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DEVELOPING A SELF-HELP GUIDE FOR TRAUMATISED UNIVERSITY STUDENTS IN IRAQ

by

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Abstract

Background: Iraqi people have been experiencing traumatic events continually for several decades. Consequently, high prevalence rates of trauma-related symptoms have been documented. In contrast, there is a clear lack in mental health services available for traumatised people. This study aimed to screen for PTSD, depression, and anxiety, assess related variables (e.g. coping strategies, posttraumatic cognitions, and social support), and develop a self-help guide (SHG) for traumatised university students.

Methods: Self-report scales were validated via two studies. The first study validated three scales, including Baghdad Trauma History Screen (BTHS), Brief Cope, and Social Support in a sample of 360 (140 males, 220 females) university students. In the second study, the psychometric properties of the scales of Posttraumatic Stress Symptoms (SPTSS), Posttraumatic Cognitions Inventory (PCTI), and the Hospital Anxiety and Depression Scale (HADS) were gained in a sample of 505 (199 males, 306 females) university students. The SHG was developed. Its effectiveness was examined in a sample of participants who reported symptoms that fully met PTSD criteria. The sample included 125 participants: 65 in the experimental group (used the guide for six weeks) and 60 in the control group (did not use the guide). Baseline tests were conducted in both groups before conducting the experiment and post tests afterward. In addition, focus groups were conducted with experts and university students to evaluate the SHG.

Results: The scales were reliable and valid. Eighty four percent (424/505) of participants reported at least one traumatic event. Thirty five percent of 424

traumatised students fully met the DSM-IV criteria for PTSD with high levels of Depression and anxiety. Only 11% of participants reported no symptoms at all. Females reported more symptoms than males. The results also revealed that active coping, seeking support, and perceived social support from family was associated with low levels of PTSD, while high levels of PTSD related to the number of traumatic events either experienced by participants themselves or their family members or friends, non problem focused coping, negative posttraumatic cognitions about self and the total posttraumatic negative cognitions. After using the SHG, there were significant increases in the tendency to use active and seeking support coping and significant decreases in non problem-focused coping, negative cognitions about self and the total negative cognitions. There was a significant reduction in levels of PTSD. This reduction related to re-experiencing and avoidance symptoms but not hyperarousal. The level of depression was also reduced. Anxiety was not reduced. However, the experiment was not double blind due to practical reasons and this may influence the results.

Conclusion: using the SHG enhanced coping strategies and reduced negative cognitions about self. This led to a reduction in PTSD and depression. Several implications were presented. In addition, self-report scales that validated in this study can be used in future research in the field of traumatic stress in Arabic-speaking populations.

Dedication

I dedicate my thesis to my father and my mother, who taught me that largest task can be accomplished with determination and faith.

To my mother; you did not have the chance to see your dreams, another one is achieved.

This thesis is also dedicated to my brothers Abdalgader, Hashim, Majid and my cousin Isam for their unlimited and sincere support.

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Publication and conferences

The revised version of the self-help guide was reviewed by the publication committee in Educational Studies and Psychological Research Centre in the University of Baghdad. They recommended that the guide can be published and used in counselling units in the universities. Therefore, the guide has been published and distributed into most of the Iraqi universities.

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Conference papers

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Table of contents

List of tables

List of Figures

Glossary of Terms and Abbreviations

AOCS	Avoidant-oriented coping styles
APA	American Psychology Association
ASD	Acute stress disorder
ASR	Acute stress responses
BLAME	Self-blame
BTHS	Baghdad Trauma History Screen
CAPS	Clinician-Administered PTSD Scale
CBT	Cognitive-behavioural therapy
CIDI	Composite International Diagnostic Interview
CISS	Coping inventory for stressful situations
CPTSD	Complex Posttraumatic stress disorder
CSE	Coping self-efficacy
CT	Cognitive therapy
CV	Community violence
DESNOS	Disorders of Extreme Stress not Otherwise Specified
DSM-IV	Diagnostic and Statistical Manual of Mental Disorders-IV
DSM-III	Diagnostic and Statistical Manual of Mental Disorders-III
DSM-III-R	Diagnostic and Statistical Manual of Mental Disorders-III-revised
EF	emotional-focused coping
EMDR	Eye movement desensitization and reprocessing
EOCS	emotional-oriented coping styles
GD	Global distress
GHQ	General health Questionnaire

GO-NGO	governmental and non-governmental organisations
HADS	The hospital anxiety and depression scale
ICD10	International Classification of Diseases 10
IES	Impact of event scale
IES-R	Impact of event scale-revised
IFHSSG	The Iraq Family Health Survey Study Group
IWHO	The Institute of Work, Health and Organisations
NET	Narrative exposure therapy
NGS	Negative Cognition about Self
NGW	Negative cognitions about the world
NICE	National Institute for Health and Clinical Excellence
NR	Negative responses from family and friends
M	Medication
PCT	Posttraumatic Cognitions
PCTI	Posttraumatic Cognitions Inventory
PE	Psychoeducation only
PEM	Psychoeducation and medication
PF	problem-focused coping
PFAP	Psychological first aid programme
PS	Positive support
PTSD	Post traumatic stress disorder
RCT	Randomised controlled trial
RM	Repeated measures
SAM	Situational access memory
SHB	Self-help book/booklet

SHG	Self-help guide
SPTSS	Scale of Posttraumatic Stress Symptoms
SS	Support satisfaction
STAI	State anxiety subscale of State Trait Anxiety Inventory
UN	United Nations
UNICEF	United Nations Children's Fund
VAM	Verbal access memory
WHO	The World Health Organisation

1 Chapter 1: Literature review

1.1 INTRODUCTION

For more than four decades, the Iraqi people have experienced wars and various forms of political repression, violence, and terrorism on an ongoing basis. For example, an internal war in the north of Iraq in the 1970s, the Iraq-Iran war from 1980 to 1988, the chemical attacks in the north of Iraq 1986-1989, the Iraqi invasion of Kuwait leading to the Gulf war in 1991, people's uprisings, the economic sanctions imposed by the UN (Murthy & Lakshminarayana, 2006) and the 2003- present war.

The economic sanctions led to an estimated half a million child deaths in Iraq (Court, 1995). In addition, abuse to human rights was recorded. About half of a sample of 1991 people who were interviewed in 2003 reported at least one or more abuses, for example, torture, killings, disappearance, forced conscription and ear amputation (Amowitz, Kim, Reis, Asher, & Iacopino, 2004).

After the 2003 USA-led invasion, in addition to attacks by the occupation forces, violence and terrorist actions increased enormously. The security situation became much worse and led to around 4 million Iraqis fleeing their homes and becoming displaced persons either inside or outside Iraq. UNICEF estimated that around 1.9 million Iraqis became displaced inside Iraq and 2.2 million outside Iraq; a total of nearly 15% of the population (Morton & Burnham, 2008; UNICEF, 2007).

The Iraq Family Health Survey Study Group (IFHSSG) found that the estimated violence-related deaths were dramatically increased from 104,000 to

223,000 from the occupation war in March 2003 to June 2006; most of them were men (IFHSSG, 2008). Another study found that the risk of these deaths was 58 times higher after the occupation war than in the period before the war (Roberts, Lafta, Garfield, Khudhairi, & Burnham, 2004).

Recently, a study found that there were at least 1003 suicide bomb events that were documented in the period from 2003 to 2010. These incidents led to one fifth of all casualties (42928 of 225789) among Iraqi civilians (Hicks, Dardagan, Bagnall, Spagat, & Sloboda, 2011). More than a quarter of these casualties were deaths. The key problem with these results is that the data were based on media reports rather than official reports from hospitals. Therefore, the reported number of victims might have been affected by the perspective of media agency. However, it is clear that suicide bombings were a leading cause of death and injury among Iraqis after 2003. It is expected that this will cause a variety of mental health problems among the victims. Post Traumatic Stress Disorder (PTSD) is a common disorder experienced after traumatic events and can be accompanied by other mood disorders, such as depression and anxiety.

1.2 PREVALENCE OF PTSD

A considerable number of studies have been published on PTSD worldwide. These studies show that the prevalence of PTSD in the general population differs from country to country. Some variables have been found to cause the differences in PTSD prevalence. These variables include duration, types and severity of traumatic events as well as other variables, such as the characteristics of community, demographic factors, social support, coping and personality traits (Harris, 2005; Valentiner, Foa, Riggs, & Gershuny, 1996;

Vrana & Lauterbach, 1994; Wasserman, E. Havassy, & Boles, 1997; Yule, et al., 2000). Furthermore, the methodological problems with the measurement and the cultural specificity of PTSD itself may affect prevalence rates.

A study was conducted in Algeria, Cambodia, Ethiopia, and Gaza; countries that had experienced conflicts. People in these countries were exposed to cumulative and prolonged trauma. The populations of the study were selected depending on three criteria. The criteria were presence of an intervention programme, absence of ongoing high-intensity conflict, and, finally, accessibility of data collection procedures such as availability of local staff.

The randomly selected participants were asked to report traumatic events and PTSD before and after the age of 12 years. PTSD was evaluated by using the PTSD section of the World Health Organisation's (WHO) Composite International Diagnostic Interview 2.1 (CIDI) that assesses lifetime PTSD according to the Diagnostic and Statistical Manual of Mental Disorders – IV (DSM-IV*)* criteria.

The most important results were that the respondents from Algeria reported conflict events higher than the other three countries whether during childhood or adulthood. This was explained as a result of the ongoing exposure to terrorist attacks. The relationship between conflict events and PTSD was significant in all countries after the age of 12 years.

With regard to the prevalence rates of PTSD, they were 37.4%, 28.4%, 15.8% and 17.8% in Algeria, Cambodia, Ethiopia, and Gaza respectively (de Jong, et al., 2001). In the USA, Kessler et al. (1995) used modified versions of the Diagnostic and Statistical Manual of Mental Disorders III-R (DSM-III-R PTSD

module from the Diagnostic Interview Schedule and of the Composite International Diagnostic Interview to estimate the prevalence of PTSD among 5877 people who were between 15-45 years of age and represented a national sample. The estimated lifetime prevalence of PTSD was 7.8%, and women were affected higher than men. Similarly, Breslau et al. (1998) demonstrated that 9.2% of a representative sample of 2181 people in the Detroit area aged 18 to 45 years had experienced traumatic events and they reported PTSD symptoms.

It is difficult to ignore that people who have experienced traumatic events may develop related symptoms. Although most of them will recover on their own, others will be in a real need to access mental health care to help their recovery.

1.3 MENTAL HEALTH CARE IN IRAQ

The mental health needs of populations are increased by conflict situations. The mental health services in Iraq have dramatically fallen since the 1980s. In 2005, WHO-Iraq stated that there were 91 psychiatrists, 16 psychologists, 145 psychiatric nurses, and 25 social workers (WHO-Iraq, 2006).

According to a statement of a former secretary general of the Iraqi Society of Psychiatrists in 2004, there was a lack of mental health workers; for example, there were only 90 psychiatrists for more than 24 million people. There were also no subspecialists such as child and adolescent and forensic psychiatrists, as well as no psychologists (Lehmann, 2004a).

There were only two psychiatric hospitals in Baghdad to serve the entire country (Lehmann, 2004b). Another Iraqi psychiatrist said to The New York Times that the problem had worsened and the number of psychiatrists had

steeped after 2003 (Goode, 2008). The vast majority of them either moved to the north of Iraq (Kurdistan) or fled the country due to being targeted by violence actions. For example, 7 of 11 psychiatrists left Ibn Rushid mental health hospital in Baghdad.

A recent study stated that the ratio of psychiatrists fell to one psychiatrist per million from one per 300,000 before 2003 (Sadik, Bradley, Al-Hasoon, & Jenkins, 2010). This study found that poor services were available for mentally ill people. In addition, Dr Mohamed Al-Kureishi, who is Deputy National Adviser of Mental Health, has stated that currently there are approximately 100 psychiatrists and 47 psychologists in mental health service units[1]. The security situation was a major factor in the immigration of specialist doctors in Iraq between 2004-2007 (G. Burnham, Lafta, & Doocy, 2009).

In a study of 401 Iraqi doctors in Jordan in 2008, they reported changes in health services in Iraq. These changes included decrease in utilization of services, availability of skilled personnel and the quality of patient care between 2003 and 2007 with slight improvements afterward (Gilbert Burnham, et al., 2011). Therefore, the indications of key public health in Iraq show that health services are considered as one of the poorest in the region (Tarantino, Morton, Kosaraju, Jawad, & Casscells, 2009).

A national survey conducted in Iraq revealed that only 3% of those people who need mental health care can reach it (Alhasnawi, et al., 2009). Moreover, Alhasnawi et al. (2009) found that the Iraqi people think that it is stigmatising to use psychotherapy. Therefore, 27% of Iraqi people who participated in a

[1] -The contact was by email with Dr. Mohamed Al-Kureishi, Senior Specialist Psychiatrist, Ibn-Rushd Psychiatric Teaching Hospital, Deputy National Adviser of Mental Health- MOH

study of attitudes towards mental illness think that mental health disorders should be hidden from other people (Sadik, et al., 2010).

In addition, because of the widespread violence, many families have lost more than one of their members, thereby losing support sources that make seeking professional therapy very expensive for them. In addition, as a sign of neglecting the effects of traumatic events, the media coverage about the events in Iraq focuses on the events themselves rather than the victims, their feelings, and their way of coping with the traumas. In the light of these pressing concerns, traumatised people in Iraq do not have adequate access to mental health services.

Mollica (2006) pointed out that the victims of violence need to be aware of their roles in recovery to boost self-healing and to be able to cope with their emotions such as humiliation, anger, and despair. However, he added that preventing access to mental health services and support sources as well as neglecting the effects of traumatic events by modern society are potential barriers to the development of the self-healing process. This seems to be valid in the Iraqi case due to the dramatic shortage of mental health care.

Consequently, providing other helping resources has a critical impact. Suggesting an intervention programme requires an understanding of PTSD and its risk factors and this will be discussed in the next section.

1.4 PTSD: OVERVIEW

The idea that people can suffer from psychological problems due to stress has been around much longer than has been stated in the formal nosologic classification systems (Yehuda & McFarlane, 1995). For example, the

Sumerians, who lived in the south of Iraq in 2000 BC, lamented over the destruction of Nippur and expressed anguishing and suffering among the population (Kramer, 1981).

In 1980, PTSD was recognised for the first time as a disorder in the Diagnostic and Statistical Manual of Mental Disorders, 3rd Edition (DSM-III) (APA, 1980). Its development as a disorder was a result of a long series of changes in the term and the content. In the 1860s, certain symptoms of stress such as nightmares and hypervigilance, which are PTSD symptoms, were diagnosed as ‘shell shock’ or ‘neurasthenia’ during the American Civil War, also as ‘soldier’s heart’ or as labelled ‘DaCosta's syndrome’ (Wooley, 1982).Later, in 1893 Freud proposed that neurosis was a result of childhood traumatic events (Williams and Hurmi, 2001).

Before the 1970s, in the interpretation of long-term psychiatric effects after a traumatic event, the focus was on the childhood trauma rather than the event itself as a trigger, but that was changed with the appearance of PTSD as a recognised disorder. The recognition was supported by reports of the suffering of Vietnam veterans from the effects of the trauma of combat even years after the war (Figley, 1978).

The development of knowledge about the effects of psychological trauma was the result of the independent works of clinicians and researchers on the experiences of Holocaust survivors, survivors of rape, battered children, and Vietnam veterans. This led to aware the join among these works that separately conducted (Turnbull, 1998a). Consequently, the trauma response symptoms, whether civilian or military, were subsumed under the diagnosis of PTSD in DSM-III (APA, 1980). This was influenced by the joint efforts of the human

rights and antiwar sentiments which prompted sympathetic mental health professionals to think again about the effects of exposure to traumatic events (Lasiuk, 2008).

Similarly, McHugh and Treisman (2007) demonstrate that the supporters of the Vietnam veterans identified, codified, and affirmed their ideas. They seized a opportunity of the fact that " post-Vietnam syndrome" was an expansive term as well as the American Psychiatry Association (APA) who changed the profession's diagnostic methods and nomenclature in the late 1970s. Their efforts were effective on the editorial committees of the APA to include PTSD with all its subtype varieties (acute, chronic, and delayed) in the publication of DSM-III. This inclusion was according to Horowitz's (1976) formulation of the informational processing model of PTSD (APA, 1980).

Meanwhile, the relatively high prevalence of this condition among veterans of the Vietnam War was an important driver for the expansion of PTSD research over the last several decades (Josefina, 1987). Thus, other studies were conducted and found that many Vietnam veterans had PTSD symptoms (Glover, Pelesky, Bruno, & Sette, 1990; A. B. Joseph, 1995; Pearce, Schauer , Garfield, Ohlde , & Patterson, 1985; S. M. Silver & Iacono, 1984; Weiss, et al., 1992; Zimering, Caddell, Fairbank, & Keane, 1993).

According to DSM-III, the first criterion of PTSD is exposure to an incident. This incident should be outside the normal range of human experience, a threat to one's own or one's relatives' lives, and would evoke symptoms of distress in most people. Some years later, there was more emphasis on the avoidance symptoms which led to a new definition of PTSD. These symptoms contain

intentional efforts to avoid thoughts, feelings, activities, and situations that aroused recollections of the trauma (APA, 1987).

Turnbull (1998a) suggested that the emphasis of avoidance of memory only served to focus an idea that the development of PTSD is associated with experiencing an extreme, life-threatening stressor. In DSM-IV, the traumatic event has been redefined to involve actual or threatened death or serious injury or a threat to the physical integrity to self or others, with responses of intense fear, helplessness, or horror (APA, 1994). Thus, the new definition includes exposure to a traumatic event as criterion A1, and subjective reports of experiencing intense fear, horror or helplessness at the time of traumatic event as criterion A2.

Based on DSM-IV, the diagnosis of PTSD should look firstly for a traumatic event (A1) and its ability to stimulate related feelings (A2). However, in many cases traumatic events may occur on multiple and repeated bases which may evoke a different form of symptoms of aftermath exposure. Consequently, a form of PTSD was suggested by Herman (1992), which was called complex PTSD (CPTSD). It is currently under consideration for inclusion in DSM-V under the name of Disorders of Extreme Stress not Otherwise Specified (DESNOS).

The characteristics of CPTSD were listed in the DSM as “associated features” of PTSD. She concluded that as a result of exposure to a protean sequel of prolonged, repeated trauma, survivors may develop a form of PTSD for which the current diagnostic formulation of PTSD is not suitable. This is, because PTSD was derived from observations of survivors of relatively circumscribed

traumatic events: disaster, and rape, sometimes they could be repeated but with no state of captivity.

In the same vein, Whealin and Salon (2008) reported that such prolonged, repeated trauma may cause severe psychological harm which often is not captured by the current diagnosis of PTSD. It seems that CPTSD arises from repeated traumatic events and often childhood trauma.

Furthermore, data were gathered from 1000 college students' and showed that early age of onset, being female and experiencing high magnitude stressors were found to be predictive of the development of CPTSD (Gaines, 1997). It was also found that chronic community violence associated with poverty may led to CPTSD, according to the results of study of 71 African American children between the ages of 9 and 11 years who lived in a high-crime, high-poverty community in Houston, Texas (Jones, 2007).

In the same way, it was discussed that exposure to extreme interpersonal stress is likely to result in mental death, which is a main trait of CPTSD. The basic characteristics of mental death are loss of core beliefs and values, distrust, and alienation from others, shame and guilt, and a sense of being permanently damaged (Ebert & Dyck, 2004).

Regarding whether combat is an example of prolonged trauma, the results of Shemain's study (2001) supported Herman's model which found that the relationship between the Combat Exposure scale and CPTSD was not significant. This means that combat as a traumatic event does not lead typically to CPTSD.

Furthermore, Herman [*] thinks that incidents such as natural disasters, which are generally time limited, do not lead to the development of CPTSD symptoms. In contrast, she and her colleagues found some of the characteristic symptoms of CPTSD with adult-onset trauma such as intimate partner violence, which tends to be of long duration. The most full-blown symptoms were seen in adult survivors of childhood abuse. This means that people who have exposure to ongoing and repeated traumas with a condition of captivity may develop CPTSD.

Herman demonstrated that in the field trials, they did not have people who had survived living in a war zone. She believed that studying the aftermath of traumatic events in Iraq would find some symptoms of complex, as well as simple PTSD in this population, because the civilians are essentially trapped, not by an individual perpetrator but by armed and hostile groups.

However, the field trials leading up to the publication of the DSM-IV failed to find sufficient discrimination between DESNOS and the criteria set of PTSD; thus DESNOS was not included as a separate category (Lasiuk, 2008).

It can be noted that, despite the many changes in terms of both of the terminology and the components of the disorder, it is still necessary that a person who develops symptoms of PTSD has been exposed to at least one traumatic event of which they felt fear, horror, and/or helplessness.

[*] This information was obtained via personal communication with Dr. Judith Herman on 25/10/2009.

1.5 PTSD MODEL

There is no doubt that early reactions to an extreme event are normal and most people who have experienced traumatic events recover on their own, though others may develop chronic or delayed PTSD symptoms (Turnbull, 1998b). The onset and development of PTSD have been discussed in different ways depending on a variety of theories.

According to Foa and her colleagues' emotional processing theory (1989), rigid views of people towards the self and the world before the trauma can lead to more vulnerability to PTSD. These rigid views can be positive; the self is competent and the world is extremely safe, or vice versa. Exposure to a traumatic event may lead to contradicting the positive views or confirming the negative views. In addition, incompetence can be exacerbated by the negative appraisal of events during the trauma, to the symptoms resulted afterwards, to interrupted daily activities, and to the responses of other people. Consequently, Foa and her colleagues proposed that chronic PTSD is underlain by incompetence and danger reinforced by a traumatic event.

In the same way, Dalgleish (2004) claims that the factors related to the development of PTSD can be divided into three sets; pretrauma factors, trauma factors, and posttrauma factors. The pretrauma factors involve the personal psychiatric history of the sufferer, the psychiatric family history, and previous exposure to trauma.

The trauma factors are divided into two categories; event severity and interpretive and experiential factors. The factors of event severity include bereavement, severe personal injury, threat to life, and the type of trauma. The

interpretive factors contain cognitions and appraisal at the time of event and the peritraumatic dissociation.

The last set of factors is the posttrauma factors, including two broad classes. First, support; traumatized people who receive satisfactory support recover more quickly than those who do not receive support. Secondly, the ways that victims interpret their traumatic experiences is associated with the level of symptom severity.

Emotional processing theory has encouraging empirical evidence. For example, Brewin and Holmes (2003) present a review of several studies that support the effectiveness of prolonged exposure, which is a treatment method associated with this theory. In addition, Cahill and Foa (2007) believe that using the same mechanisms to explain natural recovery and the recovery through therapy exposure is a strengthening point in this theory.

According to the cognitive model of Ehlers and Clark (2000), a sense of current threat increases the pathological responses; this threat is a result of the way of processing the traumatic information. The negative appraisals of the trauma and/or its sequelae, as well as the nature of the trauma memory itself, are the main mechanisms which produce the pathological responses. The negative appraisal can lead to a state called mental defeat which reflects the inability of traumatized people to affect their fate, and at the end perceive the self as weak, ineffective, and unable to protect oneself.

This model presents an innovative view of a reciprocal association between the appraisals of trauma, its sequelae and the trauma memory nature (Cahill & Foa, 2007). Cahill and Foa (2007) reviewed studies that showed that “the model

does not explain that the addition of cognitive therapy to exposure therapy does not enhance treatment …, but the addition of exposure therapy does enhance the efficacy of cognitive therapy" (p68).

Brewin, Dalgleish, and S Joseph (1996) posit that the traumatic experiences represent two systems of memory; verbal access memory (VAM) and situational access memory (SAM). VAM memories include the conscious processed information transferred to the long-term memory. Consequently, VAM memories are available for verbal communication and can be intentionally retrieved. In contrast, SAM memories contain information collected by lower level perceptions about the traumatic sensations such as sounds and sights as well as bodily responses such as changes in heart rate, temperature and pain.

As a result, these memories could not be consciously retrieved; however cues such as sights, sounds, smells serve as reminders. The conscious activation of SAM and VAM could lead to habituation which decreases the likelihood of intrusive re-experiencing. In contrast, the unremitting PTSD could be a result of secondary emotions such as guilt, anger, and distress, lack of social support, and the ongoing traumas.

Finally, S Joseph and Williams (2005) present an interesting framework to explain the posttraumatic stress reaction. This model suggests that these reactions that stimulated an event are affected by interactions of a group of variables. These variables include personal factors (schema, assumptions, and networks), event cognitions (conscious and nonconscious representations of the event), appraisal mechanisms (ruminative processes and automatic processes), environment and social context (triggering cues and social support), and coping

strategies (avoidant and active strategies). This model presents a comprehensive understanding of trauma-related symptoms.

It seems that appraisal is at the forefront of the factors associated with the onset and maintenance of the pathological results of the exposure to traumatic events alongside other factors such as the personal risk factors, the psychiatric history, the trauma history, coping strategies, and social support. The appraisal is affected by beliefs about the self, the world which targets the event, its sequelae, the symptoms following the trauma, and others' responses. The history of traumas can also affect the appraisal that has been stimulated by a present event.

The event itself also plays an important role in the development of the symptoms, in particular, according to Dual Representation Theory, as the cues associated with the event serving as uncontrollable reminders.

1.6 RISK FACTORS FOR PTSD

The differences among populations and individuals, in terms of onset, course, severity, and prevalence of PTSD provide evidence that there is a wide range of related variables. Brewin, Andrews, and Valentine (2000) conducted a meta-analysis of risk factors for PTSD. They analysed 77 studies about the prediction of PTSD. Trauma types in these studies were varied, including combat, crimes, disasters, motor vehicle accidents, sexual assaults or rape, and mixed traumas.

They identified 14 risk factors in these studies. These factors were sex (female), age (younger), low socioeconomic status, low intelligence, low education, race (minority status), psychiatric history, childhood abuse, other

previous trauma, other adverse childhood, family psychiatric history, trauma severity, lack of social support, and stressful life events.

A later meta-analysis of 68 studies found seven predictors of PTSD in adults. The predictors were prior trauma, prior psychological adjustment, family history of psychopathology, perceived life threat during the trauma, post trauma social support, peritraumatic emotional responses, and peritraumatic dissociation (Ozer, Best, Lipsey, & Weiss, 2003). Some similarities can be noticed between these two studies of meta-analysis. Particularly, both of them emphasise factors, such as the history of trauma, psychological problems either personal or in family, and low social support.

In terms of severity of trauma, Voges and Romney (2003) showed that people who are exposed to very severe traumatic events showed elevated rates of PTSD compared with those who experienced less severe events. The authors think that there are factors which may affect the development of PTSD and these factors are the severity and the type of traumatic event, characteristics of personality and sex. Their study found that female sex and perceiving a threat to one's life significantly increased the chances of suffering from PTSD.

De Jong et al. (2001) also found that the main risk factor for PTSD was conflict-related trauma after the age of 12 years in conflict areas, such as Algeria, Cambodia, Ethiopia, and Gaza. Similarly, the war-related violence was a significant predictor of PTSD symptoms among Bosnian refugees (Miller, et al., 2002).

In addition to severity of trauma, there are several factors that play an important role in the onset and maintenance of PTSD symptoms among the

people who were exposed to traumatic events. These factors include, for example, family history, the individual's personality, past history of trauma, past history of behavioural or psychological problems, other life events at the time of trauma, social support and exposure to subsequent reactivating events (Yehuda & McFarlane, 1995).

Galea et al. (2005) reviewed 192 studies and findings showed that female sex was a risk factor for the onset of PTSD after disasters. Psychological factors such as guilt, anger, external locus of control, and weaker coping ability have been associated with PTSD onset. In addition, a history of prior traumas, stressors and prior or comorbid psychiatric conditions, social support, and media exposure have been found to be associated with PTSD. Furthermore, eight studies reported that the prevalence rate of PTSD ranged between 30-60 percent in survivors of human disasters, but only one of them had a representative sample of survivors (Yule, et al., 2000).

The nature of exposure, in terms of direct or indirect exposure, has also been studied. In 11 studies, it was found that people who were directly involved in incidents reported more PTSD symptoms than what was reported by rescue workers (Galea, et al., 2005). In the general population, the symptoms were fewer. For example, one of them found that length of time of exposure to the Oklahoma City bombing was significantly correlated with increased probability of PTSD. In the same way, Davidson et al. (2004) have mentioned that exposure to multiple traumas can be associated with PTSD.

With regard to the mental health state of individual before experiencing traumatic events, Schnyder et al. (2001) point out that the healthy individuals before exposure to trauma showed a low level of PTSD symptoms, a high level

of hostility and a low level of self-efficacy at baseline. This clearly correlated with an increase in the measures of different psychopathological symptoms including PTSD symptoms. On the contrary, the biological characteristics were found to not be predictive of PTSD symptoms (Heinrichs, et al., 2005).

According to Jayasinghe, Giosan, Evans, et al. (2008) there were positive relationships between severity of anger and severity of PTSD at follow up. Consequently, anger could be a significant predictor of PTSD. As a result, they concluded that early intervention that target reducing a high level of anger could prevent chronic PTSD.

The predictive role of acute stress disorder (ASD) in subsequent PTSD has been studied. Creamer et al. (2004) found that subsequent PTSD severity was predicted by all ASD symptom clusters. There were only two clusters of ASD that predicted the categorical PTSD diagnosis which were re-experiencing and arousal. In contrast, significant evidence has been found that many of those who had developed PTSD did not meet the criteria for the diagnosis of ASD (Richard A. Bryant, 2003).

The evidence demonstrates that there are a number of variables that affect onset, maintenance, and severity of PTSD.

1.6.1 Traumatic events

The first step for diagnosing PTSD is to screen that the person has been exposed to a traumatic event, so that it can be considered a gateway criterion with two sub-criteria. Firstly, the person is exposed to a traumatic event and, secondly, the person reports experiencing intense fear, horror or helplessness at the trauma (APA, 1994).

For example, to examine a role of trauma in occurring PTSD symptoms, the differences between three groups of veterans who had experienced (a) a war-related traumatic event; (b) a nonwar-related traumatic event; or (c) no traumatic event were evaluated. The results indicated that the two groups who experienced a traumatic event reported significantly more symptoms than the group who never experienced a traumatic event. Furthermore, the group who experienced a war-related traumatic event reported more symptoms than the group who experienced a nonwar-related traumatic event. Because the war traumas are more likely to stimulate fear, horror, and helplessness than any other events, these results support the validity of PTSD (Pearce, et al., 1985).

