target for intervention. This rating requires a minimum frequency of *2 Xmonth* or *some of the time (20-30%)* PLUS a minimum intensity of *Clearly Present*.
   3 Severe / markedly elevated The respondent described a problem that is well above threshold. The problem is difficult to manage and at times overwhelming, and would be a prominent target for intervention. This rating requires a minimum frequency of *2 Xweek* or *much of the time (50-60%)* PLUS a minimum intensity of *Pronounced*.
   4 Extreme / incapacitating The respondent described a dramatic symptom, far above threshold. The problem is pervasive, unmanageable, and overwhelming, and would be a high-priority target for intervention.
3. In general, make a given severity rating only if the minimum frequency and intensity for that rating are both met. However, you may exercise clinical judgment in making a given severity rating if the reported frequency is somewhat lower than required, but the intensity is higher. For example, you may make a severity rating of *Moderate / threshold* if a symptom occurs 1 X month (instead of the required 2 X month) as long as intensity is rated *Pronounced or Extreme* (instead of the required *Clearly Present*). Similarly, you may make a severity rating of *Severe / markedly elevated* if a symptom

occurs 1 X week (instead of the required 2 X week) as long as the intensity is rated *Extreme* (instead of the required *Pronounced*). If you are unable to decide between two severity ratings, make the lower rating.

4. You need to establish that a symptom not only meets the *DSM-5* criterion phenomenological, but is also functionally related to the index traumatic event, i.e., started or got worse as a result of the event. CAPS-5 items 1-8 and 10 (re-experiencing, effortful avoidance, amnesia, and blame) are inherently linked to the event. Evaluate the remaining items for trauma-relatedness (TR) using the TR inquiry and rating scale. The three TR ratings are:

   a. ***Definite*** = the symptom can clearly be attributed to the index trauma, because (1) there is an obvious change from the pre-trauma level of functioning and/or (2) the respondent makes the attribution to the index trauma with confidence.

   b. ***Probable*** = the symptom is likely related to the index trauma, but an unequivocal connection can't be made. Situations in which this rating would be given include the following: (1) there seems to be a change from the pre-trauma level of functioning, but it isn't as clear and explicit as it would be for a *Definite*; (2) the respondent attributes a causal link between the symptom and the index trauma, but with less confidence than for a rating of *Definite*; (3) there appears to be a functional relationship between the symptom and inherently trauma-linked symptoms such as re-experiencing symptoms (e.g., numbing or withdrawal increases when re-experiencing increases).

   c. ***Unlikely*** = the symptom can be attributed to a cause other than the index trauma because (1) there is an obvious functional link with this other cause and/or (2) the respondent makes a confident attribution to this other cause and denies a link to the index trauma. Because it can be difficult to rule out a functional link between a symptom and the index trauma, a rating of *Unlikely* should be used only when the available evidence strongly points to a cause other than the index trauma. NOTE: <u>Symptoms with a TR rating of *Unlikely* should not be counted toward a PTSD diagnosis or included in the total CAPS-5 symptom severity score.</u>

5. **CAPS-5 total symptom severity score** is calculated by summing severity scores for items 1-20. NOTE: Severity scores for the two dissociation items (29 and 30) should NOT be included in the calculation of the total CAPS-5 severity score.

6. **CAPS-5 symptom cluster severity scores** are calculated by summing the individual item severity scores for symptoms contained in a given *DSM-5* cluster. Thus, the Criterion B (re-experiencing) severity score is the sum of the individual severity scores for items 1-5; the Criterion C (avoidance) severity score is the sum of items 6 and 7; the Criterion D (negative alterations in cognitions and mood) severity score is the sum of items 8-14; and the Criterion E(hyper arousal) severity score is the sum of items 15-20. A symptom cluster score may also be calculated for dissociation by summing items 29 and 30.

6. **PTSD diagnostic status** is determined by first dichotomizing individual symptoms as *Present* or *Absent*, then following the *DSM-5* diagnostic rule. A symptom is considered present only if the corresponding item severity score is rated 2=*Moderate / threshold* or higher. Items 9 and 11-20 have the additional requirement of a trauma-relatedness rating of *Definite* or *Probable*. Otherwise a symptom is considered absent. The *DSM-5* diagnostic rule requires the presence of least one Criterion B symptom, one Criterion C symptom, two Criterion D symptoms, and two Criterion E symptoms. In addition, Criteria F and G must be met. Criterion F requires that the disturbance has lasted at least one month. Criterion G requires that the disturbance cause either clinically significant distress or functional impairment, as indicated by a rating of 2=*Moderate* or higher on items 23-25.

Criterion A

Exposure to actual or threatened death, serious injury, or sexual violence in one (or more) of the following ways:

1. Directly experiencing the traumatic event(s).

2. Witnessing, in person, the event(s) as it occurred to others.

3. Learning that the traumatic event(s) occurred to a close family member or close friend. In cases of actual or threatened death of a family member or friend, the event(s) must have been violent or accidental.

4. Experiencing repeated or extreme exposure to aversive details of the traumatic event(s) (e.g., first responders collecting human remains; police officers repeatedly exposed to details of child abuse). Note: Criterion A4 does not apply to exposure through electronic media, television, movies, or pictures, unless this exposure is work related.

I'm going to ask you about the stressful experiences questionnaire you filled out. First I'll ask you to tell me a little bit about the event you said was the worst for you. Then I'll ask how that event may have affected you over the past month. In general, I don't need a lot of information – just enough so I can understand any problems you may have had. Please let me know if you find yourself becoming upset as we go through the questions so we can slow down and talk about it. Also, let me know if you have any questions or don't understand something. Do you have any questions before we start?

The event you said was the worst was (EVENT). What I'd like for you to do is briefly describe what happened.

Index event (specify)----------

What happened? (*How old were you? How were you involved? Who else was involved? Was anyone seriously injured or killed? Was anyone's life in danger? How many times did this happen?*)	**Exposure type:** ____ Experienced ____ Witnessed ____ Learned about ____ Exposed to aversive details **Life threat?** NO YES (self ___ other ___) **Serious injury?** NO YES (self ___ other ___) **Sexual violence?** NO YES (self ___ other ___)

	Criterion A met? NO PROBABLE YES

For the rest of the interview, I want you to keep (EVENT) in mind as I ask you about different problems it may have caused you. You may have had some of these problems before, but for this interview we're going to focus just on the past month. For each problem I'll ask if you've had it in the past month, and if so, how often and how much it bothered you.

Criterion B:

Presence of one (or more) of the following intrusion symptoms associated with the traumatic event(s), beginning after the traumatic event(s) occurred:

Item 1 (B1): Recurrent, involuntary, and intrusive distressing memories of the traumatic event(s). Note: In children older than 6 years, repetitive play may occur in which themes or aspects of the traumatic event(s) are expressed.

In the past month, have you had any <u>unwanted memories</u> of (EVENT) while you were awake, so not counting dreams? (Rate 0=Absent if only during dreams) **How does it happen that you start remembering (EVENT)?** [If not clear:] (***Are these <u>unwanted</u> memories, or are you thinking about (EVENT) on purpose?***) (Rate 0=Absent unless perceived as involuntary and intrusive) **How much do these memories bother you?** **Are you able to put them out of your mind and think about something else?** [If not clear:] (***Overall, how much of a problem is this for you? How so?***)	0 Absent 1 *Mild / subthreshold* 2 *Moderate / threshold* 3 *Severe / markedly elevated* 4 *Extreme / incapacitating* ***Key rating dimensions = frequency / intensity of distress*** **Moderate** = at least 2 X month / distress clearly present, some difficulty dismissing memories **Severe** = at least 2 X week / pronounced distress, considerable difficulty dismissing memories
<u>Circle:</u> Distress = *Minimal*, *Clearly* Present, Pronounced, Extreme **How often have you had these memories in the past month?** # of times_____ _____	

Item 2 (B2): Recurrent distressing dreams in which the content and/or affect of the dream are related to the event(s). Note: In children, there may be frightening dreams without recognizable content.