In terms of nature of exposure, Saari (2005) stated that the victims can be divided into two groups. The first group is those who have been directly involved in an incident which threatened their lives or physical integrity. The second group comprised of those who had been exposed indirectly, such as people who had experienced sudden loss or injury to loved ones; i.e. parents, children, spouses, friends, and colleagues as well as rescue personnel and helpers could be victims, but indirectly.

In contrast, Spitzer, First, and Wakefield (2007) have suggested that exposure (considered as a criterion of the diagnosis of PTSD) should be tightened by adding to Criterion A the qualifier ‘‘directly’ to yield ‘‘directly experienced’’. Based on this, a victim is someone who is exposed to or witnesses a traumatic event directly. They suggested that hearing a loved one has died should not be considered as a traumatic event. Culturally, this does not seem suitable for all populations. For example, in Iraq, people who lost family members reported more PTSD symptoms than those who lost friends (Alatrany, 1995).

Graham-Howard (1993) studied a sample of 50 men and pointed out that there was a significant correlation between exposure to multiple incidents and severity of PTSD. The occurrence of PTSD was not dependent on the nature of exposure whether direct or indirect. In addition, Rogers (1995) confirms the importance of the number of experienced traumatic events as a predictor of PTSD. An increasing amount of literature has supported the predictive role of the number of experienced traumatic events (e.g. E. B. Carlson & Rosser-Hogan, 1991; Cheung, 1994; Jonathan R. T. Davidson, et al., 2004; Follette, Polusny, Bechtle, & Naugle, 1996; Patrick Smith, Perrin, Yule, Hacam, & Stuvland, 2002; Wyshak, 1994).

For example, Kilbourn (1993) suggests that PTSD scores can be predicted by the number of war-related traumatic events which children experienced. This was more important than high exposure and losing a member of their family; i.e. parents and/or siblings. In contrast, Smith, Perrin, Yule, and Rabe-Hesketh (2001) have reported that the level of exposure of children and the reactions of their mothers to war correlated with their distress. The results from studies by Dorsett (1995) and Moses (1996) have supported previous findings regarding the significant correlation between the exposures of close relatives to violence and PTSD and depression.

A previous history of trauma could play an important role in the onset of PTSD. For example, the risk of PTSD from trauma in adulthood is higher after history of exposure to multiple traumatic events compared with a single event in childhood, especially previous assaultive violence (Naomi Breslau, Chilcoat, Kessler, & Davis, 1999). Similarly, a study of 1966 women aged 18-45 showed that 25% of them met DSM A1 Criteria. Seventeen percent of those

who developed PTSD had childhood risks compared to 13% who had adolescent risks (Maercker, Michael, Fehm, Becker, & Margraf, 2004).

Furthermore, it was found that the additional traumas have a cumulative role which increases the likelihood of PTSD. For example, a study of 204 students who were exposed to the 9/11 attacks showed that PTSD symptoms in the students with a medium or a high level of additional traumas were higher than those with a low level of additional traumas. This was explained that the additional traumas whether before or after the mass violence could have more effect on evoking long-term symptoms than a high-dose exposure to the event (Mullett-Hume, Anshel, Guevara, & Cloitre, 2008).

Moreover, trauma history could not only affect the development of PTSD but also increase reporting exposure to new traumatic events (N. Breslau, Davis, & Andreski, 1995). As the exposure to a traumatic event may lead to helplessness, this helplessness may limit the ability to deal with new events. Therefore, traumatised people may consider later events as traumatic regardless of its actual effect. Ongoing exposure may make people more vulnerable to PTSD and new traumas, especially when they do not receive suitable intervention.

However, Breslau et al. (2008) have found that people with a trauma history associated with prior PTSD had more probability to develop PTSD at exposure to new traumatic events compared with those who had experienced previous trauma without PTSD. In other words, people who effectively manage their traumatic experiences and prevented developing PTSD symptoms will be more likely to be able to manage later traumas. This suggests that having positive coping skills is essential to preventing negative aftermaths of traumatic

incidents. Therefore, an intervention programme to help people develop coping strategies is not only useful to reduce PTSD symptoms but also to prevent these symptoms in the later experiences.

1.6.2 Coping strategies

The transactional perspective is the origin of the cognitive theory of stress and coping. This perspective suggests that there is a dynamic, mutually reciprocal, bidirectional relationship between the individual and his/her environment (Tuna, 2003). According to Folkman, Lazarus, Gruen, and DeLongis (1986) the theory proposed two processes to mediate the stressful relationships between the person and environment and the immediate and long-term effects of these relationships.

These processes are cognitive appraisal and coping. The cognitive appraisal has two processes: primary and secondary appraisal (Susan Folkman & lazarus, 1985). In the primary appraisal, the person tries to evaluate whether the experienced event is stressful or not. If it is stressful, the person assesses the coping resources and options to respond to the stressful event; this is named the secondary appraisal process. Folkman (1984) thinks that the type of coping chosen is dependent on the extent to which the stressful event is under control. Though, evaluating whether the event is under control may be affected by the capabilities and skills that the person already possesses.

As it was stated earlier, coping process is the second process of the stress and coping theory. Lazarus and Folkman (1984) defined coping as“ constantly changing cognitive and behavioural efforts to manage specific external and/or

internal demands that are appraised as taxing or exceeding the resources of the person" (p. 141).

Coping strategies were differently categorised. Lazarus and Folkman (1984) classified them into two categories: problem-focused coping (PF) and emotional-focused coping (EF). Problem-focused strategies comprised the thoughts and behaviours that aim to actively cope with the stressful situation. Emotional-focused strategies include wishful thinking, emphasizing the positive, distancing, self-blame, tension-reduction, seeking social support, and self-isolation.

In another classification, coping strategies were categorised into approach and avoidance coping strategies. Approach coping involved positive reappraisal, logical analysis, taking problem-solving actions, and seeking guidance and support. In contrast, avoidance coping included resigned acceptance, cognitive avoidance, seeking alternative rewards, and emotional discharge (Holahan, Moos, & Schaefer, 1996).

According to their salutary degree, Jorgensen and Dusek (1990) classified the strategies into two groups. The most salutary strategies were making decisions, talking about problems with family, and seeking social support. The less salutary strategies were verbal aggression, minimising the importance of problem, and alcohol use.

These examples of classifications show that there are different ways to categorise coping strategies. It is worth stating that what is most important is not how to classify them but how they link to post stress effects.

There is a large volume of published studies describing the link between coping as strategies or skills and the aftermath of traumatic events. This link was one of the aims of the review conducted by Galea et al. (2005). The review looked at a number of studies about PTSD and found that 5 studies confirmed that weaker coping ability had a significant correlation with the onset of PTSD.

This coping ability was expressed as coping behaviours (R. C. Silver, Holman, McIntosh, Poulin, & Gil-Rivas, 2002), sense of coherence (Eriksson & Lundin, 1996), the attitudes towards emotional expression (S Joseph, et al., 1997), strategies (e.g. active coping, acceptance, behavioural disengagement) (Mitchell, Griffin, Stewart, & Loba, 2004) and drinking to forget (Stewart, Mitchell, Wright, & Loba, 2004). Strous, Mishaeli, Ranen, et al.(2007) also observed that the responses to terror in 93 people who experienced terrorist attacks in several restaurants in Israel clearly depended on coping mechanisms, such as calling or being in touch with friends or relatives.

Similarly, the mediating role of coping strategies and perceived social support between trauma and mental distress and quality of life was analysed (Araya, Chotai, Komproe, & Jong, 2007). They randomly selected 1193 internally displaced Ethiopian adults (740 women and 453 men). There was an increase in mental distress with a decrease in the quality of life.

In examining the relationship between coping strategies and perceived social support, Path analysis showed that both direct and indirectly moderated mental distress and quality of life, especially in women. González-Morales, Peiró, Rodríguez, and Greenglass (2006) also found similar results which showed that using social support coping was more frequent in women than men and it

was only useful for women, while for men, direct action coping was more beneficial.

In addition, coping can play a predictive role in PTSD through mediating the relationship between the acute stress response and subsequent distress. Benight and Harper (2002) examined the role of coping self-efficacy (CSE) as a moderator between acute stress responses (ASR) and distress after 1 year. Distress was represented by PTSD and global distress (GD) as measured by the impact of events scale and the brief symptoms inventory. As part of the study, 46 residents (49% female) with a mean age of 54 years were sampled. They had experienced two disasters; fire and flood. Sixty percent of them reported some physical damage of properties as a result of the disasters, and 74% felt that the fire was not severely threatening to their lives. In contrast, 16% reported that the flood threatened their lives. 34% of them also mentioned that distress ranged from moderate to severe due to the merged influences of both disasters. The examination included two tests; the first one was 3-8 weeks after both disasters (Time 1) and the second was 1 year later (Time 2). The results showed that at Time 1 both PTSD and GD were clearly predicated by ASR and CSE. the significant predictors of Time 2 PTSD symptoms were Time 1 PTSD symptoms and Time 2 CSE. Generally, at Time 2, the CSE played a moderator role between ASR and both PTSD and GD.

In the same way, a study by Benight, Cieslak, Molton, and Johnson (2008) found similar results regarding the effect of CSE. They also found that post traumatic stress symptoms were significantly predicated by escape–avoidance, distancing, seeking social support and problem solving as coping strategies.

Furthermore, the relationship between coping and mental health generally and PTSD particularly may be positive or negative depending on strategies and styles of coping. It seems that using more maladaptive coping strategies correlated with greater risk for PTSD (Haisch, 2004). Further research was carried out by Aldwin and Revenson (1987) who explored whether psychological symptoms can be affected by coping strategies. In particular, it was found that emotion-focused coping negatively affected mental health compared with problem-focused coping. In another study, the correlation between PF and EF coping and distress was examined in 510 adults. The relationships between distress and both PF and EF were significant; negative and positive respectively.

Furthermore, coping could be more effective even with a high level of past symptoms and stress. For example, a sample of 216 undergraduate students was studied. The results showed that mental health was affected by coping efforts regardless of the past level of symptoms and intensity of stress. However, this effect related to the coping style; for example, PF coping was more effective on reduction of psychological symptoms compared with emotion-focused coping. In terms of sex, women used more EF than men, regardless of the perceived stressfulness of the event (Eaton & Bradley, 2008).

It seems that coping efforts that aim to avoid the painful consequences of traumatic events can make the situation worse. Scarpa, Haden, and Hurley (2006) tested the role of coping style and perceived social support in moderating the relationship between community violence (CV) and the severity of PTSD. The sample included 372 men and women with ages ranging from 18-22 years. PTSD scores increased as a result of the high level of CV

and avoidant style of coping and low perceived social support from family and friends.

In contrast, the high levels of perceived social support from friends played a meaningful role in preventing the development of severe PTSD after exposure to CV. Consequently, the support of friends has a protective function while avoidant coping increased likelihood of PTSD. Similarly, Arata (2000) highlighted a significant relationship between avoidant coping and PTSD. In the same way, Langley and Jones (2005) observed that avoidance coping and support coping had a significant relationship with PTSD. In a sample of 123 college students who experienced the unexpected death of a close person, it was found that avoidant emotional coping was a meaningful predictor of PTSD (Schnider, Elhai, & Gray, 2007).

The relationship between the passive appraisal and psychological distress has been studied. For example, Navia and Ossa (2003) examined a sample of 55 kidnapped persons and 158 of their family members. The participants were divided into three groups according to the interval period between being released from kidnapping and the examination. The interval periods were 19 (2-4) months, 18 (5-8) months, and 18 (9-15). Distress and PTSD symptoms were high with no significant difference found over time between groups or between the kidnapped and their relatives. The healthier family function had improved psychological adjustment. The results also reflected that the frequent use of the passive appraisal negatively correlated with high psychological distress.

Coping style could be a predictor of the development of level of subsequent PTSD. In LeBlanc, Regehr, Jelley, and Barath's study (2008) 84 police recruits

were selected; 71.4% of them were men and the rest were women, with a mean age of all participants was 30.3 years. They participated in a scenario that represented a stressful virtual work situation. The scales included the Coping Inventory for stressful situations (CISS), the Impact of Event Scale-Revised (IES-R), State anxiety subscale of State Trait Anxiety Inventory (STAI), measures for physiological responses, and measures for performance. The results showed that using emotion-oriented coping styles (EOCS) and avoidant-oriented coping styles (AOCS) were mostly correlated with suffering from trauma symptoms compared with those not using EOCS and AOCS. The most correlated symptoms were avoidance and arousal with EOCS and the symptoms of intrusion and arousal with AOCS. Furthermore, the recruits who used both of the above styles were more likely to meet the criteria for diagnosis of PTSD. In contrast, there was no significant correlation between using task-oriented coping styles and the presence of trauma symptoms.

However, according to Chung, Werrett , Easthope , and Farmer (2004) the main effects of disasters may correlate with the features of disasters rather than the other factors. They studied a total of 148 of three age groups such as young, middle aged and elderly. They had experienced technological disasters; aircraft crash and train collision. The results showed that effects of these disasters correlated with their type and intensity of exposure rather than their coping efforts.

Most of the studies found coping to be correlated significantly with post traumatic stress symptoms (PTSS), although there were differences among these studies in terms of traumatic events, age, and sex as well as methodology. It was also mentioned that this relationship was positive when coping targeted

dealing and analysis of the problem itself rather than avoiding the emotional results of problem. In some cases, coping was more predictive of PTSD than trauma history and traumatic events. In contrast, in a few cases, the severity of incident had higher correlation with the aftermath of trauma than coping. Therefore, an intervention programme that aims to develop active coping strategies has an essential importance to prevent and reduce trauma-related symptoms.

1.6.3 Posttraumatic Cognitions

Posttraumatic stress symptoms are related to traumatic experiences. However, the relationship between exposure to traumatic incidents and trauma symptoms is not necessarily a direct relationship, but it can be indirect. Traumatic experiences could negatively affect the cognition of both self and the world and change self-image. Therefore, this could worsen the psychological impact of traumatic events.

Dunmore, Clark, and Ehlers (1999, 2001) found a significant relationship between a number of cognitive factors and the onset and maintenance of PTSD symptoms. Mental defeat, mental confusion, detachment, negative appraisal of initial symptoms, negative appraisal of others' responses, perceived permanent change, avoidance/safety seeking, and negative beliefs are examples of cognitive factors after assault. They concluded that understanding the cognitive factors related to persistent PTSD has an important positive effect on the treatment of PTSD.

Moreover, Bennett, Beck, and Clapp (2009) studied the relationship between PTSD and trauma cognitions and they found that posttraumatic cognitions

(PTC) were a predictor variable of the severity of PTSD. In the same way, Lommen, Sanders, Buck, and Arntz (2009) examined the psychosocial predictors in chronic PTSD in 113 Sri Lankan tsunami victims. They found significant relationships between PTSD and negative interpretation of tsunami memories and negative cognitions about self.

In contrast, the negative cognitions about the world were not significant. Similarly, Karl, Rabe, Zöllner, Maercker, and Stopa (2009) found that the severity of PTSD can be predicted by the negative cognitions about self but not about the world in survivors of motor vehicle accidents. In addition, the changes in PTSD and self-cognitions after a treatment with CBT were associated.

O'Donnell et al. (2007) conducted a follow up study for one year to examine the direct and indirect predictive relationship between PTC and PTSD symptoms. They found that the subscales of the post-traumatic cognition inventory (PCTI) had a significant predictive role of PTSD symptoms. Specifically, negative cognition about the self generally had the strongest effect to evoke and maintain PTSD symptoms compared with negative cognitions about the world.

In the same way, Bryant and Guthrie (2005) found that PTCI-Self score, which was related to a past trauma, was the only significant predictor of subsequent trauma-related symptoms. Moreover, acute stress disorder significantly correlated with negative cognitions about self, but not with negative cognitions about the world and self-blame (Nixon & Byrant, 2005).

Carek, Norman, and Barton (2010) studied the relationship between cognitive appraisals and severity of PTSD symptoms in 54 (20 men, 34 women) informal caregivers of stroke survivors. The results showed that the severity of PTSD and PTC about self and the world and self-blame were significantly correlated.

Posttraumatic cognitions are a central factor in the onset and maintenance of PTSD. Therefore, an intervention programme that aims to change these cognitions may have a positive impact on preventing chronic PTSD and reducing the severity of existing PTSD symptoms.

1.6.4 Social support

Cobb (1976) defined social support as information that leads the individual to believe that they are cared for and loved, esteemed and valued, and belong to a network of communication and mutual obligation. In addition, this information should fulfil the social needs and prevent the negative impacts of disasters and stressors. In the same way, Billings and Moos (1981) studied the social support resources, such as family, friends, relatives, community, and organisations. They demonstrated that the quality but not the quantity of support resources had a significant impact on stress.

Sandler and Barrera (1984) emphasised that three facets of social support should be assessed including receipt of supportive transactions, satisfaction with the received support, and network treats. Vaux (1988) thinks that the study of social support was focused on three elements. The first element was the range of social relationships. He concluded that researchers examined three levels of these relationships. The first level labelled social integration measured factors, such as marital status, contact with friends and family and membership

of charities or voluntary organisations. The second level considered the extent to which intimate relationships were available, and the third examined social networks ties, such as workplaces, neighbourhoods, or nongovernmental organisations. The second element was the actual and perceived features of support where some researchers dealt with the events and activities of support while others studied the perceptions of social support behaviours. The third element focused on forms of social support, activities and functions of support, the empirically generated forms of helping, and reviews of support typologies.

House and Kahn (1985) stress that three aspects of social relations, which are quantity, structure, and function should be considered when social support is investigated. They also claim that these aspects are interrelated and can provide interpretations of the impacts of social support. While Tardy (1985) illustrates that five issues were considered by the researchers who studied social support, which are direction of social support (given or received), disposition (availability of support or its enactment), evaluation (satisfaction) and description, content (emotional, instrumental, informational, appraisal), and network (family, close friends, neighbours, co-workers, community, and professionals).

Flannery (1990) suggests that social support is a multidimensional concept that may indicate comfort, assistance, and/or information that are received verbally or nonverbally from others either through formal or informal ways and they should be recognised as helpful.

Brugha (1995) concludes from social support literature that three traits should be considered when support is being measured. These traits are: the support type in terms of the amount of it and the satisfaction, the support sources such

as family friends, and organisations, and the functions of supports; for example, emotional support and instrumental support.

1.6.4.1 Social support and traumatic events

Incidents that evoke trauma-related symptoms should be characterised by the ability to stimulate horror, fear, or helplessness. They could threaten the life of him/herself or a close person, or their physical integrity. Consequently, that can lead the victims to feel negatively, especially in man-made disasters, toward those who caused stress which he/she suffers. These disasters may affect negatively people's perceptions toward others and security feelings within their social context.

The tendency of traumatised persons to isolate themselves may be an example. Social support could modify these negative attitudes and feelings. Many studies have been conducted to examine the mediating role of social support between exposure to a traumatic event and posttraumatic stress symptoms. For example, Bleich, Gelkopf, and Solomon (2003) examined a sample of 512 participants who had experienced terrorist attacks. They reported distress and a decreased sense of safety, though their levels of psychiatric distress were not high. It seems, according to the results, it was due to social support.

Highlighting the role of social support has been the aim of a number of reviews. Galea, Nandi, and Vlahov (2005) reviewed 192 studies to examine the epidemiology of PTSD after disasters. Eight studies revealed that low social support was associated with PTSD onset. This suggests that people who have low social support are more likely to develop PTSD.

Similarly, Guay, Billette, and Marchand (2006) examined the risk factors of PTSD in 77 studies. They found, in 11 studies, that the lack of social support was the strongest predictor. Mainly, these studies revealed the relationship between the development and maintenance of PSTD and social support in terms of perceived support, and significant others' responses. It was clear that the low level of perceived support positively related to PTSD. The negative responses of others were related to an increase of PTSD symptoms, but the positive responses did not relate to the decrease of PTSD symptoms.

In addition, women showed more seeking of support and more beneficial effects than men. The negative responses may confirm the victims' thoughts about the environment as an unsafe place, thereby increasing the likelihood of PTSD symptoms. In contrast, the positive responses may not be enough to disconfirm the negative thoughts about self and others; therefore, symptoms are not significantly improved.

For example, Declercq and Palmans (2006) investigated 544 subjects working for a security company and the Belgian Red Cross. They were exposed to critical incidents. The results revealed that the perception of social support moderated the likelihood of occurrence of PTSD. This result reflects the significant relationship between social support and PTSD (Dirkzwager, Bramsen, & Van der Ploeg, 2003; Feng, et al., 2007; Maschi, 2006).

The relationship between social support and consequences of exposure to traumatic events may be affected by different factors such as sex, exposure, types of incidents, and factors related to social support itself. In terms of sex, Ahern, Galea, Fernandez, et al. (2004) found that the effects of social support and traumatic experiences on mental health in conflict situations may be

different due to the sex of people. The sample was 306 emergency department patients who experienced the Kosovo war. Two years after the ending of the war, 97.4% had experienced traumatic events and 89.5% had posttraumatic stress symptoms. Posttraumatic stress scores were higher in women and people who had been exposed to multiple traumatic events.

However, people with social support had lower posttraumatic stress scores. High prevalence of posttraumatic stress symptoms continued even two years after the war, especially among women with low social support. Another study was conducted to examine the relationships between sex, PTSD, and variables of social support such as positive support (PS), negative responses (NR) from family and friends, and support satisfaction (SS). One hundred and eighteen men and 39 women exposed to violent crimes were selected and studied 1 and 6 months after exposure. The results showed that the degree of injury was significantly higher in men than women. However, women reported more PTSD symptoms at both the periods. In terms of variables of support, there was no significant differences in PS, SS but NR were significantly more in women. For the whole sample, there was no significant relationship between PTSD at 1 and 6 months post crime and positive support, while there was a significant relationship with support satisfaction and negative responses; positive and negative respectively (Andrews, Brewin, & Rose, 2003).

In addition to the significant relationship between social support and the effects of the aftermath of trauma such as war and violence, this relationship has been noticed after other types of traumas. For example, in Burge's study (1984) there was a clear decrease in PTSD symptoms as a result of social support in the victims of sexual assaults. Moreover, this relationship was significant after

exposure to a flood (Feng, et al., 2007) and road traffic accidents (Holeva, Tarrier, & Wells, 2001). Social support also enhanced results of CBT of victims of sexual assault (Billette, Guay, & Marchand, 2008). This suggests that the effectiveness of an intervention programme may be associated with the social support provided. Social support may serve as a buffer as well as disconfirming negative cognitions about the world.

In terms of sources of social support, Klari'c, Franciskovi'c, Klari'c, et al. (2008) aimed to examine the protective role of the different sources of social support. They selected two groups of women; 187 were directly traumatized by the war and postwar social insecurity in Herzegovina and 180 were the control group. The results showed that the perceived social support from friends and co-workers were significantly more protective for all levels of posttraumatic symptoms than the perceived social support from family, although the levels of the first two sources, friends and co-workers, were lower.

In the same way, Haden, Scarpa, Jones, and Ollendick's study (2007) found that more perceived social support from friends correlated significantly with fewer PTSD symptoms. In addition, in a sample of 46 youths who experienced Hurricane Katrina, lower levels of symptoms of PTSD, anxiety and depression correlated predicatively with higher levels of helpfulness from extrafamilial sources of social support. Helpfulness from professional support sources also was a significant predicator of PTSD (Pina, et al., 2008).

With respect to forms of social support, Hyman, Gold, and Cott (2003) investigated their role in the reduction of the development of PTSD in 172 of women survivors childhood sexual abuse. Social support buffered the development of PTSD. Self-esteem and appraisal support were more important

to prevent this development compared with tangible (the availability of materials resources) and belonging (feeling of being a part of a social group) support.

In addition, it seems that scores of depression and anxiety could be predicted by certain forms of social support. For example, Pickens, Field, Prodromidis, Pelaez-Nogueras, and Hossain (1995) found that material and emotional social support played a clear role on the prediction of scores for anxiety and depression for 220 college students after exposure to hurricane Andrew which hit southern Florida.

An additional factor that related to the predictive role of social support is network orientation which "refers to one's attitudes and expectations concerning the usefulness of employing social resources in times of need" (Clapp & Gayle Beck, 2008, p. 2). Clapp and Gayle Beck (2008) examined a role of network orientation in an explanation of the association between PTSD and social support. Using path analysis of data collected from 458 participants exposed to serious motor vehicle trauma, it firstly showed a direct relationship between PTSD and negative network orientation. Secondly, there was an inverse association between negative network orientation and social support. These two relationships contributed in a significant indirect relationship between PTSD and social support through negative network orientation.

It is not only the perception of social support which could affect its role in the development of PTSD symptoms but also the nature of social reaction itself; in terms of positive, negative, or neutral. Pruitt and Zoellner (2008) experimentally examined the effect of these social reactions on anxiety and intrusive thoughts. The experiment included exposure of 93 participants to

viewing a distressing videotape. The results showed that there was an increase in frequency and severity of intrusive thoughts as a result of the neutral reactions. This effect was more significant than negative reactions.

Nevertheless, a role of social support might be diluted by severity of exposure. Soysa (2002) found through 60 children, 9-16 years, of war survivors in Sri Lanka, that child PTSD was affected by coping , perceived social support, and mother trauma. This effect was more significant in the context of lower war exposure compared with higher exposure. This may suggest that high exposure prevents traumatised people from either perceiving social support and/or seeking support.

Generally, measuring social support should consider four factors, including sources i.e. family, friends, and organisations; support functions i.e. emotional, instrumental, and informational support; satisfaction with support and finally whether it is received or perceived. As long as social support is measured by a self-report scale then it is perceived rather than received as the participants will subjectively evaluate this support.

1.7 PTSD COMORBIDITY

It does not seem a true assumption that exposure to traumatic events leads to a well-defined disorder. Furthermore, it is likely that common disorders such as depression and anxiety could be comorbid with PTSD. The increased likelihood of depression may correlate with the occurrence of mass disasters. Six months after September 11, 2001, Person, Tracy, and Galea (2006) investigated the incidence of probable major depression and risk factors for depression in 2700 residents in New York. The results showed that there were

a number of factors related to the likelihood of probable major depression such as having a perievent panic attack, being a direct victim and experiencing multiple life stressors and previous traumatic events. According to the results, mass traumatic event exposure plays a predictive role in depression.

In addition, in a representative national sample of 5877 people with ages ranging from 15-54, it was found that PTSD is frequently comorbid with other psychiatric conditions such as anxiety disorders, depression, and substance abuse (R. C. Kessler, et al., 1995).

To explore the relationships among PTSD, depression, and comorbid PTSD/depression following traumatic injury, 363 physical injury survivors were studied. The results suggested that PTSD and depression express a shared vulnerability with similar predictive variables when they occur simultaneously. Nevertheless, the independency of depression occurrence from PTSD was documented in a minority of cases at 3 months (O'Donnell, Creamer, & Pattison, 2004).

Additionally, the comorbidity of PTSD, major depression and substance abuse were studied in a sample of 4,023 adolescents ages 12-17. They were telephone-interviewed. The participants experienced interpersonal violence such as physical assault, sexual assault, or witnessed violence. It was estimated that at least 1 disorder was diagnosed in approximately 16% and 19% of boys and girls respectively. Moreover, the likelihood of PTSD to be comorbid was more than in major depression and substance abuse (Kilpatrick, et al., 2003).

To clarify whether there is similar comorbidity between victims a natural disaster and veterans, Green, Lindy, Grace, and Leonard (1992) researched the

comorbidity in 193 victims of the Buffalo Creek dam collapse of 1972 14 years after of the disaster. They pointed out that a significant percent of participants showing past and current PTSD firstly and major depression secondly and that they were related. Moreover, anxiety disorders were common as well. In addition, the authors reported that the overlap diagnosis was clearly similar with what they found in a previous study of Vietnam veterans. Similarly, NICE (2005) reported that in 80-90 % of people with PTSD, depression and anxiety disorders are common as well as alcohol and drug use.

To explore the role of exposure to violence in comorbidity, the association between mental disorders and disability was examined in 534 Bosnian refugee adults who were exposed to mass violence. In this study, disability was a function of the medical outcome, physical functioning, socioeconomic activity, levels of physical energy, and perceived health status. In addition to other results, the search revealed that symptoms comorbid for PTSD and depression was reported in 20.6% of the participants. in addition, 25.5% of participants reported having disability. These comorbid symptoms was correlated with an increased risk for disability compared with asymptomatic refugees (Mollica, et al., 1999).

It is clear that PTSD is not the only result of exposure to traumatic events. Disorders such as depression, anxiety, and other mental disorders seem more likely to occur in conjunction with PTSD. Therefore, any effective intervention programme should take into account this comorbidity.

1.8 INTERVENTION

Traumatic events are unavoidable, and many victims recover on their own over time or never experience symptoms (Turnbull, 1998a, 1998b). Nevertheless, a significant number of traumatised people may develop chronic or delayed post traumatic stress symptoms and in turn they need help to recover, and others may develop delayed symptoms. A variety of psychological interventions can be effective treatments for PTSD, and these treatments are more effective than pharmacological interventions (Adshead, 2000). Hence, the effects of traumatic events could be moderated either to prevent the development of the detrimental consequences on mental health such as PTSD and related disorders, or to enhance victims' abilities to heal of these disorders.

Foa, Keane, and Friedman (2000) published an edited book comprising reviews and guidelines for 12 treatment approaches for PTSD. These treatments were psychological debriefing, cognitive behavioural therapy (CBT), Eye movement desensitization and reprocessing (EMDR), group therapy, psychodynamic therapy, inpatient treatment, psychosocial rehabilitation, hypnosis, marital and family therapy, and creative therapy.

Rose and Bisson (1998) reviewed 6 randomised controlled trial (RCT) studies which aimed to examine the effectiveness of individual psychological debriefing for reduction of psychiatric symptoms. The participants in these studies were victims of traumatic events such as motor vehicle accidents, injury, assault, or miscarriage.

In terms of the time interval between trauma and intervention, it ranged from 12 hours to 19 days. Sizes of samples were between 30-130 participants. The

results of two of them showed a positive outcome, two demonstrated no difference, and the rest showed some negative outcomes after intervention. With regard to psychological debriefing, most of the evidence does not support its effectiveness in preventing the onset of PTSD or make any differences in long–term adjustment. It is mostly not recommended (N. Hunt, 2002; Ormerod, 2002; S. Rose, Bisson, Churchill, & Wessely, 2002). In contrast, NICE (2005) recommends trauma-focused cognitive behavioural therapy (CBT) or eye movement desensitisation and reprocessing (EMDR) for people who suffer from PTSD.