In the past month, have you had any <u>unpleasant dreams</u> about (EVENT)? **Describe a typical dream.** (*What happens?*) [If not clear:] (***Do they wake you up?***) [If yes:] (***What do you experience when you wake up? How long does it take you to get back to sleep?***) [If reports not returning to sleep:] (***How much sleep do you lose?***) **How much do these dreams bother you?** <u>Circle:</u> Distress =*Minimal*, *Clearly Present*, *Pronounced*, *Extreme* **How often have you had these dreams in the past month?** # of times _____	0 *Absent* 1 *Mild / subthreshold* 2 *Moderate / threshold* 3 *Severe / markedly elevated* 4 *Extreme / incapacitating* ***Key rating dimensions = frequency / intensity of distress*** **Moderate** = at least 2 X month / distress clearly present, less than 1-hour sleep loss **Severe** = at least 2 X week / pronounced distress, more than 1-hour sleep loss

Item 3 (B3): Dissociative reactions (e.g., flashbacks) in which the individual feels or acts as if the traumatic event(s) were recurring. (Such reactions may occur on a continuum, with the most extreme expression being a complete loss of awareness of present surroundings.) Note: In children, trauma-specific reenactment may occur in play.

In the past month, have there been times when you <u>suddenly acted</u> or <u>felt</u> as if (EVENT) were <u>actually happening</u> again? [If not clear:] (***This is different than thinking about it or dreaming about it – now I'm asking about flashbacks, when you feel like you're actually back at the time of (EVENT), actually reliving it.***) **How much does it seem as if (EVENT) were happening again?** (*Are you confused about where you actually are?*) **What do you do while this is happening?** (*Do other people notice your behavior? What do they say?*) **How long does it last?** <u>Circle:</u> Dissociation = *Minimal*, *Clearly Present, Pronounced, Extreme* **How often has this happened in the past month?** # of times _____	0 *Absent* 1 *Mild / subthreshold* 2 *Moderate / threshold* 3 *Severe / markedly elevated* 4 *Extreme / incapacitating* ***Key rating dimensions = frequency / intensity of dissociation*** **Moderate** = at least 2 X month / dissociative quality clearly present, may retain some awareness of surroundings but relives event in a manner clearly distinct from thoughts and memories **Severe** = at least 2 X week / pronounced dissociative

	quality, reports vivid reliving, e.g., with images, sounds, smells

Item 4 (B4): Intense or prolonged psychological distress at exposure to internal or external cues that symbolize or resemble an aspect of the traumatic event(s).

In the past month, have you gotten <u>emotionally upset</u> when <u>something</u> <u>reminded you</u> of (EVENT)? **What kinds of reminders make you upset?** **How much do these reminders bother you?** **Are you able to calm yourself down when this happens?** (*How long does it take?*) [If not clear:] (***Overall, how much of a problem is this for you? How so?***) <u>Circle:</u> Distress = *Minimal* *Clearly Present, Pronounced* *Extreme* **How often has this happened in the past month?** # of times _____	0 *Absent* 1 *Mild / subthreshold* 2 *Moderate / threshold* 3 *Severe / markedly elevated* 4 *Extreme / incapacitating* ***Key rating dimensions = frequency / intensity of distress*** **Moderate** = at least 2 X month / distress clearly present, some difficulty recovering **Severe** = at least 2 X week / pronounced distress, considerable difficulty recovering

Item 5 (B5): Marked physiological reactions to internal or external cues that symbolize or resemble an aspect of the traumatic event(s).

In the past month, have you had any <u>physical reactions</u> when <u>something</u> <u>reminded you</u> of (EVENT)? **Can you give me some examples?** (*Does your heart race or your breathing change? What about sweating or feeling really tense or shaky?*) **What kinds of reminders trigger these reactions?** **How long does it take you to recover?** <u>Circle:</u> Physiological reactivity =*Minimal, Clearly Present*, *Pronounced*, *Extreme* **How often has this happened in the past month?** # of times _____	0 Absent 1 mild/threshold 2 moderate/threshold 3 severe/markedly elevated 4 *Extreme / incapacitating* ***Key rating dimensions = frequency / intensity of physiological arousal*** **Moderate** = at least 2 X month / reactivity clearly present, some difficulty recovering **Severe** = at least 2 X week / pronounced reactivity, sustained arousal, considerable difficulty recovering

Criterion C:
Persistent avoidance of stimuli associated with the traumatic event(s), beginning after the traumatic event(s) occurred, as evidenced by one or both of the following:

Item 6 (C1): Avoidance of or efforts to avoid distressing memories, thoughts, or feelings about or closely associated with the traumatic event(s).

In the past month, have you tried to <u>avoid thoughts</u> or <u>feelings</u> about (EVENT)? **What kinds of thoughts or feelings do you avoid?** **How hard do you try to avoid these thoughts or feelings?** (*What kinds of things do you do?*) [If not clear:] (***Overall, how much of a problem is this for you? How would things be different if you didn't have to avoid these thoughts or feelings?***) <u>Circle:</u> Avoidance =*Minimal*, *Clearly Present*, *Pronounced, Extreme* **How often in the past month?** # of times _____	0 *Absent* 1 *Mild / subthreshold* 2 *Moderate / threshold* 3 *Severe / markedly elevated* 4 *Extreme / incapacitating* ***Key rating dimensions = frequency / intensity of avoidance*** **Moderate =** at least 2 X month / avoidance clearly present **Severe =** at least 2 X week / pronounced avoidance

Item 7 (C2): Avoidance of or efforts to avoid external reminders (people, places, conversations, activities, objects, situations) that arouse distressing memories, thoughts, or feelings about or closely associated with the traumatic event(s).

In the past month, have you tried to <u>avoid things</u> that <u>remind you</u> of (EVENT), like certain people, places, or situations? **What kinds of things do you avoid?** **How much effort do you make to avoid these reminders?** (*Do you have to make a plan or change your activities to avoid them?*) [If not clear:] **(*Overall, how much of a problem is this for you? How would things be different if you didn't have to avoid these reminders?*)** <u>Circle:</u> Avoidance =*Minimal*, *Clearly Present*, *Pronounced*, *Extreme* **How often in the past month?** # of times _____	0 *Absent* 1 *Mild / subthreshold* 2 *Moderate / threshold* 3 *Severe / markedly elevated* 4 *Extreme / incapacitating* ***Key rating dimensions = frequency / intensity of avoidance*** **Moderate =** at least 2 X month / avoidance clearly present **Severe =** at least 2 X week / pronounced avoidance

Criterion D:

Negative alterations in cognitions and mood associated with the traumatic event(s), beginning or worsening after the traumatic event(s) occurred, as evidenced by two (or more) of the following:

Item 8 (D1): Inability to remember an important aspect of the traumatic event(s) (typically due to dissociative amnesia and not to other factors such as head injury, alcohol, or drugs).

In the past month, have you had <u>difficulty remembering</u> some <u>important</u> <u>parts</u> of (EVENT)? (*Do you feel there are gaps in your memory of (EVENT)?*) **What parts have you had difficulty remembering?** **Do you feel you should be able to remember these things?** [If not clear:] (***Why do you think you can't? Did you have a head injury during (EVENT)? Were you knocked unconscious? Were you intoxicated from alcohol or drugs?***) (Rate 0=Absent if due to head injury or loss of consciousness or intoxication during event) [If still not clear:] **(*Is this just normal forgetting? Or do you think you may have blocked it out because it would be too painful to remember?*)** (Rate 0=Absent if due only to normal forgetting. <u>Circle:</u> Difficulty remembering = *Minimal*, *Clearly Present*, *Pronounced*, *Extreme* **In the past month, how many of the important parts of (EVENT) have you had difficulty remembering?** (*What parts do you still remember?*) # of important aspects _____ **Would you be able to recall these things if you tried?**	0 *Absent* 1 *Mild / subthreshold* 2 *Moderate / threshold* 3 *Severe / markedly elevated* 4 *Extreme / incapacitating* ***Key rating dimensions = amount of event not recalled / intensity of inability to recall*** **Moderate =** at least one important aspect / difficulty remembering clearly present, some recall possible with effort **Severe =** several important aspects / pronounced difficulty remembering, little recall even with effort

Item 9 (D2): Persistent and exaggerated negative beliefs or expectations about oneself, others, or the world (e.g., "I am bad," No one can be trusted," The world is completely dangerous," My whole nervous system is permanently ruined").

In the past month, have you had <u>strong negative beliefs</u> about yourself, other people, or the world? **Can you give me some examples?** (*What about believing things like "I am bad," "there is something seriously wrong with me," "no one can be trusted," "the world is completely dangerous"?*) **How strong are these beliefs?** (*How convinced are you that these beliefs are actually true? Can you see other ways of thinking about it?*) <u>Circle:</u> Conviction = *Minimal Clearly Present Pronounced Extreme* **How much of the time in the past month have you felt that way, as a percentage?** % of time _____ **Did these beliefs start or get worse after (EVENT)?** (*Do you think they're related to (EVENT)? How so?*) <u>Circle:</u> Trauma-relatedness =*Definite*, *Probable*, *Unlikely*	0 *Absent* 1 *Mild / subthreshold* 2 *Moderate / threshold* 3 *Severe / markedly elevated* 4 *Extreme / incapacitating* ***Key rating dimensions = frequency / intensity of beliefs*** **Moderate =** some of the time (20-30%) / exaggerated negative expectations clearly present, some difficulty considering more realistic beliefs **Severe =** much of the time (50-60%) / pronounced exaggerated negative expectations, considerable difficulty considering more realistic beliefs

Item 10 (D3): Persistent, distorted cognitions about the cause or consequences of the traumatic event(s) that lead the individual to blame himself/herself or others.

In the past month, have you <u>blamed yourself</u> for (EVENT) or what happened as a result of it? Tell me more about that. (*In what sense do you see yourself as having caused (EVENT)? Is it because of something you did? Or something you think you should have done but didn't? Is it because of something about you in general?*) **What about <u>blaming someone else</u> for (EVENT) or what happened as a result of it? Tell me more about that.** (*In what sense do you see (OTHERS) as having caused (EVENT)? Is it because of something they did? Or something you think they should have done but didn't?*) **How much do you blame (YOURSELF OR OTHERS)?** **How convinced are you that (YOU OR OTHERS) are truly to blame for what happened?** (*Do other people agree with you? Can you see other ways of thinking about it?*) (Rate 0=Absent if only blames perpetrator, i.e., someone who deliberately caused the event and intended harm) <u>Circle:</u> Conviction =*Minimal, Clearly Present, Pronounced*, *Extreme* **How much of the time in the past month have you felt that way, as a percentage? % of time__**	0 *Absent* 1 *Mild / subthreshold* 2 *Moderate / threshold* 3 *Severe / markedly elevated* 4 *Extreme / incapacitating* ***Key rating dimensions = frequency / intensity of blame*** **Moderate** = some of the time (20-30%) / distorted blame clearly present, some difficulty considering more realistic beliefs **Severe** = much of the time (50-60%) / pronounced distorted blame, considerable difficulty considering more realistic beliefs

Item 11 (D4): Persistent negative emotional state (e.g., fear, horror, anger, guilt, or shame).

In the past month, have you had any <u>strong negative feelings</u> such as fear, horror, anger, guilt, or shame? **Can you give me some examples?** (*What negative feelings do you experience?*) **How strong are these negative feelings?** **How well are you able to manage them?** [If not clear:] **(*Overall, how much of a problem is this for you? How so?*** <u>Circle:</u> Negative emotions =*Minimal, Clearly Present*, *Pronounced*, *Extreme* **How much of the time in the past month have you felt that way, as a percentage?** % of time _____ **Did these negative feelings start or get worse after (EVENT)?** (*Do you think they're related to (EVENT)? How so?*) <u>Circle:</u> Trauma-relatedness = *Definite Probable Unlikely*	0 *Absent* 1 *Mild / subthreshold* 2 *Moderate / threshold* 3 *Severe / markedly elevated* 4 *Extreme / incapacitating* ***Key rating dimensions = frequency / intensity of negative emotions*** **Moderate =** some of the time (20-30%) / negative emotions clearly present, some difficulty managing **Severe =** much of the time (50-60%) / pronounced negative emotions, considerable difficulty managing

Item 12 (D5): Markedly diminished interest or participation in significant activities.

In the past month, have you been <u>less interested</u> in <u>activities</u> that you used to enjoy? **What kinds of things have you lost interest in or don't do as much as you used to?** (*Anything else?*) **Why is that?** (Rate 0=Absent if diminished participation is due to lack of opportunity, physical inability, or developmentally appropriate change in preferred activities) **How strong is your loss of interest?** (*Would you still enjoy (ACTIVITIES) once you got started?*). **<u>Circle:</u>** **Loss of interest =*Minimal, Clearly Present, Pronounced, Extreme***	0 *Absent* 1 *Mild / subthreshold* 2 *Moderate / threshold* 3 *Severe / markedly elevated* 4 *Extreme / incapacitating* ***Key rating dimensions = percent of activities affected / intensity of loss of interest*** **Moderate =** some activities

Overall, in the past month, how many of your usual activities have you been less interested in, as a percentage? % of activities _____ **What kinds of things do you still enjoy doing?** **Did this loss of interest start or get worse after (EVENT)?** (*Do you think it's related to (EVENT)? How so?*) Circle: Trauma-relatedness = *Definite Probable Unlikely*	(20-30%) / loss of interest clearly present but still has some enjoyment of activities **Severe =** many activities (50-60%) / pronounced loss of interest, little interest or participation in activities

Item 13 (D6): Feelings of detachment or estrangement from others.

In the past month, have you felt <u>distant</u> or <u>cut off</u> from other people? **Tell me more about that.** **How strong are your feelings of being distant or cut off from others?** (*Who do you feel closest to? How many people do you feel comfortable talking with about personal things?*) Circle: detachment or estrangement= Minimal, clearly present, pronounced, extreme. **How much of the time in the past month have you felt that way, as a percentage?** % of time _____ **Did this feeling of being distant or cut off start or get worse after (EVENT)?** (*Do you think it's related to (EVENT)? How so?*) <u>Circle:</u> Trauma-relatedness = *Definite Probable Unlikely*	0 *Absent* 1 *Mild / subthreshold* 2 *Moderate / threshold* 3 *Severe / markedly elevated* 4 *Extreme / incapacitating* ***Key rating dimensions = frequency / intensity of detachment or estrangement*** **Moderate =** some of the time (20-30%) / feelings of detachment clearly present but still feels some interpersonal connection **Severe =** much of the time (50-60%) / pronounced feelings of detachment or estrangement from most people, may feel close to only one or two people

Item 14 (D7): Persistent inability to experience positive emotions (e.g., inability to experience happiness, satisfaction, or loving feelings).

In the past month, have there been times when you had <u>difficulty</u> <u>experiencing positive feelings</u> like love or happiness? **Tell me more about that.** (*What feelings are difficult to experience?*) **How much difficulty do you have experiencing positive feelings?** (*Are you still able to experience any positive feelings?*) Circle: Reduction of positive emotion=Minimal, clearly present, pronounced, extreme **How much of the time in the past month have you felt that way, as a percentage?** % of time _____ **Did this trouble experiencing positive feelings start or get worse after (EVENT)?** (*Do you think it's related to (EVENT)? How so?*) <u>Circle:</u> Trauma-relatedness = *Definite Probable Unlikely*	0 *Absent* 1 *Mild / subthreshold* 2 *Moderate / threshold* 3 *Severe / markedly elevated* 4 *Extreme / incapacitating* ***Key rating dimensions = frequency / intensity of reduction in positive emotions*** **Moderate =** some of the time (20-30%) / reduction of positive emotional experience clearly present but still able to experience some positive emotions

	Severe = much of the time (50-60%) / pronounced reduction of experience across range of positive emotions

Criterion E:

Marked alterations in arousal and reactivity associated with the traumatic event(s), beginning or worsening after the traumatic event(s) occurred, as evidenced by two (or more) of the following:

Item 15 (E1): Irritable behavior and angry outbursts (with little or no provocation) typically expressed as verbal or physical aggression toward people or objects.

In the past month, have there been times when you felt especially irritable or angry and showed it in your behavior? **Can you give me some examples?** (*How do you show it? Do you raise your voice or yell? Throw or hit things? Push or hit other people?*) **Circle:** **Aggression =Minimal, clearly present, pronounced, extreme** **How often in the past month?** # of times _____ **Did this behavior start or get worse after (EVENT)?** (*Do you think it's related to (EVENT)? How so?*) Circle: Trauma-relatedness =*Definite*, *Probable*, *Unlikely*	0 *Absent* 1 *Mild / subthreshold* 2 *Moderate / threshold* 3 *Severe / markedly elevated* 4 *Extreme / incapacitating* ***Key rating dimensions = frequency / intensity of aggressive behavior*** **Moderate =** at least 2 X month / aggression clearly present, primarily verbal **Severe =** at least 2 X week / pronounced aggression, at least some physical aggression

Item 16 (E2): Reckless or self-destructive behavior.