Holly et al.(2008) conducted a systematic review to evaluate the effectiveness of intervention in reducing psychological harm from traumatic events among children and adolescents who were exposed to various traumatic events. It should be noted that all studies were conducted in high-income countries. Participants were age up to 21 years of age. The results strongly supported that psychological harm (e.g. PTSD) among traumatised children and adolescents can be reduced by individual and group cognitive –behavioural therapy. In contrast, there is no strong evidence with respect to the effectiveness of many other interventions such as play therapy, art therapy, pharmacologic therapy, psychodynamic therapy, or psychological debriefing.

One of the types of intervention that have been examined is eye movement desensitization and reprocessing (EMDR). Scheck, Schaeffer, and Gillette (1998) examined the effectiveness of EMDR compared with active listening in 60 traumatized women between the age of 16-25 years. These women were victims of various traumas and more than half of these were traumatic sexual

experiences, such as rape or child molestation. Both groups significantly improved and the effects of EMDR were higher.

Lubin, Loris, Burt, and Johnson (1998) evaluated the effectiveness of Interactive Psychoeducational Group Therapy as a reducer of primary PTSD symptoms. They recruited 29 women who were exposed to multiple traumas such as violence crimes and sexual assaults. Interactive Psychoeducational Group Therapy was a 16-week trauma-focused, cognitive-behavioural group therapy. Four assessments were made by using self-report and structured interview measures of PTSD and psychiatric symptoms. These assessments were before treatment, at 1 month during treatment, at the end of treatment, and after 6 months. The results showed that there was a clear decrease in symptoms of PTSD and depression at termination of treatment. This decrease was noticed at 6-month follow-up. None of the studies used a control group making the results limited.

It has been mentioned that psychological debriefing had no significant effect on reducing the aftermath of trauma. Sijbrandij, Olff, Reitsma, Carlier, and Gersons (2006) examined the extent to which emotional ventilation debriefing and educational debriefing is effective. Two hundred and thirty six adult victims with recent traumatic experiences were randomised into three groups; emotional ventilation debriefing, educational debriefing, and no debriefing (control). Follow up was at 2 weeks, 6 weeks and 6 months. There was a decrease in psychiatric symptoms over time in all three groups; however, the differences among the groups were not significant.

In terms of the role of intervention in preventing the development of PTSD, 90 patients who met the diagnostic criteria for acute stress disorder (ASD) were

studied to examine the efficacy of exposure therapy or trauma-focused cognitive restructuring in preventing chronic PTSD. There was a greater reduction in subsequent PTSD symptoms in patients with ASD as a result of using exposure-based therapy compared with cognitive restructuring (Richard A Bryant, et al., 2008).

Similarly, Stein, Jaycox, Kataoka, et al. (2003) found that symptoms of PTSD decreased significantly in those within the CBT group after 3 months compared with the nonintervention group. On the other hand, the efficacy of brief CBT on acute PTSD has been examined. The sample was 143 patients aged over 18 years. They were civilian trauma survivors and met the criteria for diagnosis of acute PTSD. Seventy nine of them were in a brief cognitive behavioural therapy group and 64 were in a waiting list group. The results reflected reduction in symptoms of PTSD, anxiety, and depression in both groups over time. In spite of symptoms, PTSD in the CBT group was significantly less than the control group after one week. These differences approximately disappeared four months after the intervention (M. Sijbrandij, et al., 2007).

The authors presented three explanations for this result. The first was that the number of treatment sessions was less than other effective treatments. The second was the timing for inclusion of patients was between 1 to 3 months after trauma, while in other studies was in the first month. Third, they thought that CBT may be effective in patients with initial high distress. It does not seem that the third explanation is suitable because the improvement in high distress may be due to statistical regression rather than to the efficacy of treatment.

Due to attitudes towards psychotherapy, some of those who really need to be treated psychologically do not seek treatment. With this respect, Weisæth

(2001) noticed that many people who experienced a traumatic event and suffer from PTSD never look for treatment. The withdrawing from therapy also is noticeable. Recently, a mental health survey in Iraq revealed that only 2.2% of those who suffer from mental disorders reported receiving treatment because of the shortage in the providers of mental health care and the reluctance of people to look for treatment due to considering psychological therapy as a stigma (Alhasnawi, et al., 2009).

Thus, Ruzek (2001) thinks that providing trauma survivors with information in an educational frame can be useful because they are relatively brief, nonstigmatizing, and a low-cost form of care. Moreover, this information may help traumatised people to have a psychological map to grasp their reactions to the aftermath of trauma; thereby establishing a series of self-regulatory processes (Bisson, McFarlane, & Rose, 2000).

In the same way, the effectiveness of psychoeducation interventions which included problem-solving, medication for PTSD and coping with an earthquake trauma was examined. The sample was 51 survivors of the Marmara Earthquake who were diagnosed as PTSD patients. They are assigned to three intervention groups; which were psychoeducation only (PE), medication only (M), and psychoeducation and medication (PEM). The three intervention groups showed, according to post test scores, significant decline in PTSD and depression, and increase problem-solving scores of the participants in the PEM group. There were significant differences in post test scores for PTSD, depression, and problem-solving between PEM and M. Furthermore, these scores were clearly higher in M for PTSD and depression and lower for problem-solving. Although, the coping strategies in the PE group were not

significantly affected, the PEM and M interventions caused a decrease in avoidance scores. The social support-seeking scores raised in the M group (Oflaz, Hatipo Flu , & Aydin, 2008). Although the number of participants was small, these results suggested that PE served as a support source where the participants in M group showed more looking for social support than others.

Many people exposed to traumatic events may not develop psychological symptoms which require treatment. With regard to this, O'Donnell, Bryant, Creamer, and Carty (2008) suggest that the intervention should not be offered to all the injury survivors. Instead, it is offered to those who probably develop PTSD in the future. Thus, they consider screening for those who are vulnerable is the key of early intervention. Consequently, they suggest three steps for an early intervention model; including screening for vulnerability, a follow-up screen for persistent symptoms, and, finally, early intervention. Their viewpoint is based on a review of a number of studies dealing with early intervention.

1.9 SELF-HELP INTERVENTION

Although there is increasing evidence that professional therapies that are delivered by psychiatrists or therapists have effective impacts in treating mental disorders, they do not seem readily available to Iraqi people. As stated earlier, there are dramatic shortages in human resources including psychiatrists and psychologists, a bad stigma against psychotherapy, a lack of governmental institutions offering mental health care, and the cost and duration of therapy. Hence, another intervention technique is strongly required for Iraqi people. Self-help materials are one option.

The self-help materials are low costing compared to professional therapy, accessible as they can be read whenever and wherever, and a private way to deal with their problems (Bergsma, 2008). Bergsma (2008) concluded that people with a specific problem could benefit from reading problem-focused self-help books. Similarly, Litz, Williams, Wang, Bryant, and Engel (2004) concluded after examining a therapist-assisted internet self-help programme for traumatic stress that this kind of intervention can present mental health care and gain reasonable clinical benefits for many traumatised people in need of treatment when professional therapy is not available or cost-effective.

A recent study was conducted to examine the effectiveness of augmenting self-help materials with implementation intentions on anxiety symptoms (Varley, Webb, & Sheeran, 2011). They compared these materials with standard self-help and nonintervention groups. The results showed that participants who used augmenting self-help materials for eight weeks significantly reported fewer anxiety symptoms than other groups. However, a systematic review examined 13 studies of CBT-based guided self-help interventions for anxiety and depression and found no conclusive evidence about their effectiveness. They argued that the studies that showed the effectiveness of these interventions were of poor quality. Nevertheless, a deep examination of the results revealed that two of 13 studies that had quality 6/10 showed significant impacts and three studies that had quality 7/10 showed no significant difference compared to GP care. In addition, this systematic review did not report any potential harm of self-help materials.

To assess the effectiveness of self-help treatments, Scogin, Bynum, Stephens, and Calhoon (1990) conducted a meta-analytic review of 40 studies of self-

help treatment programs. The studies were categorized in 5 groups according to the target problems: 1) habit control such as smoking, nail-biting, alcohol consumption, and weight control, 2) depression and anxiety, 3) skill training, including parent training and study skills, 4) phobias, and 5) others, such as the problems that did not fit in the four groups; for example sex, sleep, and memory.

The eligible studies for this review were full self-administered or self-administered plus minimal contact such as weekly phone calls. The results revealed a significant effectiveness of self-administered treatment and minimal contact programs that were certainly better than no treatment. The studies of self-administered treatments that dealt with skill training showed a higher effect than those that dealt with depression and anxiety. Of the 40 studies, not one targeted post traumatic stress symptoms; though, there was a reasonable effect size regarding depression and anxiety. Furthermore, the effect sizes of studies that targeted training skills were even higher than self-administered plus minimal contact.

As long as self-help books have significant effects on training skills, then it could be expected that self-help books could be used to develop coping skills with traumatic events, as these books could provide training to develop coping skills that can lead to decreased PTSD symptoms.

Fourteen studies of self-help treatments which targeted patients (not mild cases) with emotional disorders such as depression and/or anxiety were reviewed. It was found that the average effect sizes of self-help treatments compared to the waiting list or placebo group was 0.84 and -0.03 compared to professional therapy in a relatively short period, which

means that the self-help treatments could have a similar effect (Den Boer, Wiersma, & Van Den Bosch, 2004).

In the same way, Marrs (1995) conducted a meta-analysis to examine the effectiveness of bibliotherapy in 70 studies. They were compared to control groups and therapist-administered treatments. The meta-analysis showed that the average estimated effect sizes were 0.565. There was also no significant difference between both types of treatment.

Najavits (1993) conducted a phone survey to examine the utilization of self-help materials during the past year, their purposes, and their benefits and harms. Seventy six people agreed to participate. With regard to using the self-help materials, it was found that 25 (33%) of them reported using self-help materials (12 using print materials; 13 electronic). Print media had more positive effects than electronic media according to different measures. These measurements were providing more help to self, the help was persistent, the sought advice, and information. The results show that a written guide could be more useful than other types, such as websites. This may be due to their accessibility and/or people have more confidence in written materials than other types as the author of a book is clearly stated with their professional and scientific background. Though, the small size of the sample and its selection procedures may limit the generalization about the public utilization of self-help materials.

Regarding the concerns about self-help books, Rosen (1987) demonstrated that self-help books may fail to treat what it claims to treatment and, therefore, “there are risks of negative self-attributions, of anger towards self or others, and of reduced beliefs in the efficacy of today’s therapeutic techniques” (p46).

He attributed the potential failure of most self-help books to having no reliable tools of diagnosis, and/or no provisions for follow-up. In addition, self-help books may be applied inappropriately due to misunderstanding instructions which lead to failure in following them, and consequently to fail treatment.

This concern seems reasonable especially in the case of books developed without clinical experience or knowledge and not being based on a theoretical framework. Rosen (1987) claimed also that self-help programme will be helpful only when completed and he cited the study by Glasgow and Rosen (1978) which found that only 50% of participants completed their self-help programme. He did not indicate how the programme was effective for those who completed their programme, and even in professional therapy there is no guarantee that a patient would attend all planned sessions.

Recently, the effectiveness of self-help interventions for individuals with anxiety problems was evaluated through 33 studies included in a meta-analysis (Hirai & Clum, 2006). The studies used varied self-help materials such as books, audiotapes, videotapes, computer or internet-based programs. The control groups in these studies were no treatment or waiting list, placebo, or individual or group treatment control. Numbers of participants in these studies ranged from 13 to 176. The target problems were social anxiety, specific phobias, panic disorder, and only one study targeted PTSD. The duration of self-help treatment ranged from 1 day to 25.8 weeks with an average of 6.2 weeks. The results showed that there was no significant difference in dropout rates during interventions between self-help treatment groups (12.3%) and therapist-directed interventions (9.4%). It was found also that self-help treatments had moderate effects for both

diagnosed and undiagnosed anxiety problems compared to control groups. These results do not seem support Rosen's (1987) conclusions regarding self-help treatments as low dropout rates were shown. They also generally met their appeals especially when they were compared to waiting list, placebo, or no treatment options.

To assess the effectiveness of a self-help booklet (SHB) against cognitive therapy (CT) and repeated measures (RM), Ehlers, et al. (2003) recruited 85 patients who experienced vehicle motor accidents and met PTSD criteria diagnosis. The participants were randomly assigned to three groups; CT (n=28), SHB (28), and RM (n=29). The results showed that CT was effective to treat PTSD while SHB and RM were not effective. Although the patients in SHB group did not recover perfectly, the results demonstrated significant decline in PTSD symptoms over time as measured by multivariate repeated measures analysis of variance after 3 and 9 months ($p<0.05$).

In the same way, Turpin, Downs, and Mason (2005) evaluated the effectiveness of providing self-help information following acute traumatic injury. They used an 8 pages self-help booklet which contained information about common physiological and psychological reactions, advice of non-avoidance and emotional support, and contact information for further help. The participants were victims of road traffic accidents, occupational injury, or assault. Their results did not support this intervention's effectiveness; however, the participants in the intervention group reported that the booklet was useful.

Hence, providing only information about the common reactions may gain the normalisation purpose but may not help patients to learn how to deal with their feelings of distress. Therefore, these results may suggest that a self-help book

should include techniques to develop positive coping skills to able traumatised people to deal with consequences of traumatic experiences.

In conclusion, although self-help materials are not as effective as professional therapy, they can be a useful tool for traumatised people especially when the mental health care is either unavailable or difficult to reach. It can be also serve as an adjunct treatment in the presence of professional therapy.

1.10 A THEORETICAL PATH OF THE ROLE OF THE SELF-HELP GUIDE IN REDUCING PTSD SYMPTOMS

The literature review has already stated a significant link between coping strategies, posttraumatic cognitions, social support, and the development of PTSD.

In this study, it is hypothesised that a self-help guide could help traumatised people to be more in control and enhance self-competence, thereby effectively dealing with their traumatic experiences and, therefore, overcoming their trauma-related symptoms. Figure 1-1 presents a model of risk factors of PTSD and the effects of a self-help guide.

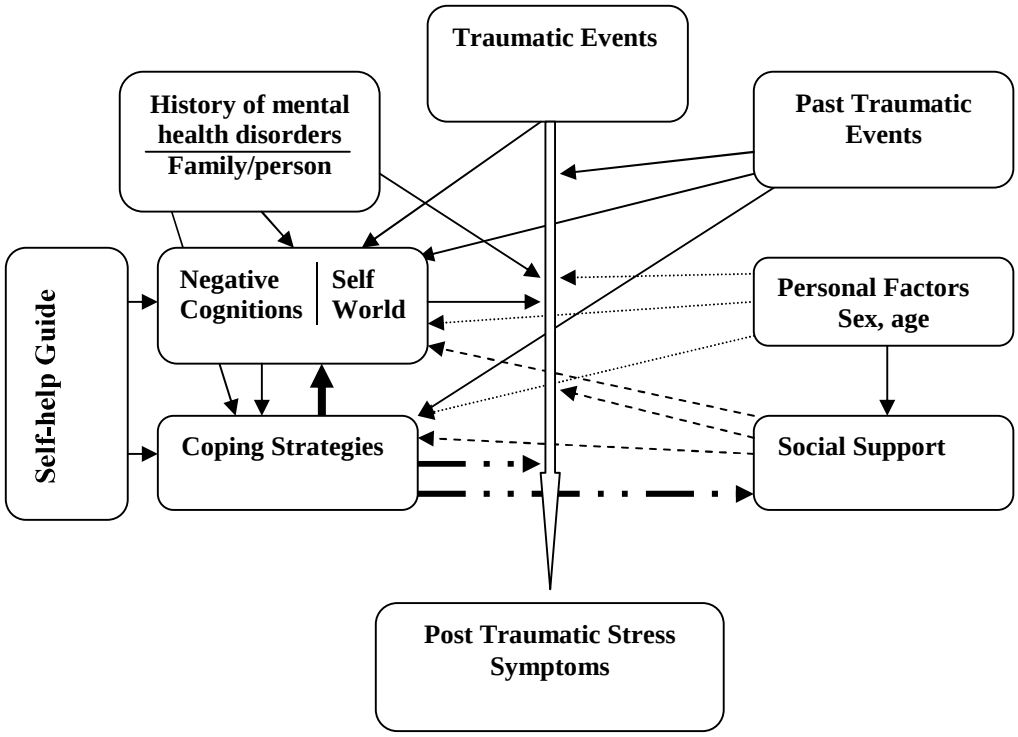

Figure 1-1: A Model of Risk Factors of PTSD and the effects of a Self-Help Guide.

The literature review shows that there are risk factors of PTSD. In addition to a traumatic event as a first criterion of PTSD, other variables were found as predictors of the onset and development of PTSD. The number of experienced incident is associated with the severity of PTSD (e.g. E. B. Carlson & Rosser-Hogan, 1991; Cheung, 1994; Jonathan R. T. Davidson, et al., 2004; Follette, et al., 1996; Patrick Smith, et al., 2002; Wyshak, 1994).

A previous trauma history could relate to the onset of PTSD (e.g. Naomi Breslau, Chilcoat, et al., 1999; Maercker, et al., 2004). Janoff-Bulman (1992) suggested that a prior trauma history could be a risk factor when the victim has not re-established a secure and stable inner world. Furthermore, sex (female), age (younger people), and family and/or personal history of mental health

disorders were found as risk factors for PTSD (C. R. Brewin, et al., 2000; Galea, et al., 2005; Ozer, et al., 2003; Yehuda & McFarlane, 1995).

In terms of coping strategies, it was generally found that problem-focused coping was correlated with a low level of PTSD, while emotional-focused coping was correlated with a high level of PTSD (Aldwin & Revenson, 1987; Eaton & Bradley, 2008; LeBlanc, et al., 2008). With respect to posttraumatic cognitions, significant correlations between these cognitions and PTSD were found (Bennett, et al., 2009; Lommen, et al., 2009). Specifically, negative cognitions about self but not about the world were a predictor of the severity of PTSD (Karl, et al., 2009; Lommen, et al., 2009; O'Donnell, et al., 2007).

Social support associates with PTSD and high levels of social support were correlated with low levels of PTSD (Declercq & Palmans, 2006; Galea, et al., 2005). Positive responses from significant others were related with decreases in PTSD (Guay, et al., 2006).

To illustrate how the guide could facilitate developing and/or enhancing effective coping skills, the principles and resources of coping are discussed. Lazarus (1998) suggested three principles to viewing coping as a process, as reflected in his definition of coping. Coping consists of cognitive and behavioural efforts to deal with a stressful situation. These efforts, secondly, constantly change and they should be evaluated as independent of their outcomes. The constant change that characterises the process of coping is not random and it is a reflection of continuous appraisals and reappraisals of the changing relationship between the person and their environment (Lazarus & Folkman, 1984).

According to Lazarus and Folkman (1984), there is a number of coping resources. These include health and energy, positive beliefs, problem-solving, social skills, social support, and material resources. Lazarus and Folkman illustrate that people feel easier to cope when they feeling well than feeling not. Positive beliefs comprised general and specific beliefs that can be a basis of hope. Hope can sustain coping efforts in dealing with stressful conditions. Hope can be associated with a sense of control, a belief that a particular person (e.g., therapist) or programme (e.g. treatment) is helpful.

Seeking for information, identifying the problem, generating alternatives, weighing the alternatives, and selecting an appropriate plan of action are included in problem-solving skills. Social skills include abilities to communicate with others and behave in social contexts effectively. These skills can enhance problem-solving skills in conjunction with others.

Social support that refers to receiving emotional, informational, and/or tangible support from other people as well as material resources (receiving money, goods, or services) are also coping resources. Moos and Schaefer (1993) highlight the essential role of social context in selecting an active coping process.

They mention that people who receive more social support, especially from family and/or friends, are more likely to make positive reappraisal and seeking information, and less likely to use avoidance and emotional discharge.

Albee (1982) suggests that interventions can be directed to a stressful event or to the factors, such as personal coping resources and processes, to strengthen

the individual resistance. It was stated that these ideas highlight implications for interventions that aimed to develop coping skills (Moos & Schaefer, 1993).

As was stated earlier (see page 22), the appraisal means that the person assesses whether the experienced situation is stressful, and then assesses their coping resources and options. The choice of coping type is based on the extent the event is under control. Recognising the controllability of the event may be affected by the skills and knowledge that person possesses. For example, a person who has avoidance symptoms following a traumatic experience may be able to deal with these symptoms if they have proper information about traumatic events and their aftermaths and effective coping skills. In this manner, the guide could help people develop such skills and have proper information about traumatic experiences, especially for the significant percent of people who think that mental health symptoms are due to personal weakness.

The guide could help improve coping resources. For example, the techniques to overcome trauma-related symptoms may improve problem-solving skills. Having these skills, as well as proper information about traumatic stress, could relate to more feelings of control and that maybe reflected in more positive beliefs which could maintain coping efforts in dealing with stressful situations. In addition, if people belief that the guide can be helpful for them, this also develops positive beliefs. Having these problems-solving skills, as well as positive beliefs, could make people healthier and provide energy to deal with future events. It is suggested that helping traumatised people to gain control over future incidents might be very useful (S Joseph, 1999). Consequently, the guide could enhance coping via improving its sources.

In conjunction, having effective coping skills, as well as information about the normality of symptoms experienced following an incident, could help disconfirming the negative cognitions about self, which emerged in the aftermath of a traumatic event. Disconfirming the negative cognitions about self can enhance self-competence. This self-competence can make people much more able to encounter traumatic experiences with active coping rather than avoidant coping.

1.11 IRAQI STUDIES

Studies that were conducted with Iraqi participants either inside or outside Iraq and which aimed to examine traumatic events, their aftermaths, and interventions are included in this review. The first such study was conducted in 1990. Therefore, the current review was conducted from the period between 1990 and 2011. Medline, PsychINFO, and ScienceDirect were searched. In addition to this, as many Iraqi journals are only paper based, and not necessarily available through internet search engines, the search was also conducted on studies that were published in Baghdad and available in the University libraries by physically searching in the libraries' catalogues. More than 50 Iraqi researchers and students were contacted regarding studies they may have conducted. They were contacted either via meetings held in Baghdad in April 2008, December 2009, and April 2010 or by email or telephone. Forty one studies were included on conditions that they were conducted with Iraqi participants and targeted traumatic events, their aftermaths, or interventions for trauma-related symptoms.

1.11.1 Main Findings

1.11.1.1 Prisoners of war

The first PTSD studies were done in Iraq to examine the effects of the captivity of Iraqi ex-prisoners of the Iraqi-Iranian war which lasted from 1980 to 1988. Hassan (1991) conducted a study in Baghdad aiming to explore the incidence of PTSD among Iraqi ex-prisoners of the Iraqi-Iranian war. The sample included 807 ex-prisoners, who were interviewed. They had returned home after an average of 97.7 months of captivity. The results indicated that 32.3% were suffering from PTSD.

To determine the types of PTSD among ex-prisoners of the Iraqi-Iranian war, N. Al-Kubaisy (1998) constructed a diagnostic scale for patients with PTSD and identified the symptoms of the disorder and explored the significant differences according to sex and age. The sample included 150 individuals of both sexes aged between 19-59 years. Of those 150 individuals, 82 were Iraqi ex-prisoners and 68 were civilians. An adapted measure was based on the DSM-IV and other measures such as the CAPS-2. The results showed that 53% of participants suffered from acute PTSD, 47.7% suffered from chronic PTSD and 2% suffered from delayed PTSD. In terms of the intensity of the disorder, it was found that 22.6% suffered from mild disorder, while 43.7% had severe disorder.

Captivity can lead to different psychological consequences as well as PTSD. Hence, Al-Samurai (1994) aimed to identify the prevalence of mental disorders during the first days of their return and explore the relationship between social and demographic variables and the disorders. A sample of 106 prisoners was

selected during the first week of their return home in August 1990. Their ages ranged between 27 and 45-years, with an average of 35.67 years.

Their psychological state was evaluated through a careful psychiatric examination. A diagnostic checklist of psychological disorders based on the Tenth International Classification of Diseases (ICD-10) was used. Another aspect of the examination was taking patients' histories. The investigation showed that 46.2% of the prisoners were suffering one or more mental disorders, including disorders of depression and anxiety, and schizophrenia.

The most common disorder was depression (41.5%), with varying degrees of intensity. Anxiety disorder, both generalised and panic disorder, was less common showing in only 3.8% of patients. Only one patient suffered from paranoid schizophrenia disorder. Finally, PTSD was diagnosed in 41 (38.7%) prisoners.

To measure the psychological adjustment of Iraqi ex-prisoners and to identify the difference in the psychological adjustment according to a number of demographic variables, Fahmi(1996) studied a sample of 720 ex-prisoners of the Iraqi-Iranian war. Psychological adjustment was measured by using a self-report scale. Five years after their return, they showed maladjustment due to the intense stressors that they experienced during their period incaptivity.

1.11.1.2 Children of Al-Ameriya Shelter

One of the most extreme traumatic events which targeted the civilians in Iraq was the bombardment of Al-Ameriya Shelter in Baghdad city, which occurred during the 1st Gulf War. Alatrany (1995) reported that on the night of the 13th of February 1991, the United States of America bombed the shelter. On that

night the shelter was inhabited by civilian men, women and children. The shelter was destroyed by two specially designed rockets. As a result, 403 people were killed; among them 52 children, 261 women and 90 men. Most of them were elderly men and only 14 survived. The event was extremely traumatic because there were families totally destroyed under the wreckage of the shelter.

Alatrany's study aimed to identify the incidence of PTSD in 150 students whose relatives and friends were the victims. Those students witnessed both the dead and burned bodies of their relatives and friends being removed from the bombed shelter. In addition, a non exposure sample of 150 students was selected as a comparative group. The PTSD scale constructed was based on DSM-III-R. The results showed that the average incidence of PTSD among relatives and friends of the victims were 37% while the average incidence for the non exposed sample was only 5% of the non exposed sample.

According to the degree of kinship, the prevalence average among those who had lost members of their families and relatives was 65% versus 19% of those who lost their friends. In terms of sex, it was found that the prevalence average in boys was 19% compared with 84% of girls. This large difference between boys and girls may be due to a socialization process where the community puts restrictions on boys to expressing their sufferings as this could be consider as weakness. In contrast, it is considered normal to women to talk about their upsetting feelings.

Following the effect of the bombing of Al-Ameriya Shelter, Dyregrov, Gjestad, and Raundalen (2002) interviewed a group of 94 participants in Iraq at 6 months, 1 year, and 2 years after the war. The group was children whose

family members and friends were killed in the bombing of Al-Ameriya shelter. Selected items from different inventories, including the Impact of Event Scale (IES) assessed the children's reactions. The results revealed that all children continued to experience sadness and remained afraid of losing other members of their family. Although there was no significant decline in intrusive and avoidance reactions as measured by the IES from 6 months to 1 year following the war, reactions were reduced at 2 years after the war. However, the scores were still high indicating that symptoms persisted with somewhat diminished intensity over time.

1.11.1.3 Children from Iraqi Kurdistan

Ahmad, Sofi, Sundelin-Wahlsten, and von Knorring (2000) aimed to explore the effects of exposure to attacks by chemical weapons, destruction of their properties, arresting, and captivity. He studied 45 families from the Iraqi Kurdistan region. The participants were randomly selected of those were exposed to these incidents. The sample included 45 children (21 girls, 24 boys) and 45 caregivers (23 women and 22 men).

The most hurtful experiences during captivity were father's disappearing (44% female, 29% male) and mother's being hurt (38% female, 29% male) for children, while torture (39% women, 0% men) and brainwashing (35% women, 25% men) were the most hurtful experiences for caregivers. There were also 22% of women who were exposed to rape or sexual abuse and 25% of men who were close to death. This high percent of raped women maybe because the recruited women were forced to leave their homes and live in displacement

camps and this kind of living condition may increase the likelihood of exposure to rape.

With regard to PTSD, it was found that children had higher PTSD percentages than their caregivers; 87% vs 60%. There was no significant difference between girls and boys in PTSD scores, while the oldest children reported high PTSD. In contrast, it was noted that women had higher PTSD scores than men.

Similarly, frequencies of traumatic experiences and PTSD scores was assessed in two samples of the general population of Iraqi Kurdish children, aged 6-18. They were 201 from Duhok city in Iraqi Kurdistan and 111 from Uppsala City in Sweden. The level of trauma was clearly high in children of Duhok compared with Uppsala. Rates of PTSD that were reported by children of Duhok city were clearly higher than that reported by the Uppsala sample, and its rates in girls were significantly higher than boys in Duhok sample (Ahmad, Knorring, & Sundelin-Wahlsten, 2008).

Further studies have been conducted in Kurdistan, Ahmad et al. (2005) followed up a sample of 142 orphans; 94 of them were in the traditional foster care and 48 were in the orphanages. The results revealed that although PTSD scores had decreased for the two groups, the improvement for those were in the traditional foster care was clearly better.

In addition, Ahmad (2008) recruited Iraqi children in Kurdistan and aimed to discover a posttraumatic stress disorder profile for a child behaviour checklist. They were 871 children (461 girls and 410 boys), from “the general population, the orphan care system, a primary medical care centre and the only hospital in the city of Duhok in the Kurdistan region of Iraq” (884). By using

posttraumatic stress symptom scales for children, it was found that 270 children (33.5%) met criteria for a stress diagnosis.

1.11.1.4 Iraqi children after 2003

Screening for the prevalence of traumatic stress and their psychological consequences after the change in 2003 in Iraq was the main aim of few studies. To examine the prevalence of PTSD in children, Ghalib (2004) measured PTSD symptoms in children who have been exposed to the trauma of war. The sample was 70 female students and male students whose ages ranged from 10 to 12 years. They were residents in Sadr City which was targeted by air attacks during the 2003 war. The results showed that there were significant differences in PTSD symptoms between females and males; females were higher. However, there were no statistically significant differences according to age. Furthermore, Al-Mashat, Amundson, Buchanan, and Westwood (2006) interviewed twelve Iraqi children, six of each sex, seven month after the official end to the 2003 war. All of them were exposed to missile bombardments and were near the fighting actions. They expressed feelings such as being uncertain about the future, increased fears, lack of security and having nightmares. They also felt as if they were going to die.

In 2006, with support of the Japanese Government, the WHO Iraq Office, and the Iraq National Mental Health Council of the Iraqi Ministry of Health, Razokhi, Taha, Taib, Sadik, and Gasseer (2006) conducted three studies to examine the prevalence rates of mental disorders in children in Baghdad, Mosul, and Dohuk. The results showed that 47% of 600 primary school

children in Baghdad reported that they have been exposed to at least one major traumatic event during the last two years and 14% of them had PTSD.

In Mosul's adolescents, the study found that 30% of 1090 participants had PTSD symptoms; the older adolescents showed a higher rate of PTSD. Only 8% of the traumatised adolescents had received treatment. For Dohuk city, mental disorders were assessed in 240 children (120 working street children, and 120 school children). The results showed that 36% and 16% of working street children and school children respectively had the highest rates of mental disorders. Generally, females had higher rates of mental health disorder symptoms than males.

To examine the effect of war on self-esteem, Carlton-Ford, Ender, and Tabatabai (2008) studied the correlation between threat and self-esteem. They collected data from 994 Iraqi adolescents, 70.5% male; 29.5 female, in Baghdad city during 2004. Their age ranged from 12 to 17 years. The participants were asked about their level of threat and self-esteem. The results revealed that the Iraqi adolescents reported high rates of self-esteem. On the other hand, they felt clearly threatened. They reported high levels of "national threat" and self-esteem at the same time; however, there was no significant correlation between "family threat" and self-esteem.

1.11.1.5 General population

Traumatic experiences after 2003 were researched in a number of studies. For example, Abdel-Hamid, Salim, AlQaisi, and Ahmad (2004) led a research team from the Psychological Research Centre at the University of Baghdad to explore the prevalence of PTSD among the adults in Baghdad City after the

change in 2003. The participants were 202 men and 200 women. The ages ranged between 18-70 years. The measurement tool was developed based on PTSD criteria in DSM-IV. The results showed that 35.27% of the sample of 402 people reported PTSD symptoms higher than the average and 18.66% around the average.

There was 12.43% suffering from acute PTSD while 3.98% was suffering from chronic PTSD. In addition, war stress was measured and 27.86% was higher than the average, 4.23% was around the average. At the same time, there was 6.97% suffering acutely and 16.6% chronically. With regard to sex, the females reported PTSD symptoms higher than males. It seems, according to the results, that age, degree of proximity, and social state are not effective variables of developing PTSD.

In parallel, N Al-Kubaisy and Alasdi (2004) aimed to estimate prevalence of PTSD symptoms and its types such as acute, chronic, and delayed. The participants were 300 females who were students in Women Education College at the University of Baghdad, ranging in age between 17-36 years and the age average was 20.64 years. The results showed that 187 (62%) of the participants experienced at least one traumatic event. 82% (155/187) of those who were exposed to traumatic events reported that they experienced PTSD symptoms; 118 of them met all criterions of PTSD and 37 met these criterions partially.

Another study was conducted to examine the frequencies of traumatic events and PTSD symptoms in the University of Baghdad population (N. Al-Kubaisy, Hassan, & Al-Kubaisy, 2009). Two hundred and eighty four (241 females, 43 males) participants were selected. The age ranged from 17 to 54 years. A self-reported PTSD scale was used.

The results showed that 196 (69%) of the participants experienced at least one incident. The most frequent traumatic events were sudden death of a family member (55%), bomb car and side bomb explosion (50%), watching someone being killed or injured (37%), and killing of a family member (33%). In addition, 13% of the participants reported experiencing multiple incidents. Furthermore, 33% had no access to mental health services. In terms of PTSD symptoms, 174 (61%) were found suffering from PTSD symptoms. In 196 (69%) of the participants, hyper arousal was the most prevalent symptoms followed by re-experience (65%) and avoidance symptoms (41%).

Between 2007 and 2008, a national survey of mental disorders was conducted in Iraq (Alhasnawi, et al., 2009). The participants were 4332 adults aged 18 or higher. The WHO Composite International Diagnostic interview (CIDI) was used to assess the disorders. Unlike most previous studies conducted in Iraq, the prevalence rate of PTSD was 2.5%. It seems that this is a questionable result especially it is not clear whether the data collectors were well trained and qualified for this kind of work. Moreover, the security situation during the period of study was very difficult to enter some areas of Baghdad which included in this study. In addition, the Arabic version of CIDI may be unsuitable for Iraqis in terms of wording. Moreover, measuring many mental disorders together instead of focusing on a specific disorder may decrease the sensitivity and specificity of scale.

1.11.1.6 PTSD and Refugees

As a result of extremely traumatic events, a significant proportion of Iraqis had to leave their country since the 1960s. This problem has been dramatically

increased since 2003. Some refugees reported a long history of incidents, including explosions, witnessing people being killed, seeing corpses, torture, loss of close friends and family, kidnapping, and death threats (Al Obaidi & Atallah, 2009). In one study, refugees showed clear PTSD symptoms and associated mental disorders, such as depression and anxiety (Gorst-Unsworth & Goldenberg, 1998).

It is not only the situation in Iraq that impacts on refugees' mental health but the long procedures used for asylum-seekers in different countries can lead to negative symptoms. High rates of PTSD, as well as depression and anxiety symptoms, were found among Iraqi refugees in the Netherlands (C. Laban, Gernaat, Komproe, van der Tweel, & De Jong, 2005; C. J. Laban, Gernaat, Komproe, Schreuders, & De Jong, 2004; C. J. Laban, Komproe, Gernaat, & Jong, 2008).

Unfortunately, they had not received appropriate treatment for their psychological problems; they were being treated by non specialists (C. J. Laban, Gernaat, Komproe, & Jong, 2007). Other studies conducted in Jordan, Egypt, and the USA have also shown that Iraqi refugees express high levels of distress and PSTD symptoms (Obaidi, 2010; Salem-Pickartz, 2009; Shoeb, Weinstein, & Mollica, 2007).

The problem has become worse since the high qualified people fled outside Iraq to save either their life and/or the life of their families. N. Al-Kubaisy and Al-Kubaisy (2010) examined the prevalence of traumatic events and PTSD symptoms among 60 Iraqi intellectual immigrants who were living in Jordan, Syria, and Gulf states.

All the participants reported that they had experienced at least one incident. Most traumatic experiences occurred after 2003. The most frequent incidents were death of a close person, witnessing detonated car bombs or other explosions, and threats to leave their homes. Multiple traumatic experiences were reported in 16% of them. Regarding PTSD symptoms, 85% of participants were suffering from PTSD in various levels of severity; 48% were mild, 21% were moderate, and 15% were severe.

1.11.2 PTSD, alcohol, and drug abuse

PTSD may correlate positively with alcohol and misuse of drugs. Alkrkhi (1994) aimed to reveal the incidences of PTSD in a sample of 300 adult patients chosen randomly from outpatient clinics. A semi-structured interview was developed based on the DSM-III. Forty five percent the participants were found to be suffering from PTSD. From those how suffered from PTSD, 16% tended to increase their consumption drinking of alcohol whereas 49% tended to misuse drugs. In the same way, T. Al-Kubaisy, Alkrkhi, Lafta, and Al-Kubaisy (1995) examined the prevalence of PTSD in a sample of 220 patients (190 men and 30 women) in outpatient mental health clinics. The results showed that 53.3% were injured by PTSD, 83% were in their thirties of age, were illiterate, and unemployed. This study showed that 45% of those who had PTSD were characterised by a tendency to increase drinking alcohol, and 46% of them using different sedative-hypnotic drugs.

1.11.3 PTSD following severe diseases

It is not only war and violence that may lead to PTSD, but also severe illness. With this respect, T. Al-Kubaisy and Al-Kubaisy (2002) assessed PTSD and Acute PTSD among an Iraqi sample of human immunodeficiency virus (HIV+ve) patients. A cross–sectional study included 16 HIV+ve patients (13 males, 15-49 year) recruited from Ibn Zuhr Hospital, using N. Al-Kubaisy (1998) PTSD Scale. The results showed that 10 (63%) had PTSD and 3(19%) had partial PTSD. Out of those 10, 7 (70%) had chronic PTSD, 2 (20%) with late PTSD, and only one with Acute PTSD. This highlights that PTSD in Iraq is a result of other problems as well as war and violence.

1.11.4 PTSD and other variables

In terms of the relationship between PTSD with other variables, Hassan (2005) examined the relationship between PTSD and self-control among 200 students from the University of Baghdad; 110 of them were males and the rest were females. The researcher used self-report scales to measure PTSD and self-control. It was found that 85.1% of the sample experienced simple PTSD and 14.9% experienced PTSD moderately. With regard to the types of PTSD, there was 58% suffering from acute PTSD, 11.3% with chronic, and 6.7% with delayed PTSD. There was a statistically significant negative relationship between PTSD and self-control with a correlation coefficient of -0.85.

Fulayyih (2004) endeavoured to examine the relationship between PTSD and aggression behaviour and the differences according to sex. The sample was 100 primary school pupils, ranging age between 11 and 13 years. A PTSD checklist (parents report) and an aggression scale were used. It was found that the

relationship between PTSD and aggression was significant. Most of the participants reported that they experienced PTSD symptoms and males were more symptomatic than females. This may be because females in this sample were still children and therefore they receive more protection support than males, or because that community allows, in the socialisation process, females but not to males to talk freely about their sufferings.

Due to the fact that PTSD may affect memory and concentration, Almaini (2004) supposed that there is a relationship between PTSD and school achievement. To test this hypothesis, the school achievement scores of 100 (44 males and 56 female) school pupils in class 6 were obtained from school records. PTSD was measured via a checklist (parents report). The correlation coefficient was -0.80 which reflects a negative relationship between PSTD and school achievement. This research explained that students with PTSD could suffer from a lack of concentration and memory impairment which negatively affects their school performance.

1.11.5 Interventions for PTSD

In respect of interventions for PTSD, only few studies have been conducted in Iraq. The first was to develop a psychological first aid programme (PFAP) to help reduce ASD. Ten female patients, age ranged from 23 to 54 years, were treated individually by PFAP. Every patient had 12 biweekly sessions for 45 minutes. It was approved that PFAP was effective in reducing the ASD symptoms significantly. The sample size may limit the potential generalization of its results (Natik Al-Kubaisy, 2004).

Salih (2008) examined the effect of rationale and emotional therapy and modelling therapy in moderating PTSD of pupils at an intermediate school. The sample was 36 pupils distributed randomly into three groups: two experimental groups and a control group. Each one consisted of 12 pupils. The counselling programme consisted of 18 sessions; two sessions a week. The results showed that both therapy forms were effective when compared with the control group. Though, the differences between both of forms were not significant.

Recently, Wagner, Schulz, and Knaevelsrud (2011) evaluated the efficacy of an internet-based intervention for PTSD in Iraq. The course treatment was an Arabic version of a therapist-supported cognitive-behavioural treatment. They recruited 212 persons by means of radio, TV, and newspaper publicity. Those participants completed online screening scales, 40 of them were included but only 15 finished the course treatment. The treatment provided by native-Arabic-speaking psychotherapists or psychiatrists living either in Iraq or other countries, such as Palestine, Syria, The UAE or in Europe. The results showed significant reductions in PTSD symptoms both in total and by clusters. Moreover, symptoms of depression and anxiety also decreased after treatment. This can be a good contribution in providing psychotherapy for traumatised people in Iraq. However, the sample size may limit the results. The information provided may need to be adapted to the situation in Iraq. In terms of implications, the lack of well trained therapists to treat PTSD, the lack of electricity supply, the familiarity and ability of using the internet, as well as access to the internet may make this type of treatment less applicable in the present time in Iraq.

1.12 DISCUSSION

The literature review shows that many people experience events that may lead to fear, horror, and/or helplessness. These traumatic events are divided into main two sources; natural disasters and man-made disasters. The natural disasters contain, for example, earthquake, and floods whereas man-made disasters include war, violence, and rape.

In addition, the previous literature shows that exposure to traumatic events has varying effects on mental health. The most common mental disorders after incidents are anxiety disorders such as ASD and PTSD, as well as related disorders such as depression and anxiety. Moreover, post trauma symptoms may last for less than a month; in this case it is called ASD, but if the symptoms last more than one month then form PTSD. However, the nonappearance of symptoms does not necessarily mean that there is no disorder. In some cases, for example Vietnam veterans (Figley, 1978), the disorder symptoms appeared after numerous years of exposure to a trauma, and this is called delayed PTSD.

In terms of risk factors, the literature has highlighted that factors such as severity of trauma, multiple traumas, personal and family psychiatric history, trauma history, and type of trauma may play a predictive role in the development of PTSD. In addition, although most of the studies noticed that males reported more exposure to traumatic events than females, females showed more PTSD symptoms than males.

The development of PTSD could be moderated by coping and social support. With regard to coping, its role in the reduction of PTSD symptoms depends on

its different strategies. Most of the studies found that problem-focused coping has a clear positive impact on the moderation of PTSD development. In contrast, emotional-focused coping generally had no constant effect on distress that rose as a result to experiencing a traumatic event.

PTC has been found as a risk factor of PTSD. Moreover, it was found that PTSD symptoms are a result of traumatic experiences that lead to confirming negative cognitions about self and the world or disconfirming positive cognitions. Therefore, an effective intervention programme should aim to prevent this confirmation or disconfirmation.

Additionally, literature revealed that social support could effectively prevent the development of PTSD. The main sources of social support are family and friends. However, its effectiveness may relate to individual's attitudes towards the usefulness of social support and the nature of social reactions.

With regard to intervention, there is significant evidence supporting the effectiveness of cognitive-behavioural therapy, exposure therapy, and psycho-education in the reduction and prevention of PTSD.

It seems that the situation in Iraq is clearly different; not for cultural reasons but also for the unique condition of traumatic exposure. Although some of studies were conducted in conflict areas, Algeria, Cambodia, Ethiopia, and Gaza, these studies were during a period of relative security stability. In Iraq, the incidents are continuous and complex. However, a small number of studies were carried out to compare repeated and continues events. It seems that these studies dealt with victims as survivors and the event as a finished incident, but that may not be the real situation. For example, the first studies of PTSD in

Iraq were conducted with ex-prisoners of Iraq-Iran war, who were returned home at the end of 1990 after the Iraqi invasion of Kuwait. The economic sanctions imposed on Iraq in 1991 and the threat of war by the coalition forces is based due to the Iraqi invasion of Kuwait. In other words, the participants in these studies were survivors of captivity trauma but were also under effect of economic sanctions and the threat of war. Unfortunately, the studies may ignore the traumatic experiences which existed at the time of the study. In the same way, the studies that were carried out after 2003 also ignored the attachment events which occur during them.

A review of previous studies both conducted in Iraq and worldwide, confirms that studying the problem of traumatic events in Iraq and suggesting an appropriate method of intervention should take into account the following issues.

First, the Iraqi people are under stress of traumatic events for several decades including wars, oppression and death sentences, collective punishments, forced migration, economic sanctions, and the terrorist attacks since 2003 till now, and so forth.

Second, this chronological display of traumatic events in Iraq history shows that these events occurred on an ongoing basis and are interrelated, which means that individuals have been exposed to continuous and multi-events at the same time.

Third, the scarcity of coherent studies aimed to detect the prevalence of traumatic events, their effects and the development of appropriate treatment methods.

Fourth, the continued exposure to the incidents has driven and spread an atmosphere of fear and insecurity among the people and a constant sense of threat to their own lives, the lives of their close relatives and/or their physical integrity.

Fifth, the absence of symptoms at the time of detection does not necessarily mean it will not appear in the future.

Sixth, there is a clear shortage of available mental health services due to the forced displacement of mental health workers.

Seventh, the professional mental health services are very expensive and that may limit the number of people who look for treatment.

Eighth, understanding the role of cultural factors in the development of PTSD and coping requires studying these factors in populations which have been affected by similar traumatic events. This is necessary to confirm that the explored differences between them are due to cultural factors. It seems difficult to explore the particular role of these factors in the Iraqi case due to the unique nature of traumatic events which occurred. For example, people in Gaza exposed to military attacks from the Israeli army, but without the attendant forms of sectarian war; kidnapping and killing depending on the sectarian identity.

Ninth, although most of the previous studies confirm the link between PTSD and other disorders, such as depression and anxiety, this comorbidity has not received considerable attention from researchers in Iraq as yet.

Finally, unfortunately, not only have the psychological effects of such events not received sufficient attention in Iraq, but also interventions and treatment of

traumatised people have been neglected, both in research and in Iraqi mental health care purposes. For example, so far there is no centre of traumatic stress designed to provide services for traumatised people and to conduct research. Therefore, developing and testing an intervention program designed to develop and promote ways of coping with traumatic events could have an effective impact in preventing the development of trauma symptoms. This intervention should take into consideration the complex nature of the traumatic stress in Iraq; in terms of they are prolonged and repeated. In addition, this intervention should be accessible and low costing. Therefore, a self-help guide could be effective in helping traumatised people in Iraq to deal with and overcome their suffering.

1.13 RESEARCH QUESTIONS

Based on the review of the literature, a self-help guide could be an effective intervention for traumatised people in Iraq. In this study, it is hypothesized that the guide will reduce symptoms through developing effective coping strategies and will reduce the negative cognitions about self and the world. Providing information about traumatic events, their aftermaths, and how to deal with them can help people to understand their reactions. Therefore, they can have a self-plan to deal with these reactions. In addition, based on the research showing negative cognitions about self as a superior predictor of PTSD, the guide may help to prevent the development of such cognitions about self. This can be gained through two ways. Firstly, that the provided information can normalise reactions after trauma, and therefore prevent confirming the negative cognitions about self. A study found that most of the Iraqi participants think

that mental health symptoms are due to personal weakness (Sadik, et al., 2010). Secondly, the guide can help people to develop positive coping strategies. Consequently, these coping strategies could improve self-control and enhance the ability to confront traumatic stress. This self-competence will help traumatised people to effectively manage their traumatic experiences without resorting to avoidance.

1.14 THE STUDY AIMS

The study aimed to:

1. Develop a predictive model of PTSD.
2. Develop and validate self-report scales to measure trauma history screening, PTSD, coping strategies, posttraumatic cognitions, social support, depression and anxiety.
3. Examine the prevalence rate of PTSD, depression and anxiety using self-report scales.
4. Examine coping strategies, posttraumatic cognitions and social support.
5. Examine the developed model of PTSD.
6. Develop a self-help guide for the developed PTSD model.
7. Examine the effectiveness of the self-help guide.

2 Chapter 2: Methodology

2.1 OVERVIEW

The literature review shows that people in Iraq have been experiencing multiple traumatic events on ongoing basis. Although most traumatised people either do not develop trauma-related symptoms or recover on their own, others benefit from an intervention. There are a number of risk factors associated with the onset and development of PTSD, including trauma history, coping strategies, posttraumatic cognitions, and social support. It was also found that PTSD has comorbidity mainly with depression and anxiety.

The literature clearly shows that traumatised people in Iraq have not enough access, for several reasons, to the minimum level of mental health services. A self-help guide was suggested as a potential useful instrument to help people dealing with their traumatic experiences and overcome their sufferings. Therefore, this study was conducted to develop and examine the effectiveness of a self-help guide. The current study also aimed to develop and validate a number of self-report scales.

2.2 STUDY DESIGN

In addition to developing and assessing the effectiveness of a self-help guide, the study included developing and validating self-report scales, and collecting data about the prevalence rates of PTSD, and risk factors including trauma history, coping strategies, posttraumatic cognitions, and social support. The

prevalence rates of depression and anxiety were also assessed. Kazdin (2003) highlighted that self-report scales were used widely within counselling, clinical, educational psychology. He states that there are three reasons to use these kinds of scales. First, the definition of many states, feelings, and psychological problems is based on what people say or feel. Second, people are in a unique position to report upon their feelings, thoughts, dreams etc. This may be not available with other assessment techniques. Third, the administration is easy, and therefore this has made use of such scales particularly useful for screening purposes. In addition to these reasons, other reasons made use of self-report scales in the current study acceptable. First, one of the aims of the study was to examine the prevalence of traumatic events and trauma-related symptoms; therefore, selecting a large representative sample is essential to achieve this aim. Second and related, the time for data collection is limited due to the availability of students during the academic year as well as the travel arrangements to Iraq. Third, the participants of the current study were university students, which means they were well educated and perhaps more likely to have the ability to report their feelings and emotions more effectively than the general population. Fourth, some studies (e.g. Alhasnawi, et al., 2009; Sadik, et al., 2010) demonstrated that a significant percent of Iraqi people considers seeking therapy to be stigmatising; then it is expected that the participants may not prefer to talk about their feelings to the strangers. Consequently, self-report scales rather than other techniques (e.g. interview) were essential instruments to collect data for the reasons mentioned above. Although interviews may provide data in depth, Bordens and Abbott (2010) highlighted some limitations; the interview is taken place in a social context,

and this may impact on the participant's responses where the participants may tend to present socially desirable responses. In addition, in the current study, it was more difficult to do comparisons using interviews. Furthermore, it may be difficult to ensure the reliability of data that are collected by interviews (Abramson & Abramson, 2008). Moreover, as most of the participants in the current study were female, the likelihood of their participation in the study was low if the interview was used to collect data. For social and religious reasons, the women may not accept to be alone with a man to participate in a research. In contrast, a self-report scale could be an objective instrument to collect data and provides a numerical measure (Anastasi & Urbina, 1997) and could cover larger area of the examined concept than the interview could. Particularly in this study when the time available for the administration was limited. In addition, Lazarus and Folkman (1984) demonstrated that studies found that self-reported coping had a significant relationship with adaptation outcomes. Foa, Cashman, Jaycox, and Perry (1997) stated that the self-report measures are economic instruments, in terms of less administration time and minimum clinician time, to screen PTSD. Nevertheless, some limitations may relate to the use of self-report scales. Of these, first, the wording, format, and order of appearance of the items could affect the responses to them. A second limitation is the possibility of bias; where the participants might not truly respond or their responses being influenced by their motives or self-interest (Kazdin, 2003). In the current study, most of scales were widely used and validated in previous studies. In addition, the Arabic versions of them were presented to a group of psychologists and psychiatrists to assess the extent to which these scales were

appropriate to be used with Iraqi participants. Furthermore, the scales were validated as a part of these study procedures.

After validating the scales, a self-help guide was developed. To develop a suitable guide for traumatised people in Iraq, several issues were considered. The guide had to help people to understand traumatic events and their aftermaths, and also provide coping skills that focus on dealing with the problem rather than avoiding. Therefore, the developing process was based on literature about PTSD and coping. The literature review showed that PTSD symptom could be reduced using active coping strategies, improving the cognitions about self and the world and perceiving social support. In addition, self-help materials for trauma were reviewed. To find self-help books for trauma-related symptoms, these books were identified by review an article about self-help books (Redding, Herbert, Forman, & Gaudiano, 2008) and also by conducting an online search of number of websites including Books.google.com, Books4selfhelp.com, and the Internet book dealer Amazon.com. The search was conducted by using keywords, such as "recovery, overcome, healing, self-help, traumatic stress, posttraumatic stress, trauma, or PTSD". The inclusion criteria were the book did not target a specific trauma (e.g. rape) or a specific sex (e.g. for men or women) as the guide in this study aimed to deal with different traumas and for both sexes. In addition, the book should be written by people with professional or academic qualifications in health or clinical psychology or psychiatry.

Based on the literature review about PTSD and coping and a review of self-help books, a list of contents was suggested. In addition, real traumatic stories were collected via an internet-based questionnaire to be added to the guide as

examples. Iraqi psychiatrists and psychologists with experiences of treating and/or studying trauma were asked to evaluate the list of suggested contents of the guide and later the contents themselves. The psychiatrists were contacted via the Iraqi Mental health Forum in the UK. Psychologists were contacted via Educational studies and Psychological Research Centre in the University of Baghdad. The effectiveness of the guide was examined. The examination procedures involved presenting the guide to a group of Iraqi psychiatrists and psychologists to assess whether the guide's contents are based on psychological ground, useful and helpful to deal with traumatic experiences, and appropriate for traumatised people in Iraq.

Based on the literature review, it was hypothesised in this study that the guide will improve positive coping strategies and posttraumatic cognitions and therefore reduce the severity of trauma-related symptoms. Consequently, it required examining the causal relationship between the use of SHG and coping strategies, posttraumatic cognitions, and trauma-related symptoms to demonstrate the guide's effectiveness. Therefore, an experiment was conducted to examine the effectiveness of the guide. Originally, the design in this study was intended to be a mixed between-subjects and within subject design. The aim firstly was to examine whether there are significant differences between those who used the guide and those did not (between subjects). The second was to assess whether the differences are due to use of the guide and not to other variables (within subjects). The design had two groups; one experimental and one control. The suggested procedure comprised the following steps:

1- Conduct baseline tests for all participants with full PTSD.

2- Divide the participants randomly into two groups; treatment and control.

3- Use the guide for at least six weeks.

4- Conduct post tests for both groups.

5- Repeat the steps 3 and 4 but the group that already has used the guide does not use and vice versa.

Step 5 was excluded for practical reasons including travel delay to Baghdad due to suspending all flights from the UK for several days in April 2010 due to ash from a volcanic eruption in Iceland. Therefore, the time was not enough to follow all the steps. Therefore, the participants in the control group did not use the guide during the study. Hence, an ethical issue arose. These participants were told that hard copies of the guide will be available to collect with their lecturers after the post tests, or they can ask for an electronic copy via email.

The modified design was a between-subjects design. However, this design was still applicable for some reasons. Of these, first, traumatic events in Iraq have occurred on ongoing and multiple bases. Secondly, it is more economic in terms of time required to conduct the experiment compared with a within-subjects design; consequently, it reduces the likelihood of losing participants. Finally, it can control the effects of variables that may threat the internal validity of the experiment (e.g. history, statistical regression, and testing). It is worth stating that this experimental design was not a full randomised control trial (RCT). RCT has three main components including comparison between two or more of treatment conditions, a method of assigning participants to each group, and the assessment means of the

effectiveness (Everitt & Wessely, 2008). In the current study, due to the shortage of psychiatrists and the security situation in Baghdad, it was not possible recruiting a psychiatrist or clinical psychologist to conduct further diagnosis or assessment. Hence, it was unavoidable to rely on only self-report scales to conduct the baseline tests and post tests. In addition, the multiple-occurrence of traumatic events in Iraq may make people had different accounts of traumatic experiences. In addition, the participants had to use the guide at their homes. Therefore, the research could not be under the full control of the researcher. Nevertheless, to ensure that the guide was used regularly, the participants were continuously contacted either in person once a week by the four lecturers or via email.

Blaxter, Hughes, and Tight (2010) present several advantages of focus groups. Of these, focus groups may generate different and diverse views, some people feel safer and prefer to discuss issues within a group instead individually, and unexpected findings may be generated due to the way of discussion. Hence, two focus groups with groups of participants were conducted to discuss and assess the aspects of weakness and strength of the guide as this method could provide significant information to develop an effective guide. These focus groups provided qualitative data that could support the data of self-report scales. The participants in each focus group were of same sex (one for males and one for females), as they expressed that it will not be comfortable to them to participate in a mixed group. In addition, the participants did not agree to the use of any device to record the discussions; instead the discussions were written in a note form. The discussions were guided to be within two categories which were the strengths and weaknesses of the guide.

2.3 STUDY POPULATION

The participants were recruited from university students in Baghdad. There are four public universities in Baghdad. They are fully funded by the government and offer a wide range of courses. These universities are the University of Baghdad, Al-Mustansiryha University, Technology University, and Alnahrain University. Students typically enter the university at age 19 and graduate by age 24 years depending on the length of courses (e.g. medicine course last for six years). There were some reasons to select university students. First, according to Central Organization for Statistics and Information Technology in Iraq (2009), Iraqi people with an age range from 19 to 30 years forms about 30% of total population. University students are in this age range. Second, young people are more likely to experience PTSD symptoms (Alhasnawi, et al., 2009; Galea, et al., 2005). Third, due to the guide was being written; it required well educated people to understand it and follow its instructions. Exploring the efficacy of the guide in the current format may suggest producing new versions being for less educated people (e.g. video).

2.4 PARTICIPANTS

It was aimed to select a representative sample. The participants were recruited from the four universities. The selection was through four stages: 1) select one faculty from each university, 2) select one department from each faculty, 3) one group from each department, 4) all students in the group from all classes were asked to participate. The first three stages were via a simple random way.

Numbers were assigned to the faculties, departments, and groups. In each stage, the numbers were selected from a bag. The inclusion criteria were the participants being undergraduate student and permanent resident in Baghdad. In contrast, exclusion criteria were having history of mental disorders in the family or he/she has sought a psychological treatment. Therefore, participants who previously or currently receive psychotherapy were excluded as this may affect the relationship between using the guide and the expected changes in coping and PTSD. In addition, those who their permanent residences were outside Baghdad were excluded as well because Baghdad was targeted by more severe and several war- and violence-related actions than any other city in Iraq in 2003 war and thereafter.

For practical reasons including travel arrangements, the security situation in Baghdad, and the availability of students for a limited time during the academic year, data of same participants were used in the validation of scales and examine the prevalence rate of traumatic events, PTSD, depression, and anxiety symptoms as well as variables such as coping strategies, posttraumatic cognitions, and social support. In addition, the participants who fully met PTSD criteria based on the self-report scales' scores were asked to participate in the experiment to test the effectiveness of the self-help guide.

2.5 ETHICAL ISSUES

It was proposed in this study that some ethical issues might emerge. Of these, the participations in the current study that includes response to self-report scales about traumatic stress and using the guide might evoke some distressful feelings. In addition, the participants in the control group did not use the guide.

Finally, it was the confidentiality of information that the participants presented. For distressful feelings, it was agreed with the Counselling Unit in the Educational Studies and Psychological Research Centre in the University of Baghdad to offer the participants any help they may need. For those who were selected for the control group, they were told after post tests that the guide is available with their lectures, and they can have their copies. For the confidentiality of information, all the materials of data collection were kept in a secure place. Consent forms were kept separately as they had the names of the participants and their numbers. They were linked with questionnaires by the numbers.

Ethical approval was obtained from The Ethical Committee in IWHO as this study recruits human participants. A consent form (Appendix 1) was presented to the participants to sign before they participate in the study. The form included the purposes of the study (administrating questionnaires and conducting an experiment), the study procedures including the response to paper-based questionnaires about traumatic events, post traumatic stress symptoms, posttraumatic cognition, social support, brief cope, and depression and anxiety symptoms. In addition, the participants were informed in the form that those who fit the study's criteria will be asked to take part in the experiment. They told also that the experiment includes reading a self-help guide and responding to the questionnaires before and after using the self-help guide. In addition, risks and benefits were included which contain that participation in this study will help develop methods to help the traumatised people in Iraq to deal with traumatic experiences. Personally, they may have a chance to obtain new information about coping with the trauma. It was explained that due to their responses to the questionnaires and participation in

the experiment, some distress might be experienced; this is usually temporary; otherwise, they were told to call the Counselling Unit in the Educational Studies and Psychological Research Centre in the University of Baghdad. In terms of conditions of participation, they were told that they are free to withdraw their consent and discontinue participation at any time without negative consequences, their participation in this study is confidential, anonymous and voluntary, and data from this study may be published.