In the past month, have there been times when you were taking more risks or doing things that might have caused you harm? **Can you give me some examples?** **How much of a risk do you take?** (*How dangerous are these behaviors? Were you injured or harmed in some way?*) **Circle:** **Aggression =Minimal, clearly present, pronounced, extreme** **How often have you taken these kinds of risks in the past month?** # of times _____ **Did this behavior start or get worse after (EVENT)?** (Do you think it's related to (EVENT)? How so?) Circle: Trauma-relatedness =*Definite*, *Probable*, *Unlikely*	0 *Absent* 1 *Mild / subthreshold* 2 *Moderate / threshold* 3 *Severe / markedly elevated* 4 *Extreme / incapacitating* **Key rating dimensions = frequency / degree of risk** **Moderate =** at least 2 X month / risk clearly present, may have been harmed **Severe =** at least 2 X week / pronounced risk, actual harm or high probability of harm

Item 17 (E3): Hypervigilance.

In the past month, have you been especially <u>alert</u> or <u>watchful</u>, even when there was no specific threat or danger? (*Have you felt as if you had to be on guard?*) **Can you give me some examples?** (*What kinds of things do you do when you're alert or watchful?*) [If not clear:] **(*What causes you to react this way? Do you feel like you're in danger or threatened in some way? Do you feel that way more than most people would in the same situation?*)** **Circle:** **Hypervigilance =Minimal, clearly present, pronounced, extreme** **How much of the time in the past month have you felt that way, as a percentage?** % of time _____ **Did being especially alert or watchful start or get worse after (EVENT)?** (*Do you think it's related to (EVENT)? How so?*) <u>Circle:</u> Trauma-relatedness = *Definite Probable Unlikely*	0 *Absent* 1 *Mild / subthreshold* 2 *Moderate / threshold* 3 *Severe / markedly elevated* 4 *Extreme / incapacitating* **Key rating dimensions = frequency / degree of risk** ***Key rating dimensions = frequency / intensity of hypervigilance*** **Moderate =** some of the time (20-30%) / hypervigilance clearly present, e.g., watchful in public, heightened awareness of threat **Severe =** much of the time (50-60%) / pronounced hypervigilance, e.g., scans environment for danger, may have safety rituals, exaggerated concern for safety of self/family/ home

Item 18 (E4): Exaggerated startle response.

In the past month, have you had any <u>strong startle</u> reactions? **What kinds of things made you startle?** **How strong are these startle reactions?** (*How strong are they compared to how most people would respond? Do you do anything other people would notice?*) **How long does it take you to recover?** **Circle:** **Startle =Minimal, clearly present, pronounced, extreme** **How often has this happened in the past month?** # of times _____ **Did these startle reactions start or get worse after (EVENT)?** (*Do you think it's related to (EVENT)? How so?*) <u>Circle:</u> Trauma-relatedness = *Definite Probable Unlikely*	0 *Absent* 1 *Mild / subthreshold* 2 *Moderate / threshold* 3 *Severe / markedly elevated* 4 *Extreme / incapacitating* ***Key rating dimensions = frequency / intensity of startle*** **Moderate =** at least 2 X month / startle clearly present, some difficulty recovering **Severe =** at least 2 X week / pronounced startle, sustained arousal, considerable difficulty recovering

Item 19 (E5): Problems with concentration.

In the past month, have you had any <u>problems</u> with <u>concentration</u>? **Can you give me some examples?** **Are you able to concentrate if you really try?**	0 *Absent* 1 *Mild / subthreshold* 2 *Moderate / threshold*

[If not clear:] **(*Overall, how much of a problem is this for you? How would things be different if you didn't have problems with concentration?*)** Circle: Problem concentrating = *Minimal*, *Clearly Present*, *Pronounced*, *Extreme* **How much of the time in the past month have you had problems with concentration, as a percentage?** % of time _____ **Did these problems with concentration start or get worse after (EVENT)?** (*Do you think they're related to (EVENT)? How so?*) Circle: Trauma-relatedness = *Definite* *Probable* *Unlikely*	3 *Severe / markedly elevated* 4 *Extreme / incapacitating* ***Key rating dimensions = frequency / intensity of concentration problems*** **Moderate =** some of the time (20-30%) / problem concentrating clearly present, some difficulty but can concentrate with effort **Severe =** much of the time (50-60%) / pronounced problem concentrating, considerable difficulty even with effort

Item 20 (E6): Sleep disturbance (e.g., difficulty falling or staying asleep or restless sleep).

In the past month, have you had any problems <u>falling</u> or <u>staying</u> asleep? **What kinds of problems?** (*How long does it take you to fall asleep? How often do you wake up in the night? Do you wake up earlier than you want to?*) **How many total hours do you sleep each night?** **How many hours do you think you should be sleeping?** Circle: Problem sleeping =*Minimal*, *Clearly Present*, *Pronounced* *Extreme* **How often in the past month have you had these sleep problems?** # of times _____ **Did these sleep problems start or get worse after (EVENT)?** (*Do you think they're related to (EVENT)? How so?*) Circle: Trauma-relatedness = *Definite* *Probable* *Unlikely*	0 *Absent* 1 *Mild / subthreshold* 2 *Moderate / threshold* 3 *Severe / markedly elevated* 4 *Extreme / incapacitating* ***Key rating dimensions = frequency / intensity of sleep problems*** **Moderate =** at least 2 X month / sleep disturbance clearly present, clearly longer latency or clear difficulty staying asleep, 30-90 minutes' loss of sleep **Severe =** at least 2 X week / pronounced sleep disturbance, considerably longer latency or marked difficulty staying asleep, 90 min to 3 hrs loss of sleep

Criterion F:

Duration of the disturbance (Criteria B, C, D, and E) is more than 1 month.

Item 21: Onset of symptoms.

[If not clear:] **When did you first start having (PTSD SYMPTOMS) you've told me about?** (*How long after the trauma did they start? More than six months?*)	*Total # months delay in onset ___* *With delayed onset (> 6 months)? NO YES*

Item 22: Duration of symptoms.

[If not clear:] **How long have these (PTSD SYMPTOMS) lasted altogether?**	*Total # months duration* _____ *Duration more than 1 month? NO YES*

Criterion G:

The disturbance causes clinically significant distress or impairment in social, occupational, or other important areas of functioning.

Item 23: Subjective distress.

Overall, in the past month, how much have you been bothered by these (PTSD SYMPTOMS) you've told me about? [Consider distress reported on earlier items]	0 *None* 1 *Mild, minimal distress* 2 *Moderate, distress clearly present but still manageable* 3 *Severe, considerable distress* 4 Extreme, incapacitating distress

Item 24: Impairment in social functioning.

In the past month, have these (PTSD SYMPTOMS) affected your relationships with other people? How so? [Consider impairment in social functioning reported on earlier items]	0 *No adverse impact* 1 *Mild impact, minimal impairment in social functioning* 2 *Moderate impact, definite impairment but many aspects of social functioning still intact* 3 *Severe impact, marked impairment, few aspects of social functioning still intact* 4 *Extreme impact, little or no social functioning*

Item 25: Impairment in occupational or other important area of functioning.

[If not clear:] **Are you working now?** [If yes:] **In the past month, have these (PTSD SYMPTOMS) affected your work or your ability to work? How so?** [If no:] **Why is that?** (*Do you feel that your (PTSD SYMPTOMS) are related to you not working now? How so?*)	0 *No adverse impact* 1 *Mild impact, minimal impairment in occupational/ other important functioning* 2 *Moderate impact, definite impairment but many*

[If unable to work because of PTSD symptoms, rate at least 3=Severe. If unemployment is not due to PTSD symptoms, or if the link is not clear, base rating only on impairment in other important areas of functioning] **Have these (PTSD SYMPTOMS) affected any other important part of your life?** [As appropriate, suggest examples such as parenting, housework, schoolwork, volunteer work, etc.] **How so?**	*aspects of occupational/other important functioning still intact* 3 *Severe impact, marked impairment, few aspects of occupational/other important functioning still intact* 4 *Extreme impact, little or no occupational/other important functioning*

Global Ratings

Item 26: Global validity.

Estimate the overall validity of responses. Consider factors such as compliance with the interview, mental status (e.g., problems with concentration, comprehension of items, dissociation), and evidence of efforts to exaggerate or minimize symptoms	0 *Excellent, no reason to suspect invalid responses* 1 *Good, factors present that may adversely affect validity* 2 *Fair, factors present that definitely reduce validity* 3 *Poor, substantially reduced validity* 4 *Invalid responses, severely impaired mental status or possible deliberate "faking bad" or "faking good"*

Item 27: Global severity.