2.6 DATA COLLECTION

Four lecturers from the four universities agreed to participate voluntarily in Data collection. The lecturers were instructed about the study aims and procedures.

Self-report scales were used to measure the variables of the study. These scales were Baghdad Trauma History Screen (BTHS), Screen for Posttraumatic Stress Symptoms (SPTSS) (E. B. Carlson, 2001), Posttraumatic Cognition Inventory (PTCI) (Foa, Ehlers, Clark, Tolin, & Orsillo, 1999), Brief Cope (C. Carver, 1997), Social support, and The Hospital Anxiety and Depression Scale (O. E. el-Rufaie & Absood, 1987) (see Chapter 3 for full details).

In addition to paper-based scales, qualitative data were collected via Internet-based open-end questionnaire about the traumatic experiences. Furthermore, data were obtained from Iraqi psychiatrists and psychologists about the face validity of scales and the SHG. Focus groups also were conducted to discuss

the strength and weakness of the guide. The data were entered and analysed using SPSS software.

3 CHAPTER 3: the psychometric properties of scales

As stated in Chapter one, the main aim of this study was to develop and examine the effectiveness of a self-help guide. According to the literature review, some risk factors for PTSD have been identified. These risk factors: trauma history, coping strategies, posttraumatic cognitions, and social support. Depression and anxiety also were examined. In addition, demographic variables including gender, social status, city, and academic year as well as past history seeking therapy were also considered.

The study took place in Baghdad Capital City. All the participants were university students and recruited from the four public universities in Baghdad.

Self-report scales were used to measure the study variables. The review of Iraqi studies showed that appropriate scales with validation data from Iraqi participants were either not available or not accessible. Therefore, these scales were validated in two separate studies. The first study was conducted to validate the scales of trauma history screening, Brief Cope, and social support. In second study, the scales of PTSD, Posttraumatic Cognitions, and depression and anxiety were validated.

3.1 VALIDATION STUDY ONE:

In this study, three self-report instruments were validated. These instruments were a checklist to evaluate trauma history, and two scales to measure coping strategies and social support.

3.1.1 Participants

The selection of participants was conducted through three stages. First, one faculty from each university was randomly selected. Second, one department was selected from each faculty. The departments were:

1. The English language department in Faculty of Education, University of Baghdad.
2. The Biology Department, Faculty of Sciences, Alnahrain University.
3. The Arabic Language Department, Faculty of Art, AlMustansiryha University.
4. The Electrical Engineering Department, University of Technology.

Thirdly, one group from each department was randomly selected. Each group comprised of four classes. All students in these classes were presented with a brief about the study aims and procedures and were then asked to participate in the study. In addition, they were told that they were free to withdraw from the study without any objection at any time. Three hundred and ninety four students agreed to participate. Later, the participants who agreed to participate were asked to sign a written consent form. As 34 participants did not completely answer all items in the three instruments, their responses were excluded. Valid responses were therefore gained from 360 participants. The sample consisted of 140 (39%) males and 220 (61%) females. The ratio of females to males in the sample is similar to the proportion in the community. The percentage of females in the population of university students in Baghdad is 60% according to the statistics of the Iraqi Ministry of Planning (Central Organization for Statistics and Information Technology, 2011). Participants'

age ranged from 19 to 36 years (*M*= 22.88, *SD*= 3.40). The participants were classified into two groups: the first was from 19 to 24 years which represents the normal university age in Iraq, and the second was from age 25 or older. Table 3-1 shows the distribution of participants according to gender, age group, and academic year.

Table 3-1:The Numbers and Percents of Students According to Gender, Age Group, and Academic Year.

	1st Year	2nd Year	3rd Year	4th Year	Total
Males	n(%)	n(%)	n(%)	n(%)	n(%)
19-24	36(26)	31(22)	8(6)	14(10)	89(64)
25 or older	7(5)	5(3)	7(5)	32(23)	51(36)
Subtotal	43	36	15	46	140
Females					
24 or less	37(17)	35(16)	68(31)	45(20)	185(84)
25 or older	2(0.01)	2(0.01)	11(5)	20(9)	35(16)
Subtotal	39	37	79	65	220

All instruments were administered at the same time. The average time to complete the scales was 25 minutes. The detailed procedures of each instrument are presented in the following sections.

3.1.2 Baghdad Trauma History Screen

Most instruments designed to evaluate trauma history do not cover the wide range of traumatic events which people have experienced in Iraq (e.g. E. Carlson, et al., 2011). Therefore, it was reasonable to develop a new checklist to examine the trauma history for traumatised people in Iraq.

A questionnaire to screen trauma history (Baghdad Trauma History Screen, BTHS) was designed to measure the prevalence of the traumatic events to which university students in Baghdad were exposed. The items of the

questionnaire were devised from a literature review, discussions with a group of specialists in psychology and psychiatry (one psychiatrist, two clinical psychologists, two general psychologists, and one measurement psychologist) in Baghdad, along with an opportunistic sample of 18 students (10 males and eight females) who were asked to respond to an open question detailing the traumatic events that they experienced and their associated emotions.

In addition, an open-ended questionnaire was published on a prepaid website (www. surveymonkey.com) which is designed for the management of surveys. The email addresses were obtained through advertisements published in Iraqi postgraduate and undergraduate students' forums asking for participation in the research. The students who agreed to participate sent their email addresses. Later, the link of the questionnaire was emailed to all of those who agreed to participate. The link was also published on a number of Iraqi students' forums.

One hundred and four participants visited the questionnaire page and entered their biographical data such as gender and age, but only 42 participants entered data about the experienced events.

Analysing the collected data as well as the review of Iraqi studies show that there are 20 incidents that should be measured. Regardless their frequency, these events were considered to comprehensively cover the area of traumatic events in Iraq. They were reported either by participants in the current study or participants in the reviewed Iraqi studies. Therefore, the final version included 20 traumatic events, although the initial number of items was greater than 20. Some items were deleted because they were duplicates and others were merged in a single item; for example "losing a close friend and losing a family member" were merged in a single item "losing a close person". An item

"seeing someone who had been exposed to killing" was also merged with an item "seeing someone had been exposed to kidnapping" to become "seeing someone who had been exposed to killing or kidnapping". The questionnaire focused on whether the participant themselves and/or their close persons had been exposed to each event, the number of times they were exposed, and their reactions, including feelings of fear and helplessness, and perceived threat and harm. The participants were firstly asked to report whether or not they or the people close to them (family and friends) had been exposed to each of the events and then report when it occurred and how many times. Secondly, they were asked to report whether they felt intense fear, horror, or helplessness in responses to the experienced event. The checklist was initially devised in Arabic and has been translated into English. Table 3-2 shows a list of traumatic events included in the checklist of trauma history screen questionnaire.

Table 3-2: List of Traumatic Events including in final scale

Events
Aerial bombing
Watching authentic video clips depicting killing
Losing a close person
Witnessing someone who had been killed or kidnapped
Hanging of a close relative or friend
Sudden death of a family member
Roadside explosion
Car bomb
Armed robbery
Shooting
Politically motivated arrests
Severe Motor Vehicle accident
Victim of sexual rape
Migration or displacement
Robbery at gunpoint
Kidnapping
Attempt to kill
Attack by military force
Chemical attack
Physical torture

3.1.2.1Face validity

Face validity was evaluated by a group of six specialists in psychology and psychiatry, mentioned above, from Baghdad University. A meeting with them took place to discuss if the events included in the BTHS cover the most common events in Iraq, and if the emotions mentioned emerged in response to traumatic events. They were asked to assess whether this list of events covers the area of traumatic events in Iraq. They all agreed that the list was comprehensive; thereby they agreed that the BTHS was an appropriate measure of history of traumatic exposure.

3.1.2.2Reliability

Test-retest reliability was assessed by re-administering the BTHS to a sample of 23 students that was randomly selected from the original sample with a time interval ranging between 15 to 20 days. The correlation coefficient was .85 for the reported exposure to traumatic events and .73 for the related emotions showing that BTHS was internally consistent. See (Appendix 2) for the final version.

3.1.3 Brief Cope

Coping strategies have been measured using a variety of self-reported scales. For example, Niiyama et al. (2009) used a 19 item scale to measure the coping strategies of nurses who experienced trauma in the workplace. The scale included six factors: positive action, positive thinking, cognitive avoidance, uncontrolled thinking, talking, and change of pace. A 4 item scale was

developed to measure coping skills in a sample of individuals with rheumatoid arthritis (Sinclair & Wallston, 2004). Brodzinsky et al. (1992) developed a scale comprising of 29 items that included four categories of coping behaviours. These categories were assistance seeking, cognitive-behavioural problem solving, cognitive avoidance, and behavioural avoidance. Valentiner et al. (1996) developed a scale of 26 items to measure coping strategies in women who experienced sexual and nonsexual assault. The scale was consisted of three subscales: mobilizing support, positive distancing, and wishful thinking. Stanton, Kirk, Cameron, and Danoff-Burg (2000) constructed a scale to measure emotional coping. It included two subscales: emotional processing and emotional expression; each scale was comprised of four items. Furthermore, Finset et al (2002) developed the brief approach/avoidance coping questionnaire consisting of 12 items.

To examine coping strategies in the current study, Carver's Brief Cope scale (1997) was used. The Brief Cope has been widely used to measure strategies to cope with both stressful events and traumatic stress, as mentioned above (for example, C. M. e. a. Arata, 2000; Beaton, 1999; Navia & Ossa, 2003; Riolli & Savicki, 2010; Stallard, 2007; Thavichachart, et al., 2009). It has been administered in other languages as well as English (Fillion, Kovacs, Gagnon, & Endler, 2002; Khaya, 2007; Muller & Spitz, 2003; Perczek, Carver, Price, & Pozo-Kaderman, 2000; Yusoff, Low, & Yip, 2010). It has also been used to measure changes in coping strategies after an intervention programme (Burns & Nolen-Hoeksema, 1991; Willert, Thulstrup, Hertz, Bonde, & Sc, 2009). The original version of the Cope consisted of 60 items divided into 15 subscales (Charles S. Carver, et al., 1993; Charles S Carver, Scheier, & Weintrau, 1989).

The Brief Cope consists of 14 subscales with two items in each scale; Carver (1997) stated that this was because participants became impatient due to the redundancy and length of the original version. The Brief Cope was validated in a sample of 168 community residents who were exposed to a natural disaster: Hurricane Andrew. Cronbach alpha scores for the subscales ranged from .50 to .90. Factor analysis confirmed that the factor structure of the Brief Cope was similar to the full inventory. The responses to the items were 1 (I haven't been doing this at all), 2 (I've been doing this a little bit), 3 (I've been doing this a medium amount) and 4 (I've been doing this a lot). The subscales and their items are listed in Table 3-3.

Table 3-3: The Brief Cope's subscales and Their Items

Coping strategies (subscales)	Items
Active Coping	1-I've been concentrating my efforts on doing something about the situation I'm in. 2-I've been taking action to try to make the situation better.
Planning	1-I've been trying to come up with a strategy about what Io do. 2-I've been thinking hard about what steps to take.
Positive Refraining	1-I've been trying to see it in a different light, to make it seem more positive. 2-I've been looking for something good in what is happening.
Acceptance	1-I've been accepting the reality of the fact that it has happened. 2-I've been learning to live with it.
Humour	1-I've been making jokes about it. 2-I've been making fun of the situation.
Religion	1-I've been trying to find comfort in my religion or spiritual beliefs. 2-I've been praying or meditating.
Using Emotional Support	1-I've been getting emotional support from others. 2-I've been getting comfort and understanding from someone.
Using Instrumental Support	1-I've been trying to get advice or help from other people about what to do. 2-I've been getting help and advice from other people.
Self-Distraction	1-I've been turning to work or other activities to

	take my mind off things. 2-I've been doing something to think about it less, such as going to movies, watching TV, reading, daydreaming, sleeping, or shopping.
Denial	1-I've been saying to myself "this isn't real.'" 2-I've been refusing to believe that it has happened.
Venting	1-I've been saying things to let my unpleasant feelings escape. 2-I've been expressing my negative feelings.
Substance Use	1-I've been using alcohol or other drugs to make myself feel better. 2-I've been using alcohol or other drugs to help me get through it.
Behavioural Disengagement	1-I've been giving up trying to deal with it. 2-I've been giving up the attempt to cope.
Self-Blame	1-I've been criticizing myself. 2-I've been blaming myself for things that happened.

The Brief Cope has been used widely both in English and other languages. Yusoff, Low, and Yip (2010) examined the psychometric properties of the English version in a sample of Malaysian women with breast cancer undergoing treatment. They found that Brief Cope was valid and reliable when used with this population. Perczek, Carver, Price, and Pozo-Kaderman (2000) evaluated the psychometric properties of a Spanish version and an English version of brief Cope. They recruited 148 (101 women, 47 men) undergraduate students in University of Miami who speaking English-Spanish bilingual. Their ages ranged from 18 to 37 years (M=19.42, SD=3.19). Their results showed that the Spanish version of the brief Cope's subscales had Cronbach's alpha scores ranging from .62 to .94 which were higher than the English version which ranged between .57 and .93.

3.1.3.1 The structure of Brief Cope

The structure of the Brief Cope has been examined in numerous studies. Originally, Carver (1997) conducted exploratory factor analysis by using an oblique rotation of a 28 items set in a sample of 168 participants who were exposed to Hurricane Andrew. Six factors were yielded by loading some subscales together. The resultant factors were: (1) substance use, religion, humour, and behavioural disengagement (2) use of emotional support and use of instrumental support (3) active coping, planning, and positive reframing (4) venting and self-distraction (5) denial and self-blame and (6) acceptance. Kapsou et al. (2010) found similar results. They recruited 1127 Greek speaking adults from Greece and Cyprus and carried out a factor analysis that resulted in an eight factor solution. Firstly, active coping included the items of subscales: planning, positive reframing, acceptance, and active coping as well as an item from the self-blame subscale. Secondly, behavioural disengagement included the items of this subscale and one item the denial subscale. Thirdly, seeking support comprised of the use of emotional support and use of instrumental support subscales. Fourthly, avoidance included self-distraction and an item of the denial subscale. Fifthly, expression of negative feelings contained the items of the venting subscale and one item of the self-blame subscale. The other three subscales remained in their own structures.

The factor structure of a French version of the Brief Cope was examined in a sample of French-Canadian women with breast cancer. The results showed a structure of eight factors: disengagement, self-distraction, active coping, using emotional social support from husband/partner, using emotional support from friends, religion, humor, and substance use (Fillion, et al., 2002). Another study

was conducted to validate another French version of the Brief Cope to be used in a general French population. Muller and Spitz (2003) recruited 1834 university students who responded to the Brief Cope along with self-esteem, perceived stress, and psychological distress measures. The factor analysis showed an adequate fit between the expected theoretical structure and the observed one. The results demonstrated also a significant link between active coping and high self-esteem, and low levels of perceived stress and psychological distress. In contrast, there was a significant correlation between lower functional coping strategies such as denial or self-blame and poor self-esteem and high levels of perceived stress and psychological distress.

A cross-cultural study was conducted to examine differences in coping strategies as predictors of university adjustment in a sample of university students in Turkey and the USA. One thousand, one hundred and forty three students (695 Turkish, 448 US students) participated in the study. The Brief Cope was translated into Turkish using a translation-back-translation procedure. The results showed that four subscales were excluded: “venting”, “self-blame”, and “acceptance” because they had low Cronbach alpha scores and “using instrumental support” was excluded due to low item-total correlations (Tuna, 2003).

The factor structure of a Spanish version was found to be as same as the intended structure of the Brief Cope in 11 factors represented 11 subscales. The items of active coping and planning were loaded together, and one item of the behavioural disengagement subscale was poorly loaded and other one was loaded on positive reframing. Therefore, a model of 12 factors was produced (Perczek, et al., 2000). In contrast, a confirmatory factor analysis of Brief Cope

was conducted in 252 urban, low-income HIV-seropositive African American women. Three factors such as active coping, support, avoidant coping were yielded (Prado, et al., 2004).

3.1.3.2 Translating the Brief Cope into Arabic:

Although the Brief Cope has been translated into a number of languages, a published Arabic version was not available. Therefore, the Brief Cope was translated into Arabic by the researcher and another Iraqi PhD student who was studying English language and had experience in traumatic stress studies. The two translations were matched and merged to produce one version. The Arabic version was then discussed with six Iraqi psychologists, who were working at the University of Baghdad. They suggested some modifications in terms of re-writing some items to stay in line with the English version and to make it more suitable for the Iraqi population. To ensure that the Arabic version was understandable and readable, 15 Iraqi university students who were studying at the University of Baghdad agreed to participate in two groups (7 students in one and 8 in the other) that were conducted to discuss the contents of items. The participants were asked to explain the content of each item to examine whether what they understood matched the English content. As a result, one item "I've been praying and meditating" was modified. According to the Cambridge dictionary, to pray is "to speak to a god either privately or in a religious ceremony in order to express love, admiration or thanks or in order to ask for something" (Cambridge University, 2011). This is called "Duaa" in Arabic, which is the recommended action for Muslims. In the Islamic culture, to pray, is called "Alsallah" in Arabic, is one of the obligated rites in Islam; a

Muslim has to pray five times a day. Therefore, the item “I've been praying or meditating” was written in Arabic to express three actions: “I’ve been doing Alsallah, Duaa, and mediating”.

3.1.3.3Validation

3.1.3.3.1 Internal consistency

Cronbach’s alpha was conducted to examine the internal consistency of brief Cope. Alpha scores are presented in Table 3-4. The scores of denial, venting, humour, and acceptance were less than .50. Tuncay et al. (2008) mentioned that the minimum acceptable reliable score of scales are only two items is .50. Therefore, these four subscales were removed and were not considered in the later statistical analysis.

Table 3-4: Cronbach's Alpha Scores of Brief Cope's Subscales

Subscale	Alpha
1 Self-distraction	0.64
2 Active coping	0.69
3 Denial	0.48
4 Substance use	0.70
5 Use of emotional support	0.59
6 Use of instrumental support	0.66
7 Behavioural disengagement	0.62
8 Venting	0.35
9 Positive reframing	0.63
10 Planning	0.70
11 Humour	0.22
12 Acceptance	0.43
13 Religion	0.56
14 Self-blame	0.60

3.1.3.3.2 Factor analysis

Following the psychometric procedures used by the original authors, the remaining items of The Arabic version of the Brief Cope were submitted to a

principal-component factor analysis. Initially, the sampling adequacy and sphericity were tested; the Kaiser-Meyer-Olkin Measure of Sampling Adequacy value was .945 and Bartlett's Test of Sphericity value was 7.813. These two tests indicated that the data were suitable for a factor analysis. A 4-factor solution resulted and explained 63% of the variance (minimum loading .40). The number of factors extracted from the factor analysis theoretically consistent with the concept of coping and also with results of a study of the author of scale (C. Carver, 1997).

The first factor included all items from the use of emotional support, the use of instrumental support, and the self-distraction subscales as well as one item from the religion subscale. This factor was labelled *seeking support* coping strategies. This was consistent with studies of Carver (1997), Fillion et al. (2002), and Kapsou et al.(2010). The second factor included all items from the active coping and planning subscales in addition to one item from the positive reframing subscale and one from the religion subscale, this factor was termed *Active coping strategies*; this was also consistent with Carver (1997), Fillion et al. (2002), and Kapsou et al. (2010). The third factor comprised of the full subscales of behavioural disengagement and self-blame, and one item from the positive reframing subscale. This was named non prob*lem focused coping strategies*. Finally, the items from the substance use subscale were loaded on a fourth factor, and this was called *substance use*; this came in accordance with Carver (1997), Fillion et al. (2002), and Kapsou et al. (2010). Table 3-5 shows the Brief Cope's subscales and their loadings. Some of the items had cross-loadings, however these loadings were less than .35, therefore they were not included in the table.

Table 3-5: Brief Cope Subscales and Their loadings.

Coping strategies	item	Seeking support	Active coping	Non-problem focused coping	Substance use
Use of emotional support	1	.52			
Use of Instrumental support	1	.66			
Self-distraction	1	.52			
Religion	2	.61			
Use of emotional support	2	.80			
Use of instrumental support	2	.76			
Self-distraction	2	.53			
Active Coping	1		.71		
Planning	1		.75		
Positive reframing	1		.67		
Religion	1		.44		
Active Coping	2		.58		
Planning	2		.58		
Behavioural disengagement	1			.61	
Self-blame	1			.57	
Positive reframing	2			.43	
Behavioural disengagement	2			.66	
Self-blame	2			.70	
Substance use	1				.81
Substance use	2				.81

3.1.3.3.3 Cronbach's Alpha of the Four Factors

To ensure that the resulted factors were internally consistent, Cronbach alpha was calculated. Alpha scores were .82, .79, .67, and .70 for seeking support coping strategies, active coping strategies, non problem focused coping strategies, and substance use factors respectively.

3.1.3.3.4 Items-Total Factors Correlations

Seeking support Coping Strategies

Correlations among items themselves and with the factor total minus the items score of seeking support coping strategies were conducted. Table 3-6 shows that all the correlations were significant at .01.

Table 3-6: Items-Total Correlations of seeking support coping strategies Factor.

	2	3	4	5	6	7	8
Seeking support factor	.61	.71	.63	.70	.81	.78	.62
Use Emotional Support (item 1)		.42	.29	.31	.40	.37	.16
Use Instrumental Support (item 1)			.35	.36	.57	.49	.23
Self-distraction (item 1)				.36	.37	.34	.38
Religion (item 2)					.54	.48	.36
Use Emotional Support (item 1)						.65	.42
Use Instrumental Support (item 1)							.44
Self-distraction (item 2)							

Active coping strategies

Correlations among items and with the factor total minus the items score of active coping strategies were all significant and are presented in Table 3-7 at the .01 significant level.

Table 3-7: Items-Total Correlations of Active coping strategies Factor.

	2	3	4	5	6	7
Active coping factor	.69	.72	.66	.63	.77	.74
Active Coping (item 1)		.55	.36	.33	.33	.36
Planning (item 1)			.40	.28	.43	.38
Positive Reframing (item 1)				.25	.41	.37
Religion (item 1)					.43	.35
Active Coping (item 2)						.61
Planning (items 2)						

Non-problem focused coping Strategies

The items of non problem focused coping strategies factor showed significant correlations among themselves and with the factor total minus the items score. The correlations are presented in Table 3-8.

Table 3-8: Items-Total Correlations of non problem focused coping strategies Factor.

	2	3	4	5	6
Non-problem focused coping factor	.63**	.66**	.64**	.64**	.71**
Behavioural disengagement (item 1)		.26**	.23**	.45**	.22**
Self-blame (item 1)			.23**	.22**	.43**
Positive Reframing (item 2)				.26**	.33**
Behavioural disengagement (item 2)					.28**
Self-blame (item 2)					

Although the correlations between the items of the non problem focused coping factor were all significant at .01, these correlations were low. This might reflect the lack of coherence of this factor. Nevertheless, the correlations between the items and the total scores were high and therefore support the idea that this factor could measure related coping skills.

Substance Use Factor

A significant correlation of .54 was found among the two items of substance use factor.

These significant correlations among the items of factors as well as the Cronbach alpha scores demonstrate the internal consistency of the Arabic version of the Brief Cope.

3.1.3.3.5 Test-Retest reliability

Test-retest reliability was conducted to ensure that the Brief Cope was constant across time. Twenty three participants were recruited to recomplete the scale after an interval time of between 15 and 20 days. The correlations between the test and retest scores ranged from .74 to .83. These significant correlations show that the Brief Cope was reliable over time.

3.1.3.3.6 Concurrent Criterion Validity

The Post Traumatic Stress Disorder Scale (Natik Al-Kubaisy, 1998) was administered for concurrent criterion validity. This scale composed of 26 items to assess traumatic events and 41 items to examine PTSD and associated symptoms based on the DSM-IV criteria. The respondent should key the items to a specific event. A 5-point scale was used to rate the items. The correlations between the Brief Cope factors and PTSD were conducted to examine concurrent criterion validity. The correlations are presented in Table 3-9. Although these correlations were low to some extent, all of them were significant at .01. Negative correlations were found between PTSD and seeking support coping strategies and active coping strategies. In contrast, positive correlations were found between PTSD and non problem focused coping strategies and substance use. The current results showed that the low correlation between PTSD and substance use may indicate a low tendency to use substance in traumatised people in Iraq.

Table 3-9: Correlations between PTSD and Brief Cope factors.

Brief Cope Factors	PTSD
Seeking support coping strategies	-0.31
Active coping strategies	-0.32
Non-problem focused coping strategies	0.35
Substance use factor	0.15

The Cronbach alpha scores and inter-correlations of its items showed that it was internally consistent. At the same time, test-retest reliability demonstrates that the Arabic version of Brief Cope was externally consistent. In addition, content validity and concurrent validity showed that it was valid to measure

coping strategies. Therefore, these statistical parameters showed clearly that the Arabic version of Brief Cope (Appendix 3) was a valid and reliable instrument to measure coping strategies in the Iraqi university students population.

3.1.4 Social support

The literature review shows clearly that social support plays an essential role in protecting traumatised people against the aftermath of traumatic events. Therefore, examining the social support in the current study was very important not only to measure the social support and the satisfaction with support but also to understand its role in moderating the impacts of trauma and to control for this variable when the effectiveness of the self-help guide is assessed.

Although there are varied views of social support, the most common aspects of social support may be the support network, the type of support, and the satisfaction with support. Accordingly, many self-report scales were developed. For example, some measures have focused on support networks. Sarason, Levine, Basham, and Sarason (1983) developed the Social Support Questionnaire consisting of 6 items to measure perceived support. Vaux, Riedel, and Stewart (1987) designed a social support resources scale which comprised of 45 items to measure social support received from family and friends in five modes of support, such as emotional support, socialising, practical assistance, financial assistance, and advice or guidance. Canty-Mitchell and Zimet (2000) validated a scale consisting of 12 items to measure perceived support from family, friends, and significant others.

Other scales were developed to measure support functions. For example, the Inventory of Socially Supportive Behaviour is a 40 items scale used to assess the type and amount of social support, such as emotional support, the provision of material goods or tangible assistance, cognitive guidance, and socialising (Barrera, Sandler, & Ramsay, 1981).

In addition, other scales were developed to evaluate social support. For example, the Provision of Social Relationships Questionnaire comprises of 7 items to assess perception and experiences of social support (Turner, 1981) and The Social Support Appraisals (SS-A) which was a 24-item scale designed to measure the perceived and availability of social support from family, friends, and co-workers (Klarić, et al., 2008).

Due to the culturally-specific nature of social support, in that it is related to the community and the kind of values and tradition that dominate in a culture, and also the nonavailability or nonaccessibility of an Arabic scale to measure social support, a new scale was developed to be appropriate to the Iraqi population.

3.1.4.1Methods

3.1.4.1.1 Item Generation

Based on a review of studies that assessed social support, four aspects of social support were considered in order to develop the scale, including type of social support, the quantity of social support, support networks, and the evaluation of perceived support. To determine the type of support and networks, a pilot study was conducted. Two open-questions were asked about the most common types of support already received and the types of support that were helpful as well as the sources of support (networks). These two questions were put in two

formats; paper-based and web-based. The questions were: 1) when you had been exposed to a traumatic event, have you received any kind of support that helped to deal with the trauma? If (yes) please describe this help as much as you can? 2) Who provided you this help?

Twenty four students (15 females, 9 males) from the University of Baghdad agreed to answer the paper-based questions. Regarding the web-based questions; the link was sent to Iraqi students who were studying in the UK. The participants were asked to respond to the questions only if they have experienced traumatic events in their past lifetime.

Eighteen students of the paper-based group and 37 of web-based groups provided relevant answers. Later, the collected data were analysed to find the common types of support and support sources. Consequently, three types of support were reported frequently which were informational, emotional, and instrumental supports. In terms of sources of support, the participants frequently mentioned family including parents, siblings, and close relatives as well as friends. They also reported, but less frequently, support received from governmental and nongovernmental organisations (GO-NGO).

In addition to the types of helping behaviours that were displayed in previous research, the themes that were obtained from the pilot study were considered to generate the scale's items. Twenty three items were produced, 21 items to measure the types of social support and two to measure the general satisfaction with received support. A 4-point Likert scale ranging from "very much" to "not at all" was used to rate the items for each one of support sources; family, friends, and GO-NGO. All items were reviewed by seven psychologists in Baghdad universities. The experts were asked to evaluate whether the items

were suitable to measure social support or not, and whether the items needed to be modified. After the consideration of experts' comments, three items were eliminated and others modified. Consequently, 20 items remained; 18 for measuring the types of social support and 2 for satisfaction. The items are presented in Table 3-10.

Table 3-10: Items of social support scale

Items
Emotional Support
1. Helped me to feel better
2. Made me feel that I'm really an important person
3. Expressed to me that they understand my feelings
4. Joked and kidded to try to cheer me up
5. Encouraged me to be in touch with others
6. Let me know that they will be around if I need assistance
Instrumental Support
7. Helped me to deal with the traumatic event
8. Provided me with a place when I needed it
9. Helped to accept the incident as an accident
10. Gave you some money
11. Provided me an opportunity to meet people exposed to similar incidents to exchange ideas
12. Provided me an opportunity for mental health care
Informational Support
1. Provided me information about traumatic events
2. Gave me feedback on how I was doing
3. Talked with me about the decisions that I made about the incident
4. Said things that helped me to understand the trauma
5. Told me how they felt in a situation that was similar to yours
6. Suggested some actions that I should take to deal with traumatic stress
Satisfaction with Support
19. I feel satisfied about the support that I have received
20. I feel that the support that I have received was helpful

3.1.4.2Psychometric Properties

3.1.4.2.1 Item-Total Correlations for Social Support Items

A series of correlations were carried out between the items and their subscale totals minus the items scores. Most of the items had significant correlations with the total score of the three subscales; family, friends, and GO-NGO. Apart

from that, four items had not significant correlations with one or more of subscales. As a result, these four items were eliminated and were not considered for further analysis. The remaining items were 16; 14 to measure types of support and 2 to measure satisfaction with support. The correlations are presented in Table 3-11.

Table 3-11:Inter-Correlations of Items of Social Support Subscales.

Items	Family	Friends	GO-NGO
Helped me to feel better	.67**	.76**	.49**
Made me feel that I'm really an important person	.69**	.76**	.65**
Expressed to me that they understand my feelings	.71**	.82**	.75**
Helped me to deal with the traumatic event	.73**	.76**	.69**
Provided me information about traumatic events	.61**	.69**	.68**
Joked and kidded to try to cheer me up^	.13*	.12*	.10
Provided me with a place when I needed it	.73**	.80**	.72**
Helped to accept the incident as an accident	.69**	.80**	.76**
Gave me feedback on how I was doing^	.08	.08	.25**
Talked with me about the decisions that I made about the incident	.73**	.80**	.77**
Said things that helped me to understand the trauma	.73**	.80**	.79**
Encouraged me to be in touch with others	.73**	.81**	.72**
Gave me some money^	.14*	.09	.14*
Let me know that they will be around if I need assistance	.70**	.79**	.81**
Provided me an opportunity to meet people exposed to similar incidents to exchange ideas	.61**	.74**	.67**
Told me how they felt in a situation that was similar to mine^	.16*	.12*	.03
Suggested some actions that I should take to deal with traumatic stress	.71**	.78**	.75**
Provided me with an opportunity for mental health care	.73**	.76**	.52**
I feel satisfied about the support that I have received	.76**	.85**	.81**
I feel that the support that I have received was helpful	.74**	.82**	.74**

Note: ^item eliminated
*p<.05, **<.01,

3.1.4.2.2 Factor analysis

To assess the structure of the social support scale, component factor analysis was used for each subscale. With loadings that were equal or higher than .40, Table 3-12 shows that the family subscale was comprised of two factors that explained 62% of variance, the friends subscale had one factor and explained 66%, and the GO-NGO subscale with two factors explained 64% of variance. As can be seen from the table, the item "*Provided me an opportunity to meet people exposed to similar incidents to exchange ideas*" had cross loadings on two factors in family subscale. Two other items in the GO-NGO subscale, "Suggested some actions that I should take to deal with traumatic stress" and "Provided me an opportunity for mental health care", also had cross loadings on two factors. Consequently, these three items were eliminated because they had high loadings on more than one factor and it was looking for higher level factors statistically that theoretically acceptable. Therefore 13 items were considered for further analysis.

Table 3-12:Factors Analysis of 16 items for each Subscale.

Items	Family		Friends		GO-NGO	
	1	2	1	2	1	2
1. Helped me to feel better	.71		.79		.53	
2. Made me feel that I'm really an important person	.73		.79		.69	
3. Expressed to me that they understand my feelings	.75		.85		.79	
4. Helped me to deal with the traumatic event	.77		.79		.73	
5. Provided me information about traumatic events	.66		.72		.72	
6. Provided me with a place when I needed it	.77		.83		.76	
7. Helped me to accept the incident as an accident	.73		.83		.79	
8. Talked with me about the decisions that I made about the incident	.77		.83		.81	
9. Said things that helped me to understand the trauma	.77		.83		.83	
10. Encouraged me to be in touch with others	.77		.84		.77	
11. Let me know that they will be around if I need assistance	.74		.82		.84	
12. Provided me an opportunity to meet people exposed to similar incidents to exchange ideas*	.65	0.40	.77		.71	
13. Suggested some actions that I should take to deal with traumatic stress*	.75		.81		.79	.40
14. Provided me with an opportunity for mental health care*	.77		.79		.56	.53
15. I feel satisfied about the support that I have received	.80		.87		.84	
16. I feel that the support that I have received was helpful	.78		.85		.78	

*loaded on two factors

Factor analysis for the 13-items was conducted. Table 3-13 display the loadings of items in each subscale. The results showed that all items were loaded on one factor that explained 57%, 68%, and 59% of the total variance of family, friends, and GO-NGO subscales respectively.

Table 3-13: Factor Analysis of 13 Items

Items	Family	Friends	GO-NGO
1. Helped me to feel better	.74	.80	.53
2. Made me feel that I'm really an important person	.75	.80	.69
3. Expressed to me that they understand my feelings	.76	.86	.82
4. Helped me to deal with the traumatic event	.77	.80	.75
5. Provided me information about traumatic events	.65	.72	.72
6. Provided me with a place when I needed it	.79	.84	.77
7. Helped to accept the incident as an accident	.75	.84	.78
8. Talked with me about the decisions that I made about the incident	.76	.83	.82
9. Said things that helped me to understand the trauma	.76	.83	.84
10. Encouraged me to be in touch with others	.77	.84	.79
11. Let me know that they will be around if I need assistance	.74	.82	.84
12. I feel satisfied about the support that I have received	.80	.87	.85
13. I feel that the support that I have received was helpful	.78	.85	.77

3.1.4.2.3 Cronbach's Alpha

To examine the internal consistency of the social support scale with 13 items, Cronbach's alpha was conducted. All subscales showed a clear internal consistency with .94, .96, and .94 for family, friends, and GO-NGO respectively.

3.1.4.2.4 Test-Retest reliability

Test-retest reliability was conducted to assess whether the social support scale was constant across time. Twenty three participants were recruited to re-administer the scale after an interval time between 15 to 20 days. The

correlations between the test and retest were .84, .81, and .76 for family, friends, and organisation subscales respectively. These significant correlations show that the social support scale was reliable over time.

3.1.4.2.5 Concurrent Criterion Validity

The correlations between social support subscales and PTSD were conducted to examine concurrent criterion validity. The correlations were (-.47, $p<.01$), (-.49, $p<.01$), and (-.32, $p<.05$) for family, friends, and GO-NGO subscales. These significant negative correlations are consistent with an assumption that people who receive more social support show less PTSD symptoms. Therefore, this was another indication of the validity of the current scale.

The psychometric properties of the Social Support Scale (Appendix 4) with 13 items in one factor showed that it had internal and external consistency as well as construct validity. Therefore, it was a valid and reliable instrument to measure social support in general population settings in Iraq.

3.2 VALIDATION STUDY TWO

This study aimed to validate three more scales that were not used in Iraq before. The scales were the Screen for Posttraumatic Stress Symptoms (SPTSS) to measure posttraumatic stress symptoms following multiple traumas, the Posttraumatic Cognitions Inventory (PTCI) to measure cognitions about self, world and self-blame, and The Hospital Anxiety and Depression Scale (HADS) to measure depression and anxiety symptoms.

3.2.1 Participants

Five hundred and forty-five students were recruited from the four public universities in Baghdad. Two faculties from each university were randomly selected, and one department of each faculty was then randomly selected. Later, one group from each department was randomly selected. Table 3-14 shows the departments, faculties and universities in which the participants were recruited.

Table 3-14: The Universities, Faculties, and Departments involved in Study

University	Faculty	Department
Baghdad	Education for women	History
Baghdad	Engineering	Electrical Engineering
AlMustansiryha	Arts	English Language
AlMustansiryha	Education	Counselling
Alnahrain	Sciences	Chemistry
Alnahrain	Political Sciences	International Politics
Technology	Civil Engineering	
Tachnology	Computer Sciences	

Full responses were obtained from 505 participants (199 males, 306 females), with ages ranging from 18 to 45 years. In terms of social status, 421 were single, 79 married, three widowed, and two divorced. Table 3-15 shows the characteristics of the sample.

Table 3-15: The Numbers and Percents of Students According to Gender, Marital Status, Age Group, and Academic Year.

Demographical Variables	n (%)
Gender	
Males	199 (39%)
Females	306 (61%)
Marital status	
Single	421 (83%)
Married	79 (16%)
Divorced	3 (0.6%)
Widow	2 (0.4%)
Age group	
19-24	407 (81%)
25 or older	98 (19%)
Academic year	
1st	115 (23%)
2nd	233 (46%)
3rd	103 (20%)
4th	54 (11%)

3.2.2 Procedures

Four university lecturers were willing to cooperate with the research to administer the scales; one lecturer from each university. Participants who agreed to participate were asked to remain in the class. The aims and procedures of study were explained for the participants. They were told that the study has two parts. The first one is to validate the scales and find the prevalence rate of symptoms and other study variables. The second part is to examine the effectiveness of a self-help guide. All participants signed a written consent form and indicated whether they consented to participate in either both

parts of the study or only the first part. Later, they were instructed on how to respond to the scales.

3.2.3 Screen for Posttraumatic Stress Symptoms (SPTSS)

PTSD was a recognised disorder in the DSM-IV (APA, 1994), which could be evoked in related to a traumatic experience. Assessment methods vary depending on the aims; diagnosis or screening. Interviews, scales used by interviewers and self-report scales are used to assess trauma-related symptoms (Naomi Breslau, Kessler, & Peterson, 1998; Naomi Breslau, Peterson, Kessler, & Schultz, 1999; Briere & Spinazzola, 2005; Weathers, Ruscio, & Keane, 1999). Briere and Spinazzola (2005) emphasise that trauma measures should be validated and standardised in the general population, and that without normative data clinicians will not be able to use the measure to judge if that individuals' scores represent dysfunction or disorder. When using screening instruments to examine the existence of symptoms, it should not be problematic the measures have not been based on normative data because the aim is not to diagnose but to screen for PTSD symptoms. This study aimed to find the prevalence rates of PTSD in the general population in Iraq and also the existence of symptoms before and after using the self-help guide. To obtain an appropriate measure of PTSD which was a key variable in the current study, a number of the common self-report scales were reviewed. Scales that were developed outside Iraq are presented in Table 3-16 and scales that were developed in Iraq are presented in Table 3-17.

Table 3-16: Self-Report Scale Developed outside Iraq.

Scale	Participants	Items No	DSM	Trauma
Mississippi Scale for Combat-Related PTSD (M-PTSD) (Keane, Caddell, & Taylor, 1988)	Vietnam Veterans	35	III	Combat
Trauma Symptoms Checklist-40 (TSC-40) (Elliott & Briere, 1992)	Women with childhood sexual abuse	40		Childhood and adult traumatic experiences
Penn Inventory for Posttraumatic Stress Disorder (PI-PTSD) (Hammarberg, 1992)	Vietnam Veterans	26	III-R	Combat
Modified PTSD Symptom Scale (MPSS-SR) (Falsetti, Resnick, Resick, & Kilpatrick, 1993)	Rape Victims	17	III-R	Not specified
Los Angeles Symptom Checklist (LASC) (King, King, Leskin, & Foy, 1995)	Vietnam veterans, victims of childhood sexual abuse, outpatients, and women with stressful marital difficulties,	43	IV	Not specified
Impact of Event Scale-Revised (IES-R) (Weiss & Marmar, 1996)	Not specified	22	IV	Not specified
Davidson Trauma Scale (DTS) (J. R. T. DAVIDSON, et al., 1997)	war veterans and victims of rape or hurricane as well as a group of participants with mixed traumas	17	IV	Not specified
Posttraumatic Diagnostic Scale (PDS) (Foa, et al., 1997)	People who were in women's shelters, fire stations, police stations, ambulance corps, and rehabilitation residences	17	IV	Not specified
Self-Rating Scale for Posttraumatic Stress Disorder (SRS-PTSD) (Carlier, Lamberts, Van Uchelen, & Gersons, 1998)	survivors of the Bijlmermeer plane crash in the Netherlands in 1992	17	III	Plane crash
PTSD Checklist (PCL) (Weathers, et al., 1999)	Veterans, and civilians	17	IV	Not specified
PTSD-Q (Cross & McCanne, 2001)	College-age women in general population	17	IV	Not specified
Screen for Posttraumatic	psychiatric	17	IV	Not specified

Stress Symptoms (SPTSS) (E. B. Carlson, 2001)	inpatients			

Table 3-17: Self-Report scales developed in Iraq.

Scale	Participants	Items No	DSM	Trauma
Post Traumatic Stress Disorder (Alatrany, 1995)	secondary school-age people	27	III-R	Losing close people in airstrike of AlAmeriahe Shelter in Baghdad
Post Traumatic Stress Disorder Scale (Natik Al-Kubaisy, 1998)	General population	41 items	IV	Not specified
Post Traumatic Stress Disorder and Associated Symptoms (Al-Sheakh, 2002)	Iraqi war prisoners	64	IV	Experiences of prison
Post Traumatic Stress Disorder Scale (Alezerjawi, 2005)	the seven class students in secondary schools	49	IV	Not specified

Based on the review of scales, the screen for Posttraumatic Stress Symptoms (SPTSS) (E. B. Carlson, 2001) was used to measure the PTSD symptoms in the current study. There were several reasons for this. Other scales were either developed for a specific trauma, for a specific population, to force participants to key their symptoms to a specific trauma, based on previous versions of DSM, or has a large number of items.

The SPTSS is a brief scale and based on DSM-IV PTSD criteria. It was also a valid and reliable instrument and used to measure symptoms without a need to link them to a single event. In addition, the SPTSS was already used with people who experienced multiple traumatic events (Lapierre, Schwegler, & LaBauve, 2007). Moreover, it was administered in a community sample of Bedouin men, an Arab minority, and those serving in the Israeli forces (Caspi,

Carlson, & Klein, 2007). Furthermore, the SPTSS was used to measure PTSD symptoms in a sample of Iraqi refugees in Jordan, but the results have not been published yet*. Discussions with Iraqi psychiatrists also demonstrated that SPTSS could be useful to measure the symptoms in the Iraqi population where people have been experiencing traumatic incidents on a multiple and ongoing basis.

The SPTSS was comprised of 17 items to closely match the PTSD symptoms criteria in DSM-IV. The items are listed in Table 3-18.

Table 3-18 : Items of SPTSS

Avoidance Items

1. I don't feel like doing things that I used to like doing.
2. I can't remember much about bad things that have happened to me.
3. I feel cut off and isolated from other people.
4. I try not to think about things that remind me of something bad that happened to me.
5. I feel numb: I don't feel emotions as strongly as I used to.
6. I have a hard time thinking about the future and believing that I'm going to live to old age.
7. I avoid doing things or being in situations that might remind me of something terrible that happened to me in the past.

Arousal Items

8. I have trouble concentrating on things or paying attention to something for a long time.
9. I feel very irritable and lose my temper.
10. I am very aware of my surroundings and nervous about what's going on around me.
11. I get startled or surprised very easily and "jump" when I hear a sudden sound.
12. I have trouble getting to sleep or staying asleep.

Re-Experiencing Items

13. I find myself remembering bad things that happened to me over and over, even when I don't want to think about them.
14. I have bad dreams about terrible things that happened to me.
15. I get very upset when something reminds me of something bad that happened to me.
16. When something reminds me of something bad that happened to me, I feel shaky, sweaty, nervous and my heart beats really fast.
17. I suddenly feel like I am back in the past, in a bad situation that I was once in, and it's like it was happening it all over again.

* - The researcher has been contacted several times, but it seems they have not decided to publish the data yet.

The SPTSS uses a 5-point scale (0=”not at all”, 1=1to 2 times, 2=”almost every day”, 3=”about once every day” and 4=”more than once every day”) to estimate symptom occurrence during the last month. Carlson (2001) validated the SPTSS in a sample of 136 inpatients (63 males, 73 females) who had a mean age of 37.6 years.

In terms of reliability, the scale was internally consistent, with a Cronbach’s alpha of .91. Moreover, all items had significant correlations with the scale’s total score. With regard to validity, The SPTSS had criterion-related validity, thus it had significant relationships with other measurement instruments, such as the structure interview for PTSD, the Symptoms Checklist-PTSD subscale, the symptoms Checklist-90- revised-anxiety subscale, violent sexual abuse, and violent physical abuse. SPTSS also showed high scores of sensitivity and specificity; ranging from 85 to 95 and from 50 to 73 for sensitivity and specificity respectively (E. B. Carlson, 2001).

An Arabic version of the SPTSS that was used with Iraqi refugees in Jordan was referred to a group of Iraqi psychiatrists and psychologists. Some language modifications were suggested. Then individual discussions, face to face or via phone, were conducted to clarify the necessary language changes. Later, a group of 11 Iraqi students who are currently studying in the UK were asked to explain the meaning of each item; this showed that all items displayed a good match between the Arabic wording and the English content of the item.

3.2.3.1 Validation

3.2.3.1.1 Internal consistency:

The SPTSS showed indications of internal consistency; Cronbach's alpha scores were .90, .84, .82, and .67 for the total scale, re-experience, avoidance, and hyper arousal subscales, respectively.

3.2.3.1.2 Test–Retest Reliability

To ensure that the SPTSS was constant over time, 20 participants were randomly selected from the 424 participants to re-complete the scale after an interval time of 15 days. The correlations between the test and retest were .83, .80, .78, and .77 for the total scale, and the re-experiencing, avoidance, and hyperarousal subscales respectively. These significant correlations showed that the SPTSS was constant over time.

3.2.3.1.3 Construct validity, Inter-items correlations

The correlations between the items and their subscales' scores and the scale total scores were calculated (see Table 3-19). The correlations were all significant which reflected that the SPTSS had construct validity.

Table 3-19:The Items' correlations with their subscales and the total scores of the scale.

Items	Correlation with subscales	Correlation with total
Avoidance Items		
1. I don't feel like doing things that I used to like doing.	.61	.62
2. I can't remember much about bad things that have happened to me.	.54	.51
3. I feel cut off and isolated from other people.	.64	.66
4. I try not to think about things that remind me of something bad that happened to me.	.61	.63
5. I feel numb: I don't feel emotions as strongly as I used to.	.61	.59
6. I have a hard time thinking about the future and believing that I'm going to live to old age.	.57	.54
7. I avoid doing things or being in situations that might remind me of something terrible that happened to me in the past.	.40	.50
Arousal Items		
8. I have trouble concentrating on things or paying attention to something for a long time.	.36	.46
9. I feel very irritable and lose my temper.	.49	.55
10. I am very aware of my surroundings and nervous about what's going on around me.	.48	.54
11. I get startled or surprised very easily and "jump " when I hear a sudden sound.	.46	.51
12. I have trouble getting to sleep or staying asleep.	.42	.52
Re-Experience Items		
13. I find myself remembering bad things that happened to me over and over, even when I don't want to think about them.	.58	.60
14. I have bad dreams about terrible things that happened to me.	.59	.63
15. I get very upset when something reminds me of something bad that happened to me.	.65	.62
16. When something reminds me of something bad that happened to me, I feel shaky, sweaty, nervous and my heart beats really fast.	.66	.69
17. I suddenly feel like I am back in the past, in a bad situation that I was once in, and it's like it was happening it all over again.	.73	.71

Another indication of construct validity was tested. There were significant correlations between the subscales themselves and the total score of the SPTSS. The correlations are presented in Table 3-20.

Table 3-20: The Correlations between SPTSS and its Subscales

	Arousal	Re-Experience	SPTSS
Avoidance	.68	.67	.91
Arousal		.70	.87
Re-Experience			.88

3.2.3.1.4 Discriminative power of items

An item's ability to differentiate between the participants in the behaviour measured by the scale is item discrimination (Anastasi and Urbina, 1997). Based on the DSM-IV, people who have experienced traumatic events may develop PTSD symptoms. Hence, it was reasonable to think that SPTSS items should distinguish between those who have been exposed to traumatic events and those who have not. According to criteria A1 and A2 of PTSD criteria, the victim should report that he/she has experienced an incident with fear, horror, or helplessness during the trauma. Eighty-one participants did not report experiencing a traumatic event, while 424 participants reported that they experienced at least one event that met criterion A2. Accordingly, two groups of the participants who met or did not meet the criterion A2 were selected. Table 3-21 shows that there were significant differences between the two groups. Therefore, this confirmed that the SPTSS was able to differentiate between people who experienced traumatic events and those who did not.

Table 3-21: The differences SPTSS items between two groups of the participants who met or did not meet Criterion A2

	Meeting A2		
	Yes n=424	No n=81	
items	M (SD)	M (SD)	t value
1	1.45 (1.34)	1.12 (1.29)	2.06*
2	1.20 (1.34)	0.73 (0.90)	3.06**
3	.913 (1.32)	0.55 (0.98)	2.37*
4	1.28 (1.38)	0.84 (1.14)	2.68**
5	1.05 (1.37)	0.59 (0.98)	2.87**
6	1.44 (1.44)	1.06 (1.18)	2.24*
7	1.94 (1.42)	1.50 (1.28)	2.58**
8	1.61 (1.43)	1.23 (1.43)	2.19*
9	1.95 (1.49)	1.46 (1.39)	2.74**
10	2.00 (1.39)	1.66 (1.42)	2.03*
11	1.93 (1.33)	1.52 (1.20)	2.59**
12	1.47 (1.49)	1.09 (1.35)	2.17*
13	1.83 (1.35)	1.38 (1.26)	2.83**
14	1.54 (1.51)	1.10 (1.21)	2.51*
15	1.83 (1.37)	1.39 (1.14)	2.71**
16	1.54 (1.52)	1.15 (1.33)	2.19*
17	1.40 (1.35)	1.05 (1.19)	2.21*

*p< .05; **p<.01

The differences between these two groups were also significant in the SPTSS and its subscale as shown in Table 3-22.

Table 3-22: The differences in SPTSS and its Subscales between Two Groups of the Participants According to Criterion A2.

	Meeting A2		
	Yes n=424	No n=81	
SPTSS subscales	M (SD)	M (SD)	t value
Avoidance	9.28 (6.81)	6.40 (4.03)	3.70**
Arousal	8.96 (4.78)	6.96 (3.51)	3.60**
Re-Experience	8.14 (5.26)	6.06 (3.88)	3.41**
SPTSS	26.39 (15.07)	19.43 (8.85)	4.05**

** p<.01

In conclusion, the SPTSS (Appendix 5) was a valid and reliable instrument to measure PTSD symptoms following exposure to multiple traumatic events. Therefore, it seems it was appropriate to use the SPTSS to screen the symptoms in Iraqi participants who experienced an incident that meet criteria A of PTSD in the DSM-IV. However, it should be taken into account that this instrument was not used to diagnose but to screen symptoms; this was the aim of this study in its next stages.

3.2.4 Posttraumatic Cognition (PTC)

A significant amount of literature shows that trauma-related cognitions before, during, or after the trauma play a key role in developing and maintaining trauma symptoms. Therefore, the assessment of the different aspects of these cognitions is essential in order to understand the developing stages of disorder and also to develop an adequate intervention programme.

To achieve the aims of this study, the Posttraumatic Cognitions Inventory (PTCI) (Foa, et al., 1999) was selected to assess the cognition about self and the world and self-blame. The PTCI was frequently used around the world to measure posttraumatic cognitions (Carek, et al., 2010; Karin Elsesser, Freyth, Lohrmann, & Sartory, 2009; K. Elsesser & Sartory, 2007; Scher & Ellwanger, 2009).

Foa et al (1999) recruited 600 adult volunteers to develop the PTCI. The participants were 110 patients with chronic or acute posttraumatic symptoms seeking treatment, 190 people from a general population; and 300 university undergraduate students. Sixty five percent of them reported at least one

traumatic event and of those; 170 showed PTSD symptoms ranging from moderate to severe. Based on theoretical considerations and clinical interviews with traumatised people, the authors generated 114 items to measure the different aspects of trauma-related cognitions. The victims had different traumatic experiences such as assault, motor vehicle accidents, work disasters, sudden death, and political incarceration. Six PTSD and cognitive and behavioural therapy experts reviewed the items and excluded four of them and reworded some of other items. The authors used principal-components analysis to find the items that had loadings of more than 50% on a given factor and less than 30% on others. Based on the factor analysis, 33 items were considered for further analysis. The 33 items were categorised into three subscales as follows: 21 items for negative cognition about self subscale (NGS), seven items for negative cognition about the world subscale (NGW), and five items for self-blame subscale (BLAME), the items listed in Table 3-23.

Table 3-23: Items of Posttraumatic Cognition Inventory.

Negative Cognition about Self Subscale

1. I can't trust that I will do the right thing.
2. I am a weak person.
3. I will not be able to control my anger and will do something terrible.
4. I can't deal with even the slightest upset.
5. I used to be a happy person but now I am always miserable.
6. *I feel dead inside.*
7. I am inadequate.
8. If I think about the event, I will not be able to handle it.
9. My reactions since the event mean that I am going crazy.
10. I will never be able to feel normal emotions again.
11. I have permanently changed for the worse,
12. I feel like an object, not like a person
13. I feel isolated and set apart from others.
14. I have no future.
15. I can't stop bad things from happening to me.
16. My life has been destroyed by the trauma.
17. There is something wrong with me as a person.
18. My reactions since the event show that I am a lousy coper.
19. I feel like I don't know myself anymore.
20. I can't rely on myself.
21. Nothing good can happen to me anymore.

Self-Blame Subscale

22. The event happened because of the way I acted.
23. The event happened to me because of the sort of person I am.
24. Somebody else would have stopped the event from happening.
25. Somebody else would not have gotten into this situation.
26. There is something about me that made the event happen.

Negative Cognition about the World Subscale

27. People can't be trusted.
28. I have to be on guard all the time.
29. You can never know who will harm you.
30. I have to be especially careful because you never know what can happen next.
31. The world is a dangerous place.
32. I can't rely on other people.
33. People are not what they seem.

Each item is rated using a 7-point Likert-type scale ranging from 1 (totally disagree) to 7 (totally agree). Thus, high scale scores indicate a stronger endorsement of negative cognitions.

In terms of reliability and validity, the scale was internally consistent; Cronbach's alpha scores were .97, .97, .88, and .86 for the PTCI total score, NGS, NGW, and BLAME respectively. The scale also showed stability over

time; test-retest correlations with an interval time of one week were .74, .75, .89, and .89 for the PTCI total score, NGS, NGW, and BLAME respectively. With regard to the validity, the inventory showed a convergent validity as all its items had significant correlations with two other trauma-related scales; the world assessment scale and the personal beliefs and reactions cognition scales. Moreover, the PTCI showed an ability to discriminate between two groups of people, those who had PTSD and those who did not have PTSD. The PTCI also differentiated between groups according to the types of trauma; participants who experienced assault trauma had higher PTCI scores than those who experienced accidents.

The psychometric properties of the PTCI were again evaluated by Beck et al. (2004). One hundred and twelve individuals who experienced a motor vehicle accident and met criterion A of PTSD in the DSM-IV participated in the study. To measure PTC, PTSD, depression, and anxiety a number of measures were used, such as the Clinician-Administered PTSD Scale (CAPS), State—Trait Anxiety Inventory (STAI), and the Beck Depression Inventory as well as PTCI. Factor analysis yielded a three factors model but four items of the NGS subscale ("*I can't trust that I will do the right thing*", "*I will not be able to control my anger and will do something terrible*", "*I feel isolated and set apart from others*", and "*There is something wrong with me as a person*") were loaded on two factors and this led to poor model fit. After deleting those items, an adequate model fit resulted. As a result, NGS had 17 items while the items in the two other subscales' were not changed. The reliability and validity of the new model showed that the PTCI and its subscales had significant correlations with depression, anxiety, and PTSD. The PTCI's subscales, NGS

and NGW, also discriminated between those with and without PTSD. Exceptionally, BLAME did not discriminate.

Later, the PTCI was used to assess trauma-related cognitions in a number of studies. For example, Startup, Makgekgenene, and Webster (2007) examined to what extent the PTCI subscales could differentiate between traumatised people with and without PTSD as well as their predictive ability in relation to the severity of posttraumatic symptoms. Sixty three victims who experienced a traumatic event according to DSM-IV criteria were recruited. The PTCI (33 items), the Beck Depression Inventory, and the Posttraumatic Stress Diagnostic Scale were used to assess trauma-related cognitions, PTSD symptoms, and depression. The results showed that there was no significant difference in the severity of posttraumatic symptoms according to the types of experienced trauma. In contrast, there were significant differences in PTC according to the types of trauma and those who experienced sexual assaults had higher scores on all PTCI subscales. In addition, regression analysis showed that PTCI subscales independently predicted the severity of PTSD symptoms; NGS was the superior predictor, while NGW was not. Interestingly, the results showed also that a high score of BLAME was correlated with a low score of PTSD.

In another example, Moser, Hajcak, Simons, and Foa (2007) used the PTCI to examine the relationship between PTC and PTSD symptoms in 853 university students. They found significant relationships between the severity of PTSD and PTCI subscales. Again, NGS was the greatest predictor of PTSD symptoms but not NGW or BLAME.

The PTCI was used to test the effectiveness of some of treatment methods; for example, holographic reprocessing as a treatment method to reduce

posttraumatic cognitions in women. The PTC was clearly reduced after the treatment which showed the sensitivity of the PTCI as an instrument to measure changes during this treatment (Katz, Snetter, Robinson, Hewitt, & Cojucar, 2008).

The PTCI has also been used in other different populations; van Emmerik, Schoorl, Emmelkamp, and Kamphuis (2006) examined the psychometric properties of the Dutch version of PTCI. One hundred and fifty eight treatment-seekers and 178 university students in Amsterdam participated in the study. In addition to the PTCI, other measures were used, such as; structured clinical interview for DSM-IV axis I disorders (SCID-I), mini international neuropsychiatric interview, self-rating for PTSD, the Impact of Event Scale (IES), the Trauma Constellation Identification Scale (TCIS), and the Beck Depression Inventory. The factor analysis of the two samples demonstrated that the Dutch version had same the structure as the original inventory. There were also high Cronbach's alpha scores for the PTCI's total scores and its subscales in both of the samples which ranged from .78 to 94. The PTCI showed stability over time, thus, there were significant positive correlations between test and retest scores. The significant relationship between the PTCI and TCIS demonstrated that the PTCI had a convergent validity. Moreover, the results evidenced that the PTCI was a discriminative instrument; there was a significant difference in the PTCI scores between the PTSD and nonPTSD groups. In terms of the sensitivity of the PTCI to PTSD recovery, the significant positive correlation between the changes in PTSD scores and PTCI scores showed clearly that PTCI scores co-varied with PTSD recovery.

The PTCI has also been translated into the Chinese language (Su & Chen, 2008). The authors recruited 610 undergraduates in four universities in Taiwan; 240 (138 females, 102 males) of them had experienced at least one incident which met criterion A in the DSM-IV. The experienced traumatic events generally were natural disasters, accidents, or physical assaults/abuse. To assess the trauma related symptoms and cognitions, questionnaires such as the Posttraumatic Stress Diagnostic Scale PSDS, the Beck Depression Inventory-II BDI-II, and the Beck Anxiety Inventory BAI, as well as the PTCI were used. The results of factor analysis showed that four items ("*My reactions since the event mean that I am going crazy*"," *Somebody else would not have gotten into this situation*"," *I feel isolated and set apart from others*", and "*There is something wrong with me as a person*") were loaded on more than one factor and this led to a poor model fit; three items were from NGS and one from BLAME. The authors eliminated these items; therefore, a good fit model of 29 items was yielded, later called the PTCI-C. The PTCI-C had internal consistency as it had significant item-total correlations which ranged from .56 to .81 for the total scores and subscales scores as well as Cronbach's alpha coefficients which ranged from .83 to .96. Moreover, the PTCI-C had test-retest reliability, the correlation between the test and retest scores within a one month time interval time ranged from .75 to .81. Again, the PTCI-C clearly differentiated between PTSD and non PTSD groups. Those who experienced either sexual or non sexual assaults showed higher PTCI scores compared to any other trauma types. The PTCI was used in another Asian country. Lommen, Sanders, Buck, and Arntz (2009) conducted a study to examine the association between PTC and PTSD symptoms in Sri Lanka after the tsunami

disaster. They recruited 113 displaced people and assessed posttraumatic cognitions using the PTCI. They found that PTSD scores significantly correlated to NGS and BLAME scores but not to NGW scores. Daie-Gabai, Aderka, Allon-Schindel, Foa, and Gilboa-Schechtman (2011) found similar results. This may prove that traumatic events that negatively affect self-competent are more likely to lead to PTSD due to poor coping strategies. In other words, regardless perception the world as safe or unsafe place, perception the self as incompetent (negative cognitions about self) is a central key in developing PTSD.