Estimate the overall severity of PTSD symptoms. Consider degree of subjective distress, degree of functional impairment, observations of behaviors in interview, and judgment regarding reporting style.	0 *No clinically significant symptoms, no distress and no functional impairment* 1 *Mild, minimal distress or functional impairment* 2 *Moderate, definite distress or functional impairment but functions satisfactorily with effort* 3 *Severe, considerable distress or functional impairment,*

	limited functioning even with effort 4 *Extreme, marked distress or marked impairment in two or more major areas of functioning*

Item 28: Global improvement.

Rate total overall improvement since the previous rating. Rate the degree of change, whether or not, in your judgment, it is due to treatment.	0 *Asymptomatic* 1 *Considerable improvement* 2 *Moderate improvement* 3 *Slight improvement* 4 *No improvement* 5 *Insufficient information*

Specify whether with dissociative symptoms: The individual's symptoms meet the criteria for posttraumatic stress disorder, and in addition, in response to the stressor, the individual experiences persistent or recurrent symptoms of either of the following:

Item 29 (1): Depersonalization: Persistent or recurrent experiences of feeling detached from, and as if one were an outside observer of, one's mental processes or body (e.g., feeling as though one were in a dream; feeling a sense of unreality of self or body or of time moving slowly).

In the past month, have there been times when you felt as if you were separated from yourself, like you were watching yourself from the outside or observing your thoughts and feelings as if you were another person? [If no:] **(*What about feeling as if you were in a dream, even though you were awake? Feeling as if something about you wasn't real? Feeling as if time was moving more slowly?*)** **Tell me more about that.** **How strong is this feeling?** (*Do you lose track of where you actually are or what's actually going on?*) **What do you do while this is happening?** (*Do other people notice your behavior? What do they say?*) **How long does it last?** Circle: Dissociation =*Minimal Clearly Present, Pronounced Extreme* [If not clear:] **(*Was this due to the effects of alcohol or drugs? What about a medical condition like seizures?*)** [Rate 0=Absent if due to the effects of a substance or another medical condition].	0 *Absent* 1 *Mild / subthreshold* 2 *Moderate / threshold* 3 *Severe / markedly elevated* 4 *Extreme / incapacitating* ***Key rating dimensions = frequency / intensity of dissociation*** **Moderate =** at least 2 X month / dissociative quality clearly present but transient, retains some realistic sense of self and awareness of environment **Severe =** at least 2 X week / pronounced dissociative quality, marked sense of detachment and unreality

How often has this happened in the past month? # of times _____ **Did this feeling start or get worse after (EVENT)?** (*Do you think it's related to (EVENT)? How so?*) Circle: Trauma-relatedness = *Definite Probable Unlikely*	

Item 30 (2): Derealization: Persistent or recurrent experiences of unreality of surroundings (e.g., the world around the individual is experienced as unreal, dreamlike, distant, or distorted).

In the past month, have there been times when things going on around you seemed unreal or very strange and unfamiliar? [If no:] (***Do things going on around you seem like a dream or like a scene from a movie? Do they seem distant or distorted?***) **Tell me more about that.** **How strong is this feeling? (***Do you lose track of where you actually are or what's actually going on?*) **What do you do while this is happening?** (*Do other people notice your behavior? What do they say?*) **How long does it last?** Circle: Dissociation = *Minimal Clearly Present, Pronounced Extreme* [If not clear:] (***Was this due to the effects of alcohol or drugs? What about a medical condition like seizures?***) [Rate 0=Absent if due to the effects of a substance or another medical condition] **How often has this happened in the past month?** # of times _____ **Did this feeling start or get worse after (EVENT)?** (*Do you think it's related to (EVENT)? How so?*) Circle: Trauma-relatedness = *Definite Probable Unlikely*	0 *Absent* 1 *Mild / subthreshold* 2 *Moderate / threshold* 3 *Severe / markedly elevated* 4 *Extreme / incapacitating* ***Key rating dimensions = frequency / intensity of dissociation*** **Moderate =** at least 2 X month / dissociative quality clearly present but transient, retains some realistic sense of environment **Severe =** at least 2 X week / pronounced dissociative quality, marked sense of unreality

CAPS-5 SUMMARY SHEET

Name: _____ ID#: _____ Interviewer: _____ Study: _____ Date: _____

A. Exposure to actual or threatened death, serious injury, or sexual violence	
Criterion A met?	0 = NO 1= YES

B. Intrusion symptoms (need 1 for diagnosis)	**Past Month**	
Symptom	*Sev*	*Sx (Sev ≥ 2)?*
(1) B1 – Intrusive memories		0 = NO, 1= YES
(2) B2 – Distressing dreams		0 = NO, 1= YES
(3) B3 – Dissociative reactions		0 = NO, 1= YES
(4) B4 – Cued psychological distress		0 = NO, 1= YES
(5) B5 – Cued physiological reactions		0 = NO, 1= YES
B subtotals	*B Sev* =	*#B Sx* =

C. Avoidance symptoms (need 1 for diagnosis)	Past Month	
Symptom	*Sev*	*Sx (Sev ≥ 2)?*
(6) C1 – Avoidance of memories, thoughts, feelings		0 = NO 1= YES
(7) C2 – Avoidance of external reminders		0 = NO 1= YES
C subtotals	*C Sev* =	

E. Arousal and reactivity symptoms (need 2 for diagnosis)	Past Month	
Symptom	*Sev*	0 = NO, 1= YES
(15) E1 – Irritable behavior and angry outbursts		0 = NO, 1= YES
16) E2 – Reckless or self-destructive behavior		0 = NO, 1= YES
(17) E3 – Hypervigilance		0 = NO, 1= YES
(18) E4 – Exaggerated startle response		0 = NO, 1= YES
(19) E5 – Problems with concentration		0 = NO, 1= YES
(20) E6 – Sleep disturbance		0 = NO, 1= YES
E subtotals	*E Sev* =	

PTSD totals		
Totals	*Total Sev*	*Total # Sx*

Sum of subtotals (B+C+D+E)		

F. Duration of disturbance	**Current**
(22) Duration of disturbance ≥ 1 month?	0 = NO 1= YES

G. Distress or impairment (need 1 for diagnosis)	Past Month	
Criterion	*Sev*	*Cx (Sev ≥ 2)?*
(23) Subjective distress		0 = NO, 1= YES
(24) Impairment in social functioning		0 = NO, 1= YES
(25) Impairment in occupational functioning		0 = NO, 1= YES
G-subtotals	*G Sev* =	*#G Cx* =

Global ratings	**Past Month**
(26) Global validity	
(27) Global severity	
(28) Global improvement	

Dissociative symptoms (need 1 for subtype)	**Past Month**	
Symptom	*Sev*	*Sx (Sev ≥ 2)?*
(29) 1 – Depersonalization		0 = NO, 1= YES
(30) 2 – Derealization		0 = NO, 1= YES
Dissociative subtotals	*Diss Sev* =	*#Diss Sx* =

PTSD diagnosis	Past Month
PTSD PRESENT – ALL CRITERIA (A-G) MET?	0 = NO, 1= YES
With dissociative symptoms	0 = NO, 1= YES
(21) With delayed onset (≥ 6 months)	0 = NO, 1= YES

Appendix H

Schema Mode Inventory (SMI-English)

Name_____Date Of Birth_____Education_____today date_____

INSTRUCTION: Listed below are statements that people might use to describe themselves. Please rate each item based on **how often** you believe or feel each statement **in general** using the frequency scale.

FREQUENCY: In general 1=Never or Almost Never 2=Rarely 3=Occasionally 4=Frequently 5=Most of the time 6=All of the time	
Frequency	**In general...**
	1. I demand respect by not letting other people push me around.
	2. I feel loved and accepted.
	3. I deny myself pleasure because I don't deserve it.
	4. I feel fundamentally inadequate, flawed, or defective.
	5. I have impulses to punish myself by hurting myself (e.g., cutting myself).
	6. I feel lost.
	7. I'm hard on myself.
	8. I try very hard to please other people in order to avoid conflict, confrontation, or rejection.
	9. I can't forgive myself.
	10. I do things to make myself the center of attention.
	11. I get irritated when people don't do what I ask them to do.
	12. I have trouble controlling my impulses.
	13. If I can't reach a goal, I become easily frustrated and give up.
	14. I have rage outbursts.
	15. I act impulsively or express emotions that get me into trouble or hurt other people.
	16. It's my fault when something bad happens.
	17. I feel content and at ease.
	18. I change myself depending on the people I'm with, so they'll like me or approve of me.