Recently, the psychometric properties of a German version of the PTCI were examined. Müller et al. (2010) collected data for 403 persons; 166 accidents survivors, survivors of civil traumas, and 155 crime victims. The data were collected by using a previously translated German version of the PTCI to measure PTC. CAPS and PSDS were used to measure PTSD. The Beck Depression Inventory was used to assess depression, and the State-Trait Anxiety Inventory was used to measure anxiety. The results led to the exclusion of four items; three from NGS ("I am inadequate"," my life has been destroyed by the trauma", and "I can't rely on myself") and one from NGW ("I have to be especially careful because you never know what can happen next"). The 29 item model provided good model fit which was internally consistent. Moreover, the ability of PTCI to discriminate between PTSD and non PTSD groups was confirmed with an accuracy of 76%. The regression analysis demonstrated that NGS was the predominant predictor for PTSD diagnosis.

These studies show clearly that the PTCI was used widely. It was reliable, valid, and sensitive enough to be used in the current study to assess the changes

in PTC before and after using the self-help guide. The original scale with 33 items was administered rather than the modified models which were suggested by a number of studies (Beck, et al., 2004; Müller, et al., 2010; Su & Chen, 2008) in order to find an appropriate model for the Iraqi population.

3.2.4.1 Translating PTCI:

PTCI items were translated into Arabic by the researcher and two other Iraqi experts separately (one was a psychiatrist, and one has PhD in English Language). The three translations were matched and merged to produce one version. Later, this version was discussed with a number of Iraqi psychiatrists and psychologists who suggested some language modifications to make it more suitable for the Iraqi population. To ensure that the Arabic version was understandable and readable, the contents of items were discussed with a group of 9 Iraqi university students currently studying in the UK. The participants were asked to explain the content of each item. If they agreed that the Arabic content of item did not reflect the item's content in English then the item was reworded to show the maximum matching between the Arabic and the English meaning. This technique was preferable because even when the Arabic translation was identical to the English version, the item may still not be understandable due to the cultural differences.

3.2.4.2 Validation

3.2.4.2.1 Factor Analysis

Following the psychometric procedures used by the original authors, the PTCI items were subjected to a principal-component factor analysis. Table 3-24

shows the items' loading values. Any loadings that were less than .35 were removed from the table.

Table 3-24 The Load Values of PTCI's Items

Items	1st Factor	2nd Factor
Negative cognitions about self		
1. I can't trust that I will do the right thing	.59	
2. I am a weak person	.75	
3. I will not be able to control my anger and will do something terrible	.62	
4. I can't deal with even the slightest upset	.50	
5. I used to be a happy person but now I am always miserable	.65	
6. I feel dead inside	.64	
7. I am inadequate	.76	
8. If I think about the event, I will not be able to handle it	.50	
9. My reactions since the event mean that I am going crazy	.80	
10. I will never be able to feel normal emotions again	.64	
11. I have permanently changed for the worse	.74	
12. I feel like an object, not like a person	.82	
13. I feel isolated and set apart from others	.65	
14. I have no future	.58	
15. I can't stop bad things from happening to me		.52
16. My life has been destroyed by the trauma	.69	
17. There is something wrong with me as a person	.75	
18. My reactions since the event show that I am a lousy coper	.74	
19. I feel like I don't know myself anymore	.72	
20. I can't rely on myself	.72	
21. Nothing good can happen to me anymore	.70	
Self-Blame		
22. The event happened because of the way I acted	.55	
23. The event happened to me because of the sort of person I am	.68	
24. Somebody else would have stopped the event from happening	.53	
25. Somebody else would not have gotten into this situation	.63	
26. There is something about me that made the event happen	.43	
Negative cognitions about the world		
27. People can't be trusted		.47
28. I have to be on guard all the time		.49
29. You can never know who will harm you		.62

30. I have to be especially careful because you never know what can happen next	.73
31. The world is a dangerous place	.57
32. I can't rely on other people	.46
33. People are not what they seem	.72

Unlike the original version, the items were loaded on two factors rather than three factors with loading values higher than .40; those two factors explained 44% of the total variance. All items of the BLAME subscale were loaded with the items of the NGS subscale to form the first factor; the second factor was formed from the items of the NGW subscale and one item from the NGS subscale, this item was "*I can't stop bad things from happening to me*". Factor analysis resulted two factors solution which could be theoretically acceptable. Loading BLAME's items with NGS's items demonstrates that Iraqi people do not blame themselves when they have experienced traumatic events; particularly when these events are related to war and violence. Those traumatic incidents may lead to negative cognitions about self. "Why are we always exposed to traumatic events?" is a common question among Iraqis. Moreover, by examining the content of the item loaded on the second factor with NGW's items rather than with its original subscale, it can be clearly shown that Iraqis do not consider themselves responsible for their exposure to traumatic events. In fact, this is reasonable; as traumatic events in Iraq such as car bombs, roadside bombs, military attacks, and displacing are completely out of people's control. In contrast, the exposure to incidents like vehicle accidents and assaults, which are common traumatic events in the previous studies, may involve some level of personal responsibility. For example, a person is out late in an unsafe place and then exposed to assault, he/she may feel partly

responsible for his/her presence in such a place. Consequently, the PTCI with two subscales has been considered for further statistical analysis. The NGS subscale was comprised of 25 items (20 of NGS and 5 BLAME) and the NGW subscale was comprised of 8 (7 of NGW and 1 of NGS).

3.2.4.2.2 Internal Consistency

The PTCI demonstrated internal consistency; Cronbach's Alpha scores of PTCI and its subscales were .93, .95, and .74 for the total score, NGS, and NGW respectively.

3.2.4.2.3 Test-Retest reliability

To ensure that the PTCI was constant over time, 20 participants recompleted the scale after a time interval of 15 days. The correlations between the test and retest were .75, .86, and .78 for the total score, NGS, and NGW, respectively. These significant correlations show that the PTCI was reliable over time.

3.2.4.2.4 Correlations between PTCI and its subscales

There were significant correlations between the total score and the scores on the subscales. The correlation between the PTCI and NGS was .96 and the correlation between the PTCI and NGW was .44. These correlations suggest that the summation of all 33 item scores represents trauma-related cognitions and NGS forms the biggest part of the trauma-related cognitions. The correlation between both of the subscales was .18, although this correlation was significant, it was low. This reflects that these subscales are independent; therefore, in Iraqi participants, the trauma-related cognitions about self and world are independent of each other.

3.2.4.2.5 Discriminative Validity: Differences between Groups.

The PTCI's ability to differentiate between people with and without PTSD was examined. Depending on SPTSS scores, two groups of traumatised people were selected. The first group (n=147) were those who fully met self-report PTSD criterion on the DSM-IV and the second group (57) comprised of those who did not completely meet the criterion. A series of t-tests were performed to examine the differences between the groups. As can be seen in Table 3-25, all differences between the two groups were significant in PTCI total, and in the NGS, and NGW subscales. These significant differences illustrate the PTCI's ability to discriminate between people according to their PTSD symptoms and the clear relationship between trauma-related cognition and symptoms.

Table 3-25: t-tests, means, and Standard Deviations of PTC and its subscales for participants with and without PTSD.

	PTSD		
	Full Symptoms n=147	No Symptoms n= 57	
	M (SD)	M (SD)	t value
PTCI total	132.81 (38.38)	69.54 (23.46)	10.77***
NGS	3.90 (1.52)	1.67 (0.57)	9.92***
NGW	4.38 (1.11)	3.47 (1.48)	4.52***

***p<.001

The above statistical results provide evidence that the PTCI with two subscales was a valid and reliable instrument to measure trauma-related cognition. The Arabic version was consistent with previous studies in its ability to discriminate between people according to their trauma symptoms. Therefore, the Arabic version of PTCI (Appendix 6) was a suitable instrument to measure the changes in PTC before and after using the suggested self-help guide. Moreover, the PTCI can be used with people who are victims of war and

violence-related trauma as well as accidents, natural disasters, and interpersonal violence victims.

3.2.5 The Hospital Anxiety and Depression Scale (HADS)

The effects of traumatic experiences are not only confined to post-traumatic stress disorder (APA, 1994) but include other comorbid mental disorders, mainly depression and anxiety. For example, Person, Tracy, and Galea (2006) investigated the incidence of probable major depression and risk factors for depression in 2700 residents in New York six months after the attacks on the USA on 11th September 2001.

In Iraq, studies have shown that those who experience traumatic events reported trauma-related symptoms and related disorders, including both depression and anxiety. For example a national study conducted in Iraq between 2007 and 2008 found that 13.8% of 4332 Iraqi participants were diagnosed with anxiety disorders and 7.2% with major depressive disorder (Alhasnawi, et al., 2009).

The literature review clearly shows that when studying the effects after a traumatic event one should not only consider the trauma-related symptoms but should also consider symptoms of associated disorders such as depression and anxiety. To estimate the existence of depression and anxiety symptoms in this study, the hospital anxiety and depression scale (HADS) was used. HADS has been widely used for both general population and patient samples (e.g. Bjelland, Dahl, Haug, & Neckelmann, 2002; Caci, et al., 2003; Crawford, Henry, Crombie, & Taylor, 2001; Lewis & Wessely, 1990; Muszbek, et al.,

2005; Razavi, Delvaux, Farvacques, & Robaye, 1990; Tyrer, 2001). Different language versions of HADS have been developed (e.g. Abiodun, 1994; O. El-Rufaie, Albar, & Al-Dabal, 1988; O. E. el-Rufaie & Absood, 1987; O. E. F. El-Rufaie & Absood, 1995; Friedman, Samuelian, Lancrenon, Even, & Chiarelli, 2001; Herrero, et al., 2003; Herrmann, 1997; Matsudaira, et al., 2009{Montazeri, 2003 #838; Pais-Ribeiro, et al., 2007; Quintana, et al., 2003; Spinhoven, et al., 1997)}.

Zigmond and Snaith (1983) developed The Hospital Anxiety and Depression Scale (HADS) to detect anxiety and depression in people attending outpatient clinics who are physically ill. It was designed as a brief measure, and was limited to anxiety and depression as these are the most common mood disorders. The scale contains 14 items (seven items for each disorder), the items are listed in Table 3-26. Each item has a choice of four responses, the wording of which varied from item to item but are scored 0 to 3.

Table 3-26: Items of anxiety and depression subscales.

Anxiety Items	Depression Items
1. I feel tense or wound up	1. I still enjoy the things I used to enjoy
2. I get a sort of frightened feeling as if something awful is about to happen	2. I can laugh and see the funny side of things
3. Worrying thoughts go through my mind	3. I feel cheerful
4. I can sit at ease and feel relaxed	4. I feel as if I am slowed down
5. I get a sort of frightened feeling like "butterflies" in the stomach	5. I have lost interest in my appearance
6. I feel restless as if I have to be on the move	6. I look forward with enjoyment to things
7. I get sudden feelings of panic	7. I can enjoy a good book or radio or TV programme

Although HADS was designed for hospital settings, it has since been widely used with the general population. Abiodun (1994) conducted a study to validate the scale in nonpsychiatric general community settings. Seven hundred and

forty eight nonpsychiatric patients from clinics at the University of Ilorin Teaching Hospitals Complex and 330 people from the general population in Nigeria were recruited. General health Questionnaire GHQ-12/GHQ-30 and HADS were administered. The anxiety subscale had sensitivity ranging from 85% to 92.9% in the patient samples and 87.5% in the community sample. The sensitivity of the depression subscale ranged from 90.1% to 92.1% in the medical patients sample and 89.5% in the community sample. Regarding specificity, anxiety subscale scores ranged from 86.5% to 90.6%, while depression ranged from 86.6% to 91.2% and 91.1% in the patient sample and community sample respectively. It was concluded that the HADS was a valid instrument and can be used in nonpsychiatric and community settings. Moreover, it can be used in developing countries to examine morbidity. Another study in which participants were recruited from a representative nonclinical sample of the general adult UK population found that the HADS had acceptable reliability and that the two subscales were moderately correlated (Crawford, et al., 2001). Lewis and Wessely (1990) found that the HADS had the same ability as the 12-item GHQ to detect the cases of minor psychiatric disorders.

Bjelland, Dahl, Haug, and Neckelmann (2002) reviewed 747 papers that used the HADS and found a two-factor solution representing anxiety and depression. Cronbach's alpha ranged from 0.68 to 0.93 and 0.67 to 0.90 for anxiety and depression respectively. They concluded that HADS was a reliable and valid instrument in both hospital settings and the general population to assess severity of symptoms and caseness for anxiety and depression. Prior to this review, Herrmann (1997) reviewed more than 200 studies and found that

because the HADS was sensitive, it was an effective instrument to examine the changes both during the course of the disorder and during treatment.

The HADS was also a reliable instrument when used in other languages and populations; for example in: Spanish outpatients (Herrero, et al., 2003; Quintana, et al., 2003), a Swedish population sample (Lisspers, Nygren, & Soderman, 1997), a Norwegian general population (Mykletun, Stordal, & Dahl, 2001), Iranian patients (Montazeri, Vahdaninia, Ebrahimi, & Jarvandi, 2003), Hungarian patients (Muszbek, et al., 2005), Portuguese patients and general population participants (Pais-Ribeiro, et al., 2007) and Dutch outpatients (Spinhoven, et al., 1997).

El-Rufaie and Absood (1987) translated HADS into Arabic and sampled 50 Saudi patients. The scores were correlated with clinical examinations which showed significant positive correlations except for one item 'I get a sort of frightened feeling like "butterflies" in the stomach'. This may due to a translation problem as it was an idiomatic item. Apart from this item, they concluded that HADS was a reliable instrument and appropriate for screening anxiety and depression in Saudi patients in primary health care settings. The Arabic version was then used to estimate the prevalence rate of depression and anxiety in a sample of Saudi patients who was attending primary care clinics (O. El-Rufaie, et al., 1988). Later, El-Rufaie and Absood (1995) further examined its validity in a sample from the United Arab Emirates. They recruited 217 patients attending a primary health care centre. The participants were 16 years and above. Scores of anxiety and depression were evaluated using the HADS and then a single consultant psychiatrist interviewed all of the participants. The results showed that the HADS was internally consistent;

Cronbach's alpha was 0.88 for depression and 0.78 for anxiety. Positive and significant correlations were found for the item-total correlations and with the clinical assessment. The results showed that the Arabic version of the HADS was a valid measure to detect and assess potential anxiety and depression in primary health care settings.

Malasi, Mirza, and el-Islam (1991) studied two groups of 82 psychiatric patients (42 diagnosed with anxiety disorder and 40 with depression) and 53 participants of the general population in Kuwait. HADS clearly distinguished between patients and the control group at 79% and 87% for sensitivity and specificity respectively. In contrast, sensitivity and specificity were much weaker at differentiating between the patients themselves. The authors explained that these results were due to the large overlap between anxiety and depression. Accordingly, they suggested a unitary continuum of symptoms where the majority were mixed cases and the tails of the normal distribution represent the "pure" cases.

Although most studies have confirmed the original factor structure of the HADS, some studies have found alternative models, with both one and three factors. Razavi, Delvaux, Farvacques, and Robaye (1990) tested a one factor model with cancer patients. Similarly, Pais-Ribeiro et al. (2007) discussed whether the HADS can still be used as a two factor instruments when there was such a high correlation between them. Other studies have found a three factor model. For example, Caci et al. (2003) found three factors (anxiety with five items, depression with six items, and restlessness with 3 items which were items 4 and 6 of anxiety subscale and item 7 of depression subscale). Friedman et al. (2001) also found three factors (depression with seven items, anxiety with

four items, and psychomotor agitation with 3 items which were items 1,4, and 6 of anxiety subscale). In the Arab population, previous research supports the two factors model (O. E. el-Rufaie & Absood, 1987).

In addition to the evidence for diverse models, some studies found that some items either loaded on the wrong factor or loaded in both factors. Two review studies revealed in some studies that item 4 "I can sit at ease and feel relaxed" had either a low loading in its subscale and/or significantly loaded on the depression subscale (Bjelland, et al., 2002; Herrmann, 1997). Moorey et al. (1991) and Muszbek et al. (2005) found that item 4 "I can sit at ease and feel relaxed" was loaded on the depression factor rather than the anxiety factor. Matsudaira et al. (2009) tested 408 psychiatric outpatients and 1069 undergraduate students. They randomly split the data pool in half and performed an exploratory factor analysis; they then conducted multi-group analyses between the subgroups; outpatients vs. students and males vs. females. The results revealed that items 3 from the depression subscale, and item 4 from the anxiety subscale item, had significant loadings in both factors; 0.35 and 0.23 for item 3, and 0.26 and 0.39 for item 4, for the anxiety and depression subscales respectively. Although the authors stated that these loadings were significant, it was clear that the values were the lowest compared with the other items. The loading of item 4 was also higher on the depression subscale than its original subscale.

It can be concluded that the HADS is a reliable and valid instrument to screen anxiety and depression both in clinical and non clinical cases. Moreover, it can be administered both by practitioners and nonclinical researchers (Hamer, Sanjeev, Butterworth, & Barczak, 1991). With regard to the different factor

models; this may be due to the nature of participants or due to the statistical procedures used. Some researchers conducted principal components analysis on the two subscales together, while others conducted them separately.

The Arabic version of HADS translated by El-Rufaie (1987) was used in the current study. To ensure that this version was appropriate for the Iraqi population, five Iraqi psychologists and psychiatrists, as well as an Arabic language specialist were asked to judge whether the items were appropriate for the Iraqi community. They agreed that all items except one were suitable to be used with Iraqi participants. They suggested that the item (I get a sort of frightened feeling like "butterflies" in the stomach) needed to be changed because the phrase "butterflies in the stomach" is not known in Arabic culture. This item had previously been problematic in the Arabic version (O. E. el-Rufaie & Absood, 1987). The translation of this item was discussed with two Iraqi experts in psychiatry and English language. It was reworded to reflect the item content which is feelings of fear and tension.

3.2.5.1 Validation

After content validity was initially assessed by the Iraqi experts, statistical methods were employed to examine the validity of the measures.

3.2.5.1.1 Principal components analysis:

Most studies that validated the HADS conducted principal components analysis (PCA). Following the previous studies, PCA with varimax rotation was conducted to assess the underlying structure for the fourteen items of HADS. Three factors resulted from this analysis. The first factor (all items of depression subscale) accounted for 22.26% of the variance, the second factor

(six items of anxiety subscale) accounted for 22.29%, and the third factor (item 4 of anxiety subscale) accounted for 7.97%. Table 3-27 displays the items and factors loadings for the rotated factors, with loadings less than .40 omitted to improve clarity.

Table 3-27:Factor Loadings for HADS Items.

Items	Factors		
	1	2	3
Anxiety			
1. I feel tense or wound up		.65	
2. I get a sort of frightened feeling as if something awful is about to happen		.64	
3. Worrying thoughts go through my mind		.73	
4. I can sit at ease and feel relaxed			.90
5. I get a sort of frightened feeling like "butterflies" in the stomach		.59	
6. I feel restless as if I have to be on the move		.61	
7. I get sudden feelings of panic		.62	
Depression			
1. I still enjoy the things I used to enjoy	.66		
2. I can laugh and see the funny side of things	.72		
3. I feel cheerful	.43		
4. I feel as if I am slowed down	.55		
5. I have lost interest in my appearance	.56		
6. I look forward with enjoyment to things	.70		
7. I can enjoy a good book or radio or TV programme	.67		
% of variance	22.26	22.29	7.97

In line with the original structure of HADS, which comprised of two subscales, item 4 was removed and PCA was repeated for 13 items. Two factors were resulted explaining 47% of the variance. This had theoretical rationale where the scale aims to measure two disorders which are depression and anxiety. The first factor included all the depression items, and the second factor had six

items from the anxiety subscale. The items and factor loadings for the rotated factors, with loadings less than .35 omitted to improve clarity.

Table 3-28: Factor Loadings for HADS Items for The 13 items.

Items	Factor 1	Factor 2
Anxiety		.64
1. I feel tense or wound up		
2. I get a sort of frightened feeling as if something awful is about to happen		.65
3. Worrying thoughts go through my mind		.74
4. I get a sort of frightened feeling like "butterflies" in the stomach		.58
5. I feel restless as if I have to be on the move		.60
6. I get sudden feelings of panic		.63
Depression		
1. I still enjoy the things I used to enjoy	.66	
2. I can laugh and see the funny side of things	.73	
3. I feel cheerful	.44	
4. I feel as if I am slowed down	.54	
5. I have lost interest in my appearance	.56	
6. I look forward with enjoyment to things	.70	
7. I can enjoy a good book or radio or TV programme	.67	
% of variance	24.01	22.85

3.2.5.1.2 Internal Consistency

Cronbach's alpha was 0.70 for the anxiety subscale. Item-total statistics were computed, and are shown in Table 3-29. Item 4 "I can sit ease and feel relaxed" had no significant correlation with the subscale, and so was removed. Cronbach's alpha increased from 0.70 to 0.758 when the item was deleted, demonstrating that the subscale was more effective with 6 items.

Table 3-29: Item-Total Statistics for Anxiety Subscale Items.

Items	Item-Total	CAID
I feel tense or wound up	.38	.68
I get a sort of frightened feeling as if something awful is about to happen	.50	.65
Worrying thoughts go through my mind	.53	.64
I can sit at ease and feel relaxed	.03	.76
I get a sort of frightened feeling like "butterflies" in the stomach	.41	.67
I feel restless as if I have to be on the move	.51	.65
I get sudden feelings of panic	.57	.63

Note: Item-Total, correlation between item and the total minus item score; CAID, Cronbach's alpha of the total minus the item score

For the depression subscale, the same statistics were computed. Alpha for the subscale was 0.78. Table 3-30 shows that deleting any of depression subscale items decreases the alpha value, demonstrating that this subscale had high internal consistency.

Table 3-30: Item-Total Statistics for Depression Subscale Items.

Items	Item-Total	CAID
I still enjoy the things I used to enjoy	.55	.74
I can laugh and see the funny side of things	.47	.75
I feel cheerful	.45	.76
I feel as if I am slowed down	.45	.76
I have lost interest in my appearance	.52	.74
I look forward with enjoyment to things	.59	.73
I can enjoy a good book or radio or TV programme	.49	.75

Note: Item-Total, correlation between item and the total minus item score; CAID, Cronbach's alpha of the total minus the item score

3.2.5.1.3 Test-Retest reliability

To ensure that HADS was consistent over time, the scale was re-administered to 20 participants after a time interval of 15 days. The correlations between the

test and retest were 0.62 and 0.69 for the 6 item anxiety and the 7 item depression subscales, respectively. These significant correlations show that HADS was reliable over the time.

3.2.5.1.4 Discriminatory power of items of HADS and its subscales

The degree to which HADS items can discriminate between people with low and high levels of PTSD symptoms was examined. Depending on SPTSS' scores, two groups of traumatised people were selected. The first group (n=147) fully met PTSD criterion in the DSM-IV and the second group (57) comprised of those who did not meet completely the criterion.

The differences between these two groups for each item and also for the total subscale scores were calculated. Table 3-31 shows that all differences were significant apart from item 4 of the anxiety subscale. This shows that item 4 was not able to differentiate between people with and without PTSD symptoms.

Table 3-31: t-tests, means, and Standard Deviations of each item of HADS for participants with and without PTSD.

	PTSD		
	Full Symptoms n=147	No Symptoms n= 57	
Items	M (SD)	M (SD)	t value
Anxiety Subscale			
1. I feel tense or wound up	2.01 (0.66)	1.41 (0.78)	5.24
2. I get a sort of frightened feeling as if something awful is about to happen	2.16 (0.74)	1.21 (0.91)	7.27
3. Worrying thoughts go through my mind	2.32 (0.73)	1.14 (0.92)	9.10
4. I can sit at ease and feel relaxed	1.36 (0.86)	1.18 (0.89)	1.25*
5. I get a sort of frightened feeling like "butterflies" in the stomach	1.73 (1.13)	0.61 (0.78)	6.37
6. I feel restless as if I have to be on the move	1.97 (0.80)	0.95 (0.75)	7.79
7. I get sudden feelings of panic	1.90 (0.87)	0.75 (0.74)	8.25
Depression			
1. I still enjoy the things I used to enjoy	1.84 (0.90)	1.07 (0.78)	5.33
2. I can laugh and see the funny side of things	1.56 (0.88)	1.04 (0.99)	3.45
3. I feel cheerful	1.72 (0.74)	1.01 (0.81)	5.66
4. I feel as if I am slowed down	1.74 (0.77)	0.88 (0.61)	7.04
5. I have lost interest in my appearance	1.50 (1.02)	0.38 (0.76)	7.01
6. I look forward with enjoyment to things	1.56 (1.02)	0.81 (0.92)	4.51
7. I can enjoy a good book or radio or TV programme	1.54 (1.10)	0.84 (0.95)	3.97

Note: * all items are significant (p<.001), except this item.

The HADS was a reliable and valid instrument for screening depression and anxiety symptoms in the Iraqi population. The results demonstrate that while there was a good two factor solution corresponding to anxiety and depression, item 4 did not fit the anxiety subscale, as found in previous research (Bjelland,

et al., 2002). In addition, it did not discriminate between people with low and high levels of PTSD symptoms. It may be that the response to the item did not indicate anxiety in Iraqi participants because the people there can rarely feel relaxed because traumatic events in Iraq occur on an ongoing and repeated basis. It may be normal that people have become inured to the physiological reactions to fear. Therefore, the 13 item version (6 in anxiety subscale, 7 in depression subscale) was used in the next stage of the current study. Further research is needed to elucidate whether the problem is in the translation or the situation of the participants.

In conclusion, the HADS (Appendix 7) was an effective measure of anxiety and depression that can be used in nonclinical populations in the Arab world, specifically Iraq. It is a valuable tool for use in trauma research.

The current study provides psychometric information for a package of self-report scales that were used in the next stages of study. They also can be useful instruments in future works about traumatic events and their aftermath in Arabic speaking populations in general, and specifically in Iraq.

3.3 DISCUSSION

The results of validation of scales show different structures of some scales. The Brief Cope scale had originally 28 items in 14 subscales, but in the current study four subscales were excluded due to low internal consistency. These subscales were venting, acceptance, humor, and denial. Moreover, the remaining subscales were loaded on four factors. Two of them were positive: active coping and seeking support and two were negative: non problem focused coping and substance use. The PCTI scale had also a different structure of

subscales which were NGS and NGW, while the original structure had three subscales which were NGS, NGW, and BLAME. The HADS also was changed, where one item of the anxiety subscale was excluded.

The current study provides evidence that the scales were suitable to be used in an Iraqi population as they had significant indications of their reliability and validity.

4 Chapter 4: the prevalence rate of trauma and related symptoms and risk factors

The general aim of this chapter is to illustrate the extent to which traumatic events and trauma-related symptoms are spread among Iraqi university students in Baghdad as well as detect factors that affect the prevalence of symptoms. In line with the aim of the research, this chapter contains a study of the prevalence of traumatic events, PTSD, depression and anxiety symptoms as well as posttraumatic cognitions, coping strategies, and social support. Comparisons in these variables between sex and age groups were also conducted. Moreover, the variables that predict PTSD were examined.

To collect data, six self-report scales were validated to measure trauma history, post traumatic stress disorder, coping strategies, posttraumatic cognitions, depression and anxiety symptoms, and social support. Their psychometric properties were demonstrated in Chapter 3.

The responses of 505 participants, whose characteristics were described in Chapter 3, were analysed. To conduct comparisons between age groups, the participants were divided into two groups: 19-24 which is the regular age range in university and the second group included those who were 25 or older. Statistical tests, such as t-test, Chi-Square, two-way ANOVA, and a repeated measure ANOVA were used to examine the significance of differences according sex, age group and within subjects. Multiple regressions were also used to assess the predictor factors of PTSD.

4.1 TRAUMATIC EVENTS

First of all, examining PTSD requires detecting the prevalence of traumatic events and whether they meet DSM-IV criteria. Therefore, traumatic experiences of the participants were assessed using the BTHS. The BTHS included 20 events mainly focused on war and violence-related incidents. The participants were asked to report events that they have experienced either by themselves or their family member or friend, the frequency of them, and whether they felt distressed. The trauma related distressful emotions are intense fear, horror, or helplessness according to criterion A2 in DSM-IV.

4.1.1 The most frequent and distressful events:

The most frequent and distressful events were assessed and the results are shown in Table 4-1. This table presents the number of participants exposed to each incident, the number of those who felt distressed and the frequency of the event.

Table 4-1: Number of Participants Exposed and Distressed and Average of Frequencies Per Event.

Events	Exposed	Distressed	Average of times repeated
	N (%*)	n (%**)	
Aerial bombing	370 (73)	257 (69)	2.86
Losing someone closed to them	329 (65)	234 (71)	1.69
Watching authentic video clips depicting killing	238 (47)	136 (57)	2.34
Witnessing someone who had been killed or kidnapped	176 (35)	143 (81)	1.79
Car bomb	173 (34)	140 (81)	1.98
Roadside explosion	170 (34)	133 (78)	2.44
Migration or displacement	163 (32)	124 (76)	1.53
Sudden death of a family member	159 (31)	114 (72)	1.49
Shooting	154 (30)	115 (75)	3.39
Attack by military force	92 (18)	74 (80)	3.03
Politically motivated arrests	84 (17)	62 (74)	1.62
Hanging of a close relative or friend	76 (15)	59 (78)	1.50
Kidnapping	75 (15)	57 (76)	1.32
Severe Motor Vehicle accident	74 (15)	59 (80)	1.21
Robbery at gunpoint	70 (14)	49 (70)	1.19
Armed robbery	58 (11)	39 (67)	1.75
Physical torture	35 (7)	29 (83)	1.74
Attempt to kill	32 (6)	22 (69)	2.39
Chemical attack	3 (0.006)	3 (100)	1.00
Victim of rape/ sexual abuse	2 (0.004)	2 (100)	1.00

Note: exposed = number of participants who experienced each event; distressed = number of those who have experienced event and reported distress.*=number of exposed/505; **= number distressed/number of exposed.