	19. I feel connected to other people.
	20. When there are problems, I try hard to solve them myself.
	21. I don't discipline myself to complete routine or boring tasks.
	22. If I don't fight, I will be abused or ignored.
	23. I have to take care of the people around me.
	24. If you let other people mock or bully you, you're a loser.
	25. I physically attack people when I'm angry at them.
	26. Once I start to feel angry, I often don't control it and lose my temper.
	27. It's important for me to be Number One (e.g., the most popular, most successful, most wealthy, most powerful).
	28. I feel indifferent about most things.
	29. I can solve problems rationally without letting my emotions overwhelm me.
	30. It's ridiculous to plan how you'll handle situations.
	31. I won't settle for second best.
	32. Attacking is the best defense.
	33. I feel cold and heartless toward other people.
	34. I feel detached (no contact with myself, my emotions or other people).
	35. I blindly follow my emotions.
	36. I feel desperate.
	37. I allow other people to criticize me or put me down.
	38. In relationships, I let the other person have the upper hand.
	39. I feel distant from other people.
	40. I don't think about what I say, and it gets me into trouble or hurts other people.
	41. I work or play sports intensively so that I don't have to think about upsetting things.
	42. I'm angry that people are trying to take away my freedom or independence.
	43. I feel nothing.
	44. I do what I want to do, regardless of other people's needs and feelings.
	45. I don't let myself relax or have fun until I've finished everything I'm supposed to do.
	46. I throw things around when I'm angry.
	47. I feel enraged toward other people.
	48. I feel that I fit in with other people.

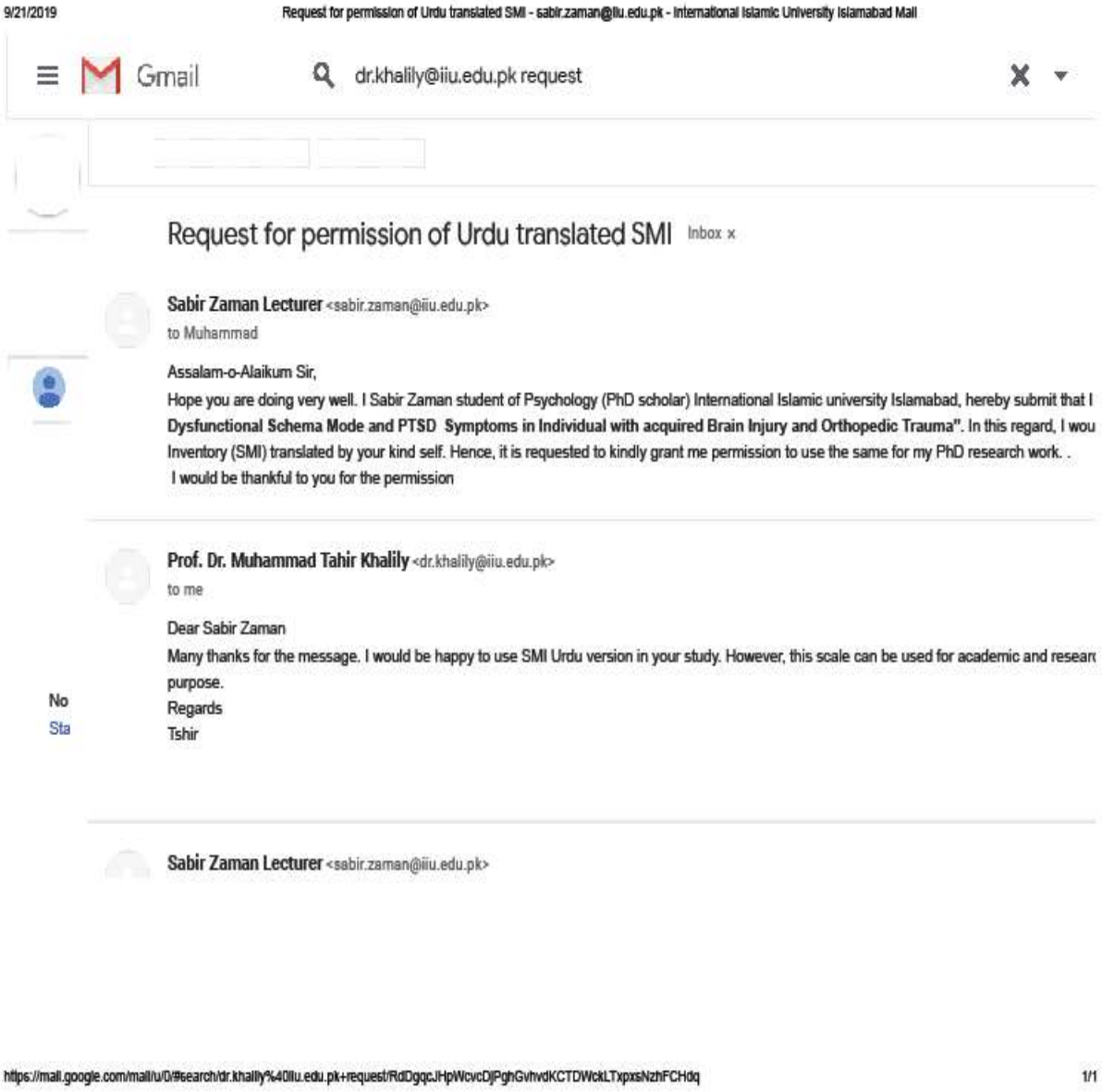
	49. I have a lot of anger built up inside of me that I need to let out.
	50. I feel lonely.
	51. I try to do my best at everything.
	52. I like doing something exciting or soothing to avoid my feelings (e.g., working, gambling, eating, shopping, sexual activities, watching TV).
	53. Equality doesn't exist, so it's better to be superior to other people.
	54. When I'm angry, I often lose control and threaten other people.
	55. I let other people get their own way instead of expressing my own needs.
	56. If someone is not with me, he or she is against me.
	57. In order to be bothered less by my annoying thoughts or feelings, I make sure that I'm always busy.
	58. I'm a bad person if I get angry at other people.
	59. I don't want to get involved with people.
	60. I have been so angry that I have hurt someone or killed someone.
	61. I feel that I have plenty of stability and security in my life.
	62. I know when to express my emotions and when not to.
	63. I'm angry with someone for leaving me alone or abandoning me.
	64. I don't feel connected to other people.
	65. I can't bring myself to do things that I find unpleasant, even if I know it's for my own good.
	66. I break rules and regret it later.
	67. I feel humiliated.
	68. I trust most other people.
	69. I act first and think later.
	70. I get bored easily and lose interest in things.
	71. Even if there are people around me, I feel lonely.
	72. I don't allow myself to do pleasurable things that other people do because I'm bad.
	73. I assert what I need without going overboard.
	74. I feel special and better than most other people.
	75. I don't care about anything; nothing matters to me.
	76. It makes me angry when someone tells me how I should feel or behave.
	77. If you don't dominate other people, they will dominate you.
	78. I say what I feel, or do things impulsively, without thinking of the consequences.

	79. I feel like telling people off for the way they have treated me.
	80. I'm capable of taking care of myself.
	81. I'm quite critical of other people.
	82. I'm under constant pressure to achieve and get things done.
	83. I'm trying not to make mistakes; otherwise, I'll get down on myself.
	84. I deserve to be punished.
	85. I can learn, grow, and change.
	86. I want to distract myself from upsetting thoughts and feelings.
	87. I'm angry at myself.
	88. I feel flat.
	89. I have to be the best in whatever I do.
	90. I sacrifice pleasure, health, or happiness to meet my own standards.
	91. I'm demanding of other people.
	92. If I get angry, I can get so out of control that I injure other people.
	93. I am invulnerable.
	94. I'm a bad person.
	95. I feel safe.
	96. I feel listened to, understood, and validated.
	97. It is impossible for me to control my impulses.
	98. I destroy things when I'm angry.
	99. By dominating other people, nothing can happen to you.
	100. I act in a passive way, even when I don't like the way things are.
	101. My anger gets out of control.
	102. I mock or bully other people.
	103. I feel like lashing out or hurting someone for what he/she did to me.
	104. I know that there is a 'right' and a 'wrong' way to do things; I try hard to do things the right way, or else I start criticizing myself.
	105. I often feel alone in the world.
	106. I feel weak and helpless.
	107. I'm lazy.
	108. I can put up with anything from people who are important to me.

	109. I've been cheated or treated unfairly.
	110. If I feel the urge to do something, I just do it.
	111. I feel left out or excluded.
	112. I belittle others.
	113. I feel optimistic.
	114. I feel I shouldn't have to follow the same rules that other people do.
	115. My life right now revolves around getting things done and doing them 'right'.
	116. I'm pushing myself to be more responsible than most other people.
	117. I can stand up for myself when I feel unfairly criticized, abused, or taken advantage of.
	118. I don't deserve sympathy when something bad happens to me.
	119. I feel that nobody loves me.
	120. I feel that I'm basically a good person.
	121. When necessary, I complete boring and routine tasks in order to accomplish things I value.
	122. I feel spontaneous and playful.
	123. I can become so angry that I feel capable of killing someone.
	124. I have a good sense of who I am and what I need to make myself happy.

Appendix-I

Author Permission for Schema Mode Inventory



9/21/2019 Request for permission of Urdu translated SMI - sabir.zaman@iiu.edu.pk - International Islamic University Islamabad Mail

Gmail dr.khalily@iiu.edu.pk request

Request for permission of Urdu translated SMI Inbox x

Sabir Zaman Lecturer <sabir.zaman@iiu.edu.pk>
to Muhammad

Assalam-o-Alaikum Sir,
Hope you are doing very well. I Sabir Zaman student of Psychology (PhD scholar) International Islamic university Islamabad, hereby submit that I
Dysfunctional Schema Mode and PTSD Symptoms in Individual with acquired Brain Injury and Orthopedic Trauma". In this regard, I wou
Inventory (SMI) translated by your kind self. Hence, it is requested to kindly grant me permission to use the same for my PhD research work. .
I would be thankful to you for the permission

Prof. Dr. Muhammad Tahir Khalily <dr.khalily@iiu.edu.pk>
to me

Dear Sabir Zaman
Many thanks for the message. I would be happy to use SMI Urdu version in your study. However, this scale can be used for academic and researc
purpose.
Regards
Tshir

No
Sta

Sabir Zaman Lecturer <sabir.zaman@iiu.edu.pk>

https://mail.google.com/mail/u/0/#search/dr.khalily%40iiu.edu.pk+request/RdDgqcJHpWcvcDjPghGvhvdKCTDWckLTxpxsNzhFCHdq 1/1

Appendix-J
Author Permission for CAP-5

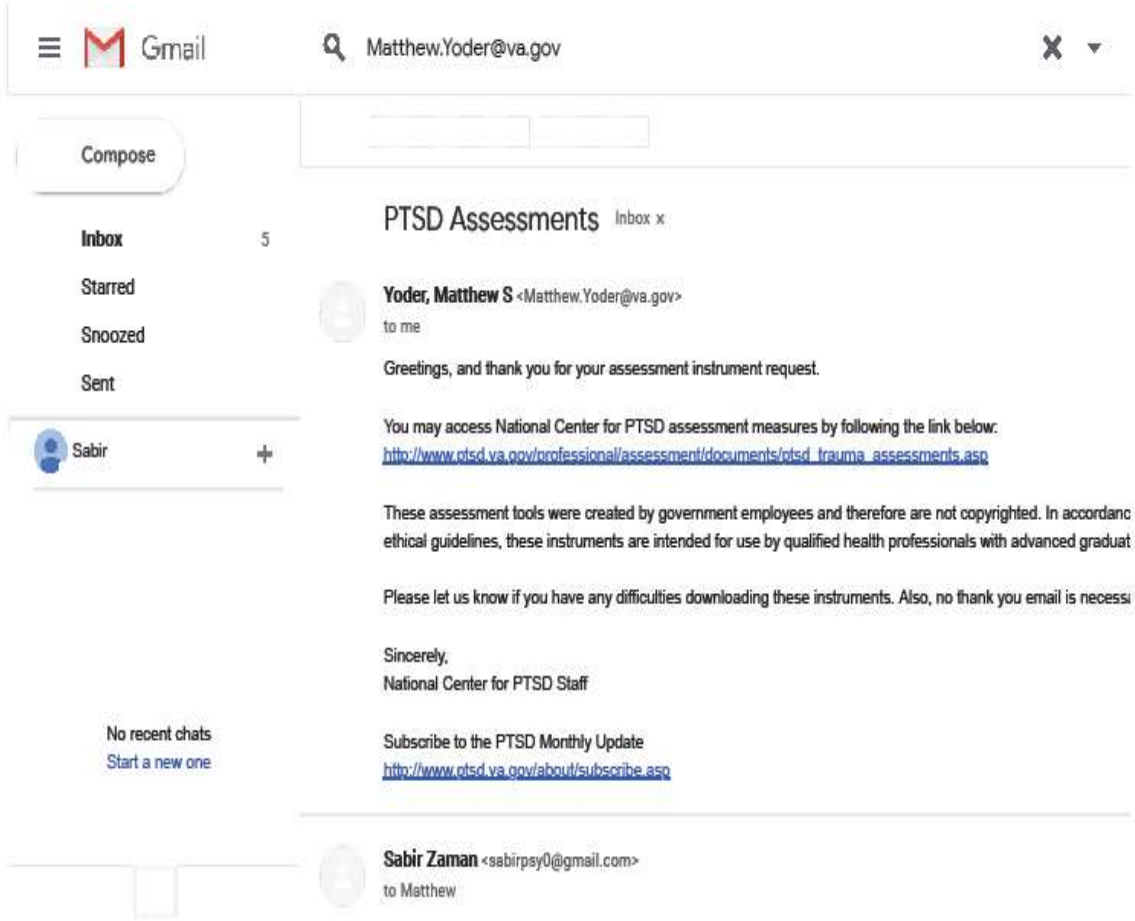
Gmail

Sabir Zaman <sabirpsy0@gmail.com>

Request for CAPS V Scale and Permission
1 message

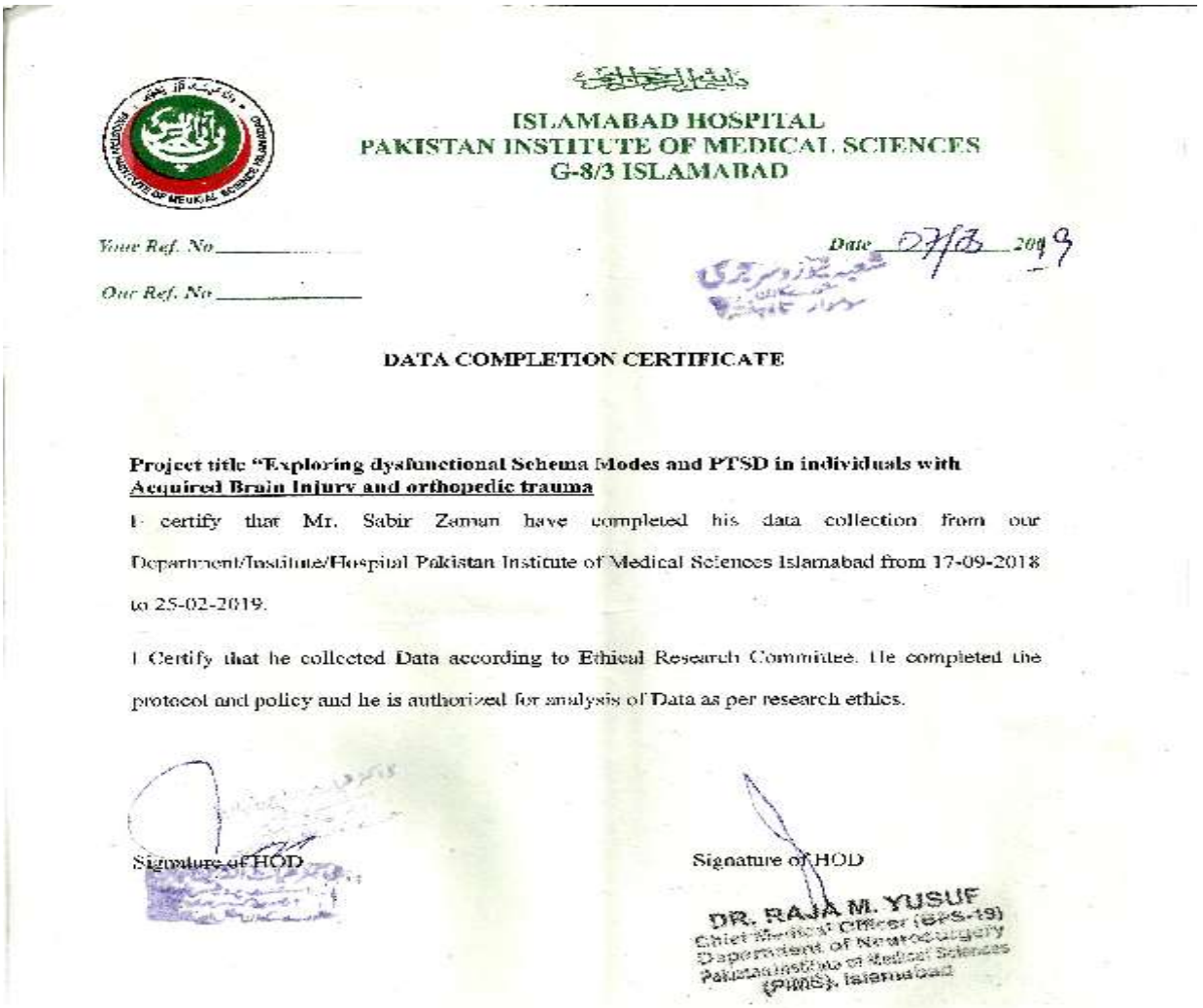
Sabir Zaman <sabirpsy0@gmail.com> Mon, Mar 6, 2017 at 7:48 AM
To: ncptsd.assessment@va.gov

Most respectfully stated that I am a Student of Psychology (PhD Scholar) From International Islamic University Islamabad Pakistan. I Need CAPS V PTSD scale for Our future Research.The Scale will be Purely Used for Study Purposes and also give Me a Permission to Translate the Scale In our Native Language (Urdu). I am very Thankful of your Department Of this Kind of Act.
Thanks
best Regard
Sabir Zaman
PhD Scholar
IIU Islamabad(Pakistan)


Gmail
Matthew.Yoder@va.gov
Compose
Inbox 5
Starred
Snoozed
Sent
Sabir
No recent chats
Start a new one
PTSD Assessments Inbox x
Yoder, Matthew S <Matthew.Yoder@va.gov>
to me
Greetings, and thank you for your assessment instrument request.
You may access National Center for PTSD assessment measures by following the link below:
http://www.ptsd.va.gov/professional/assessment/documents/ptsd_trauma_assessments.asp
These assessment tools were created by government employees and therefore are not copyrighted. In accordanc
ethical guidelines, these instruments are intended for use by qualified health professionals with advanced graduat
Please let us know if you have any difficulties downloading these instruments. Also, no thank you email is necessi
Sincerely,
National Center for PTSD Staff
Subscribe to the PTSD Monthly Update
http://www.ptsd.va.gov/about/subscribe.asp
Sabir Zaman <sabirpsy0@gmail.com>
to Matthew

Appendix-K

Data Collection Certificate



ISLAMABAD HOSPITAL
PAKISTAN INSTITUTE OF MEDICAL SCIENCES
G-8/3 ISLAMABAD

Your Ref. No_____

Our Ref. No_____

Date 07/3/2019

DATA COMPLETION CERTIFICATE

Project title "Exploring dysfunctional Schema Modes and PTSD in individuals with Acquired Brain Injury and orthopedic trauma

I certify that Mr. Sabir Zaman have completed his data collection from our Department/Institute/Hospital Pakistan Institute of Medical Sciences Islamabad from 17-09-2018 to 25-02-2019.

I Certify that he collected Data according to Ethical Research Committee. He completed the protocol and policy and he is authorized for analysis of Data as per research ethics.

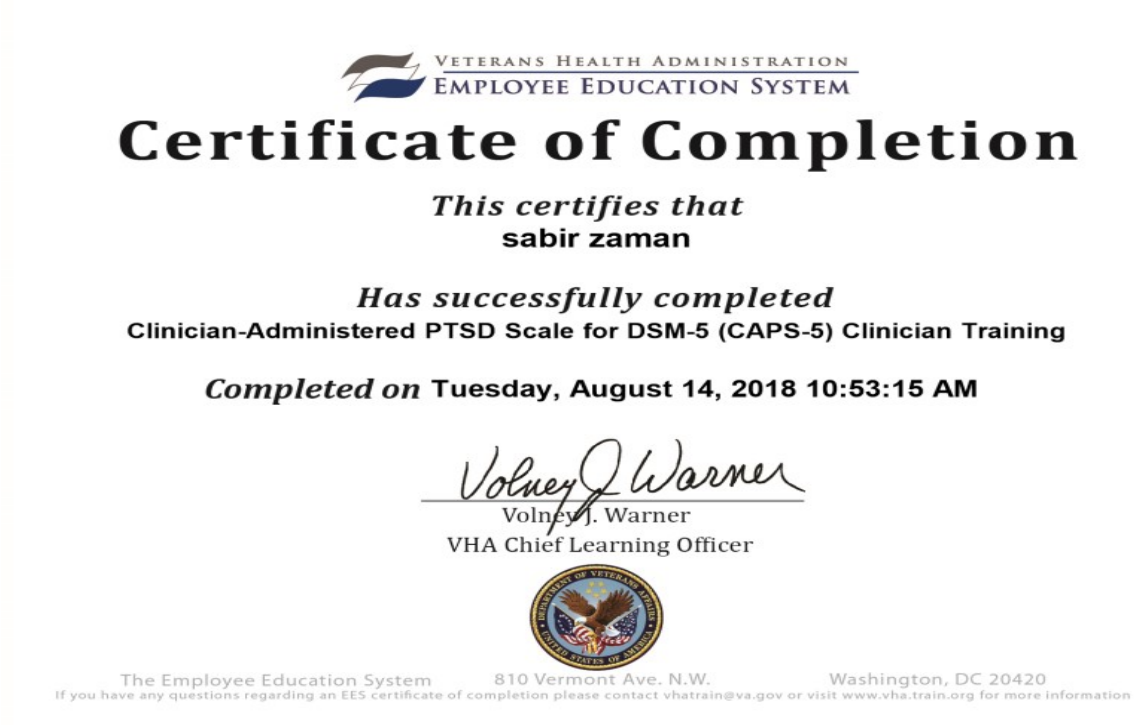
Signature of HOD

Signature of HOD

DR. RAJA M. YUSUF
Chief Medical Officer (BPS-19)
Department of Neurosurgery
Pakistan Institute of Medical Sciences
(PIMS), Islamabad

Appendix L

Certificate (CAPS-5)



VETERANS HEALTH ADMINISTRATION
EMPLOYEE EDUCATION SYSTEM

Certificate of Completion

This certifies that
sabir zaman

Has successfully completed
Clinician-Administered PTSD Scale for DSM-5 (CAPS-5) Clinician Training

Completed on **Tuesday, August 14, 2018 10:53:15 AM**

Volney J. Warner
VHA Chief Learning Officer

The Employee Education System 810 Vermont Ave. N.W. Washington, DC 20420
If you have any questions regarding an EES certificate of completion please contact vhatrain@va.gov or visit www.vha.train.org for more information

TRAIN

TRAIN Transcript: sabir zaman

TRAIN UserID: 1622745

From 2018-07-15 To 2018-08-14

ID	Name	Completed Date	Format	Score	Credit	Status
1068095	Clinician-Administered PTSD Scale for DSM-5 (CAPS-5) Clinician Training	Tue 14 Aug 2018 01:53 PM	SCORM Course	84%		Completed

Undertaking

I solemnly declare that research work presented in the thesis titled "***Exploring dysfunctional schema modes and PTSD in individuals with acquired brain injuries and orthopedic trauma****"* is solely my research work with no significant contribution from any other person. Small contribution/ support whenever taken has been duly acknowledge and that complete the zero tolerance policy of HEC and university, International Islamic University Islamabad towards plagiarism.

Therefore, I as an author of the above titled thesis declare no portion of my thesis has been plagiarized and any materials used as reference is properly cited. I undertake that if I found guilty of any formal plagiarism in the above titled thesis even after award of PhD degree, the university reserves the rights to withdraw/ revoke my PhD degree and that the university has the right to publish my name on the HEC/ university Website on which names of student are placed who submitted plagiarized thesis.

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Name _____