The results showed that the majority of participants reported experiencing events such as aerial bombing (73%) and losing someone close to them (65%). Seven events were reported by around a third of participants; for example watching authentic video clips depicting killing, witnessing someone who had been killed or kidnapped, experiencing car or roadside bomb, and migration or displacement. Other events, such as attacks by military forces, politically motivated arrests, kidnapping, and the hanging of close relative or friend were reported by 10% to 20% of participants. Interestingly, compared with other

studies conducted in the west (Fawcett, 2007), a very small number of the participants, fewer than 2%, reported that they were exposed to rape or sexual abuse and chemical attacks. In terms of distressful events, the majority of the victims between (57% and 100%) reported feelings of distress when they were being exposed to incidents. The most distressful events from the most frequent events were seeing someone who had been killed or kidnapped and car-bombing; they were both reported as being distressing by 81% of participants exposed.

Most of the incidents were experienced by the participants more than once. The mean of occurring times for each event ranged from 1 to 3.39 times; the most frequent events were shooting and military attack.

To find out the events that were traumatic according to Criterion A in DSM-IV, the participants were asked to report whether they experienced fear, horror, or helplessness. Overall, 156 of 199 males (78%) and 268 of 306 females (88%) reported experiencing either by themselves or their family members or friends at least one event that met criterion A in DSM-IV. Accordingly, the responses of 81 (16%) participants who did not report traumatic events meeting DSM-IV PTSD criteria were excluded, while the responses of 424 participants were included in the next analysis series.

4.1.2 Type of Exposure

To examine the significance of the differences in the number of traumatic events that were experienced by the participants themselves and their family members or friends, the Chi-Square test was used; the results are presented in

Table 4-2. Only 2% of females reported no personally experienced events. The majority of females (71%) and more than half of males (55%) reported that they had experienced two to five events. In contrast, 43% of males, which was more than double of females (17%), reported experiencing 6 events or more, the differences were significant.

In terms of the number of events experienced by the participants' family members or friends, 51% of males and 29% of females did not report any event experienced by a family member or friend. On the other hand, 24% of each sex reported that a family member or friend experienced one event, while 24% males and 45% females reported experiencing two to seven events; these differences were significant.

Table 4-2: Numbers and percentages of Traumatic Events Experienced by Participants or Their Family Member or Friend.

		Number of traumatic events experienced				
		0 N(%)	1 N(%)	2-5 N(%)	6 or more N(%)	$\chi 2$
Self-exposure	Males	0 (0)	3 (2)	86 (55)	67 (43)	42.44***
	Females	6(2)	28 (10)	189 (71)	45 (17)	
Other-exposure	Males	79 (51)	37 (24)	38 (24)	2 (1)	23.60***
	Females	78 (29)	65 (24)	120 (45)	5(2)	

***p<.001

4.2 PTSD

To screen for PTSD, a 17-item scale (SPTSS) was administered. The scale included 17 items divided into three clusters: seven to measure avoidance and five items in each of the other clusters; hyper arousal and re-experience. The differences in PTSD between both sexes and age groups were examined. The results regarding number of participants who met PTSD criteria are presented in Table 4-3.

Table 4-3: The Numbers of Participants Who Met PTSD Criteria on DSM-IV.

Sex	No N (%)	Partially met N (%)	Fully met N (%)	χ^2
Males	15 (10)	105 (67%)	36 (23)	18.28***
Females	33 (12)	124 (47%)	111 (41)	
Age group 19-24	36 (11)	186 (54)	121 (35)	
25 or older	12 (15)	43 (53)	26 (32)	1.29

****p*<.001

The above table shows that the vast majority of participants reported at least one PTSD symptom. A third of them reported PTSD that fully met PTSD criteria in DSM-IV. In terms of sex, significant differences were found; two fifths of females reported symptoms that fully met PTSD criteria vs one fifth of males. In contrast, a similar percent of males and females reported no symptoms. Regarding age, no significant differences were found between the age groups.

In addition, the differences in PTSD symptom clusters between males and females and age groups were examined. Table 4-4 shows the number of participants who reported PTSD that met PTSD criteria per cluster according to sex.

Table 4-4: The Differences in PTSD Clusters between Males and Females.

Sex	Meet DSM-IV PTSD criteria:	Re-experience N (%)	Avoidance N (%)	Arousal N (%)
Males	No	45 (29)	108 (69)	38 (24)
	Yes	111 (71)	48 (31)	118 (76)
Females	No	68 (25)	136 (51)	80 (30)
	Yes	200 (75)	132 (49)	188 (70)
χ^2		0.61	13.79***	1.48

****p*<.001

As can be seen from the table, females reported significantly more avoidance symptoms than males. In contrast, there were no significant differences in other clusters; re-experience and arousal. The numbers of participants who reported re-experiencing and arousal symptoms from both sexes were higher than those who reported avoidance symptoms.

In terms of age, from Table 4-5, there were no significant differences between the age groups in all PTSD clusters neither in all participants nor in each sex group.

Table 4-5: The Differences in PTSD Clusters between Age Groups.

Age group	Meet DSM-IV PTSD criteria:	Re-experience N (%)	Avoidance N (%)	Arousal N (%)
19-24	No	86 (25)	197 (57)	92 (27)
	Yes	257 (75)	146 (43)	251 (73)
25 or older	No	27 (33)	47 (58)	26 (32)
	Yes	54 (67)	34 (42)	55 (68)
χ^2		2.29	0.01	0.91

The non significance of the differences between the age groups may because most of the participants were from same age group.

4.3 COPING STRATEGIES

The brief cope scale of 20 items was used to measure 4 coping strategies: seeking support, active coping, non problem focused coping, and substance use. A two-way analysis of variance tested the effects of sex and age on coping strategies used by participants. Means, standard deviations, and *F* ratios are presented in Table 4-6.

Table 4-6: Mean of Coping Strategies by Sex and Age.

Coping strategies	Age group	Males M (SD)	Females M (SD)	F ratio		
				Sex	Age	Sex X age
Seeking support	1	17.36 (5.97)	19.25 (5.37)	9.80**	1.05	0.91
	2	16.71 (4.18)	18.64 (6.47)			
Active coping	1	15.44 (5.17)	13.86 (4.94)	27.48***	0.65	5.45*
	2	17.14 (4.75)	13.03 (4.75)			
Non-problem focused coping	1	14.51 (3.29)	15.53 (3.31)	1.43	1.70	4.05*
	2	15.12 (3.67)	15.29 (3.00)			
substance use	1	2.51 (1.29)	2.58 (1.29)	2.23	1.14	1.03
	2	2.52 (1.08)	2.88 (1.57)			

Note: for age group; 1=19-24 years; 2=25 years or older
*p<.05; **p<.01; ***p<.001

In terms of sex, the results showed that females reported significantly more use of seeking support coping strategies than males. In contrast, males reported more use of active coping strategies than females. With regard to age groups, no significant differences were found in coping strategies. However, the male participants in the age group (25 or older) reported a higher level of active coping than any other age group in both sexes, and the female participants in the age group (19-24) reported a high level of non problem focused coping than any other age group in both sexes.

4.4 POSTTRAUMATIC COGNITIONS

The posttraumatic cognition inventory (PTCI) was used to assess traumatised participants' cognitions about self and the world. As described earlier, the PTCI is a 33-item inventory; 25 items to measure negative cognitions about self and eight items to measure cognitions about the world.

Table 4-7 presents the means and standard deviations of negative cognitions about self, world, and in total.

Table 4-7: Differences between Negative Cognitions about Self and Negative Cognitions about the World.

Posttraumatic Cognitions	Mean	S D
Negative cognitions about self	5.59	0.57
Negative cognition about the world	5.70	0.38
Total	107.03	36.90

To examine the extent to which posttraumatic cognitions were affected by sex and age, a two-way analysis of variance test was used. Means and standard deviations are presented in Table 4-8.

Table 4-8:Means of PTCI by Sex and Age.

	NGS		NCW		NGT	
Age group	Males M (SD)	Females M (SD)	Males M (SD)	Females M (SD)	Males M (SD)	Females M (SD)
19-24	5.15 (0.46)	5.78 (0.47)	5.86 (0.41)	5.60 (0.35)	173.31 (35.16)	183.10 (35.57)
25 or older	5.30 (0.51)	5.88 (0.57)	5.81 (0.46)	5.63 (0.23)	179.98 (38.53)	190.88 (36.66)
F ratio						
Sex	125.72***		29.04***		6.85**	
Age	5.23*		0.68		3.35	
Age*Sex	0.26		1.19		0.42	

Note. NGS= negative cognitions about self, NGW = negative cognitions about the world, NGT = the total of negative cognitions
* p< .05; ** p<.01; *** p<.001

It was found that females reported significantly higher negative cognitions about self than males and vice versa in negative cognitions about the world. Overall, females reported higher negative cognitions in total than males. According to the age groups, the participants aged 25 years or older

significantly reported higher negative cognitions about self than those in the 19-24 age group.

4.5 SOCIAL SUPPORT

Social support perceived by the participants and satisfaction with the social support were evaluated by a 13-item scale developed as a part of this study. Social support was evaluated according to three sources; the support perceived from family, friends, and/or governmental and nongovernmental organisations (GO-NGO).

To assess whether there were differences between the reported averages of the received support from the three sources, a repeated measures ANOVA test was conducted. The means and standard deviations for the support sources and satisfaction are listed in Table 4-9 which indicated that participants did report the support received from the three sources differently, F (2, 846) = 327.73, p<.001. In a parallel way, participants reported different levels of satisfaction with the support that they received, F (2, 1008) = 387.23, p<.001. Examination of these means suggests that participants showed more satisfaction with sources that provided more support than sources that provided less. In this case, they received more support from family and consequently reported more satisfaction. The statistical analysis revealed significant differences between the sources of social support in terms of perceived support and satisfaction with it, however the significance of these differences is limited as no normative data were available.

Table 4-9: Means and Deviations of Social Support and Satisfaction.

	Source	Mean	SD
Received sup ort	Family	29.26	10.46
	Friends	23.29	10.75
	G -NGO	12.53	4.06
Satisfaction with support	Family	5.3	2.34
	Friends	4.30	2.28
	GO-NGO	2.27	.91

A two-way analysis of variance was conducted to examine the effects of sex and age on reporting social support perceived and satisfaction of it. the results are presented in Table 4-10.

Table 4-10: The Means and Standard Deviations of the Perceived Social Support for Males and Females.

Age group	Family		Friends		GO-NGO	
	Males	Females	Males	Females	Males	Females
19-24 M	30.22	28.76	23.94	21.90	14.90	15.02
(SD)	(10.58)	(10.63)	(12.14)	(10.43)	(9.12)	(8.01)
25 or older M	29.77	28.72	26.13	19.94	17.61	16.30
(SD)	(9.49)	(10.09)	(10.47)	(10.79)	(10.01)	(9.54)
F ratio						
Sex	0.89		8.62**		0.29	
Age	0.03		0.01		3.26	
Sex * Age	0.02		2.19		0.42	

Note. GO-NGO = Governmental and nongovernmental organisations;
** p< .01

Male participants reported significantly higher perceived social support from friends than females. Consequently, they reported more satisfaction with social support received from friends (see Table 4-11). Although the differences in social support received from GO-NGO were not significant, the differences between males and females were significant; males were higher. In addition, the interaction between sex and age groups was significant in satisfaction with perceived support from GO-NGO.

Table 4-11: The Means and Standard Deviations of the Satisfaction with Social Support for Males and Females.

Age group		Family		Friends		GO-NGO	
		Males	Females	Males	Females	Males	Females
19-24	*M*	5.44	5.17	4.62	4.45	2.80	2.59
	(SD)	(2.27)	(2.49)	(2.56)	(2.26)	(1.67)	(1.42)
25 or older	*M*	5.74	5.30	4.74	3.48	3.13	2.08
	(SD)	(2.66)	(2.38)	(2.72)	(2.11)	(1.93)	(0.40)
F ratio							
Sex		1.33		5.75*		11.46***	
Age		0.488		2.020		0.228	
Sex * Age		0.077		3.294		5.032*	

Note. GO-NGO = Governmental and nongovernmental organisations
* *p*< .05; ** *p*< .01; *** *p*<.001

4.6 DEPRESSION AND ANXIETY

To screen depression and anxiety symptoms, the HADS was used. The cut-off points of the original scale were used to divide the participants into depression and anxiety categories. These cut-off points were (1-7) normal, (8-10) cause for concern, and (11-21) probable clinical case requiring assessment.

Table 4-12 compares the results of HADS between males and females.

Table 4-12: Differences between Males and Females in Depression and Anxiety Categories.

		Categories			
		Normal n (%)	Cause to concern n (%)	Probable clinical case n (%)	χ^2
Depression	Males	91 (58)	44 (28)	21 (14)	14.23***
	Females	123 (46)	66 (25)	79 (29)	
Anxiety	Males	75 (48)	40 (26)	41 (26)	5.07
	Females	99 (37)	82 (31)	87 (32)	

***p<.001

Overall, a half of the participants reported a normal level of depression and anxiety symptoms respectively. Therefore, the rest of them reported symptoms

that at least caused concern in both depression and anxiety. The differences between males and females were significant in depression; females had a higher level of symptoms than males, while not in anxiety.

Regarding age, no significant differences in depression and anxiety were found between the age groups; the results are shown in Table 4-13.

Table 4-13: Differences between Age Groups in Depression and Anxiety Categories.

		Categories			
		Normal n (%)	Cause to Concern n (%)	Probable Clinical Case n (%)	χ^2
Depression	19-24	175 (51)	88 (26)	80 (23)	
	25 or older	39 (48)	22 (27)	20 (25)	0.22
Anxiety	19-24	141 (41)	101 (29)	101 (29)	
	25 or older	33 (41)	21 (26)	27 (33)	0.61

To examine to what extent participants who report PTSD report depression and anxiety as well, Chi-square was used to test the significance of differences in reporting PTSD and depression and anxiety symptoms. The results are displayed in Table 4-14.

Table 4-14: Differences between PTSD Groups in Depression and Anxiety Categories

		Categories			
	PTSD met DSM-IV	Normal n (%)	Cause to Concern n (%)	Probable Clinical Case n (%)	χ^2
Depression	No	34 (71)	8 (17)	6 (12)	
	Partially	140 (61)	67 (29)	22 (10)	89.35***
	Fully	40 (27)	35 (24)	72 (49)	
Anxiety	No	38 (79)	8 (17)	2 (4)	
	Partially	110 (48)	70 (31)	49 (21)	82.65***
	Fully	26 (18)	44 (30)	77 (52)	

***p<.001

The table shows that most of participants who reported no PTSD reported a normal level of depression and anxiety symptoms. Similarly, around a half of participants who reported PTSD that partially met DSM-IV reported normal levels of depression and anxiety symptoms. In contrast, a minority of participants who reported PTSD that fully met DSM-IV reported a normal level of both depression and anxiety, while the rest reported symptoms at least causing concern and majority of them reported symptoms which form probable clinical cases and require further assessment of both depression and anxiety. Interestingly, a half of participants who reported symptoms that fully met PTSD criteria also reported depression and anxiety symptoms that could be probable clinical case and need further assessment. This reflects a significant link between PTSD and depression and anxiety. The differences in depression and anxiety symptoms between participants whose PTSD fully, partially, or did not meet PTSD were significant.

4.7 DISCUSSION OF THE PREVALENCE RATE OF TRAUMA AND RELATED SYMPTOMS AND RISK FACTORS

The results clearly show that the vast majority of participants (84%) reported experiencing at least one traumatic event. The most reported events were aerial bombings and losing a person close to them. In addition, six events were reported by at least a third of participants. These incidents were watching authentic video clips depicting killing, witnessing someone being killed or kidnapped, a car bomb, a roadside explosion, migration or displacement, and the sudden death of a family member. In terms of number of personally

experienced incidents, nearly all participants (98% of males and 94% of females) reported that they personally experienced more than two traumatic events. This shows that the majority of them met the A criterion of PTSD.

Consequently, most of them reported at least some symptoms that met PTSD criteria. Significant differences were found between males and females in PTSD. Women significantly experienced more symptoms than men. Although these symptoms were self-reported, they cannot be ignored; especially as they are consistent with the results of other Iraqi studies (Abdel-Hamid, et al., 2004; Natik Al-Kubaisy & Al-Kubaisy, 2007, 2010; Natik Al-Kubaisy & Alasdi, 2004; Tarik F Al-Kubaisy, et al., 1995). It is worth stating that avoidance symptoms were less reported; this highlights that the difficulty of avoidance in nonpost situations like those that have occurred in Iraq.

In terms of coping strategies, females reported higher levels of seeking support than males. Males in general and especially those who were aged 25 years or older reported more use of active coping than females and also than males in the age group (19-24). The youngest females showed a high level of non problem focused coping. Although there is no normative data for comparison, the participants reported less substance use, with no significant differences found neither between the two sexes nor between age groups.

In addition, the results show that females reported higher negative cognitions about self and in total cognitions (about self and the world together) than males, while males reported higher negative cognitions about the world than females. With regard to social support, there generally were no significant differences neither between the two sexes nor between the age groups, except males reported more social support received from friends than females.

The results show that most of participants who reported symptoms that fully met PTSD criteria, also reported high levels of depression and anxiety symptoms. This indicates that the high probability of the association between PTSD and depression and anxiety. Therefore, it may be possible that an intervention programme to help people overcome PTSD could lead to reduce the depression and anxiety symptoms as well.

4.8 A MODEL FOR PREDICTING PTSD

Exploring variables that predict PTSD can be the first step to develop an intervention programme. The comparisons between females and males that were conducted in a previous stage of this study revealed significant differences in exposure to traumatic events, PTSD, coping strategies, social support, and posttraumatic cognitions. Therefore, producing a model for each sex as well as for the whole sample of participants was considered. To find out the best combinations of variables for predicting PTSD, variables, such as trauma history, coping strategies, social support, and posttraumatic cognitions as well as age and sex were used in multiple regression analysis with stepwise methods for the all participants and for males and females separately. Variables of satisfaction with social support received from the three sources, family, friends, and GO-NGO, were excluded due to high correlations with variables of social support received.

4.8.1 Variables predicting PTSD in all participants

Aiming to explore predictor variables of PTSD for the participant regardless of sex, the data of 424 participants were entered in a multiple regression analysis with stepwise method. A model of seven variables was produced which included coping strategies, such as active coping, non problem focused coping, and seeking support, traumatic events experienced by participants themselves and their family members or friends, social support received from family and negative cognitions about self. The means, standard deviations, and inter-correlations are presented in Table 4-15.

Table 4-15: Means, Standard Deviations, and Intercorrelations for PTSD and Predictor Variables.

	M	SD	1	2	3	4	5	6	7
PTSD	53.93	30.16	-.36**	.36**	.30**	.32**	.18**	-.28**	-.23**
Predictor variables									
1-Active coping	14.54	5.10		.04	-.01	-.10*	.09	.37**	.44**
2-Non-problem focused coping	15.27	3.14			.17**	.18**	.03	.02	.13**
3-NGS	2.85	1.35				.07	.09	-.09	-.08
4-TE-P	2.91	1.77					.06	-.03	-.01
5-TE-C	1.24	1.55						.03	.05
6-SSFamily	29.26	10.46							.34**
7-Seeking support	18.37	5.63							

Note. TE-P = traumatic events experienced by participants themselves; TE-C = traumatic events experienced by participants' family member or friend; NGS = negative cognitions about self; SSFamily = social support received from family.
*$p<.05$; **$p<.01$

This combination of variables significantly predicted PTSD. The beta weights are shown in Table 4-16.

Table 4-16: Multiple Regression Analysis Summary of Variables Predicting PTSD.

Variables	B	Std. Error	β
Active coping	-1.57	.25	-.28***
Non-problem focused coping	2.64	.33	.31***
NGS	4.40	.86	.20***
TE-P	3.48	.65	.20***
TE-C	3.41	.73	.18***
SSFamily	-0.37	.12	-.13**
Seeking support	-0.51	.23	-.10*
(Constant)	47.77	6.27	

Note. R^2 = .53; $R^2_{ADJ} = .51$; F (7,415) = 43.54, p <.001; TE-P = traumatic events experienced by participants themselves; TE-C = traumatic events experienced by participants' family member or friend; NGS = negative cognitions about self; SSFamily = social support received from family.
**p<.01; ***p<.001

The beta weights suggest that coping strategies were the most common predictors of PTSD. For example, non problem focused coping and active coping contributed -.31 and -.28 respectively. The R^2_{ADJ} was .51 which indicates that this combination of variables can explain 51% of the variance in PTSD.

4.8.2 Variables predicting PTSD in females

The data for 268 females who reported experiencing traumatic events were used for multiple regression analysis. The means, standard deviations, and inter-correlations are shown in Table 4-17.

Table 4-17: Means, Standard Deviations, and Inter-correlations for PTSD and Predictor Variables in Female Participants.

	M	SD	1	2	3	4	5	6	7
PTSD	60.53	30.61	.39**	-.32**	.38**	.35**	-.32**	-.26**	.20**
Predictor variables									
1-Non-problem focused coping	15.47	3.09		.024	.14*	.14*	-.04	.12*	.11
2-Active coping	13.66	4.92			-.07	-.14*	.33**	.48**	.07
3-TE-P	3.21	1.85				.12	-.06	-.09	.15*
4-NGT	106.5	35.93					-.15*	-.11	.15*
5-SSFamily	28.75	10.51						.27**	-.05
6-Seeking support	19.10	5.65							.04
7-TE-C	1.31	1.60							

Note. TE-P = traumatic events experienced by participants themselves; TE-C = traumatic events experienced by participants' family members or friends; NGT = negative cognitions in total; SSFamily = social support received from family.
**p<.05;* ***p*<.01

The analysis resulted in a combination of seven variables. non problem focused coping, traumatic event experienced by participants themselves and by their family members and friends, and negative cognitions in total (about self and the world) predicted a high level of PTSD.

Coping strategies including active coping and seeking support, and perceived social support from family contributed in a low level of PTSD. These variables significantly predicted PTSD.

The beta weights are presented in Table 4-18 that shows that the highest contribution in PTSD is from non problem focused coping, traumatic events experienced by participants themselves, and negative cognitions in total. While the least contribution is from the number of incidents that were experienced by

family members and friends. Overall, these variables explained about 56% of PTSD variance ($R^2_{ADJ} = .56$).

Table 4-18: Multiple Regression Analysis Summary of Variables Predicting PTSD in Female Participants.

Variables	B	Std. Error	Beta
Non-problem focused coping	2.93	.42	.33***
Active coping	-1.01	.33	-.17**
TE-P	4.28	.78	.26***
NGT	.17	.04	.20***
SSFamily	-.49	.14	-.17**
Seeking support	-.73	.28	-.14*
TE-C	1.89	.90	.11*
(Constant)	40.54	8.92	

Note. R2 = .58; $R^2_{ADJ} = .56$; F (7,260) = 31.24, p <.001;
TE-P = traumatic events experienced by participants themselves; TE-C = traumatic events experienced by participants' family members or friends; NGT = negative cognitions in total; SSFamily = social support received from family.
*p<.05; **p<.01; ***p<.001

4.8.3 Variables predicting PTSD in males

Again, multiple regression analysis with stepwise method was conducted in the sample of males (*N*= 156) by entering the same variables. Unlike females, five variables were found to form a combination to predict PTSD in males: coping strategies, which were seeking support, non problem focused coping and active coping, traumatic events experienced by participants themselves, and negative cognitions about self. The means, standard deviations, and inter-correlations are presented in Table 4-19. This combination significantly predicted 40% of PTSD variance where $R^2_{ADJ} = .40$, F (6, 149) = 18.85, p <.001.

Table 4-19: Means, Standard Deviations, and Inter-correlations for PTSD and Predictor Variables for Male Participants.

	M	SD	1	2	3	4	5
PTSD	42.59	25.76	-.37**	.28**	.26**	-.32**	.12
Predictors Variables							
1- Seeking support	17.13	5.39		.111	-.07	.55**	.03
2-Non-problem focused coping	14.92	3.30			.16*	.11	-.12
3-NGS	2.75	1.37				-.17*	.02
4-Active coping	16.05	5.08					.18*
5-TE-P	1.11	1.45					

Note. NGS = negative cognitions about self; TE-P = traumatic events experienced by participants themselves.
*$p<.05$; **$p<.01$

Table 4-20 shows the beta weights of predictor variables. As it can be seen from the table, non problem focused coping (β= .32) had the most contribution and then active coping (β= -.31) and negative cognitions about self (β= .26).

Table 4-20: Multiple Regression Analysis Summary of Variables Predicting PTSD in Male Participants.

Variables	B	Std. Error	Beta
Seeking support	-1.07	.39	-.22**
Non-problem focused coping	2.31	.49	.32***
NGS	4.42	1.30	.24**
Active coping	-1.48	.39	-.31***
TE-P	3.86	1.20	.22**
(Constant)	50.81	8.31	

Note. $R^2 = .42$; $R^2_{ADJ} = .40$; F (5,149) = 13.32, $p < .001$; NGS = negative cognitions about self; TE-P = traumatic events experienced by participants themselves.
*$p<.05$; **$p<.01$; ***$p<.001$

It can be noticed there was a significant high correlation between active coping and seeking support in all three models. Although they are related but they are not same as active coping contains cognitive strategies while seeking support includes social strategies. This indicates that could support each other. A

person could actively cope with traumatic stress if he/she uses the available support resources.

4.9 DISCUSSION

The findings of the predictive models of PTSD generally provide evidence to support the suggested model. The vast majority of those who were exposed to traumatic events reported symptoms that met PTSD criteria either fully or partially. For all the participants (total model), the results show that PTSD could be predicted by variables, such as number of traumatic events either experienced personally or by family members or friends, coping strategies (active coping, non problem focused coping, and seeking support), negative cognitions about self, and the perceived social support from family.

Age was not a predictive variable as the current study assumed. A possible explanation is that the vast majority of participants were in the same age group; between 19 to 24 years old. The variable of mental health history did not appear as a predictor because the data of participants with such history were excluded.

Figure 4-1 presents the relationship between the risk factors and PTSD. It clearly shows that the total model is quite comprehensive. It supports the theoretical assumption of this study, where coping strategies, negative cognitions and social support are essential in developing PTSD. It suggests that overcome and/or prevent maintaining PTSD could be impacted by the changes in these variable.

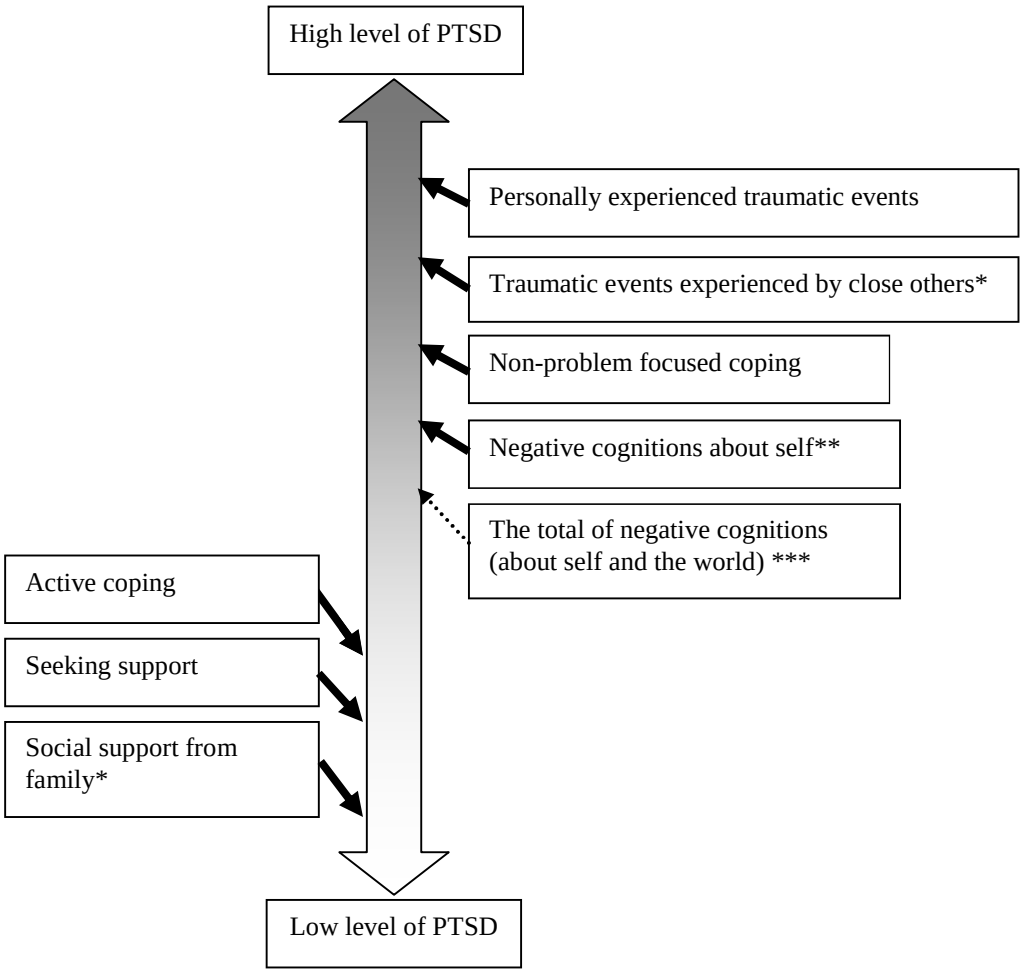

Figure 4-1:The predictor Model of PTSD

These findings are quite similar to those that resulted from the data of female participants, except the total of negative cognitions about self and the world instead of negative cognitions about self. The similarity between the total model and the female model may be due to the fact that two thirds of participants were females. For male participants, five variables of the total model seem to be predicting PTSD. The excluded variables were traumatic

events experienced by family members and friends, and social support from family. This may reflect the independency that males have where they are educated via a socialization process to be responsible for their family and present the support rather than receive it. This is supported by another result of the current study where male participants, compared with females, reported more social support perceived from their friends.

Regardless of whether the model is for all participants or for either sex, a high severity of PTSD could be predicted by non problem focused coping, negative cognitions about self, and number of experienced traumatic events. In contrast, a low level of PTSD could be predicted by coping strategies, such as active coping and seeking support, and social support perceived from family.

In conclusion, coping strategies are key variables in predicting PTSD as well as negative cognitions about self and social support from family. Consequently, enhancing the coping sources (health and energy, positive beliefs, problem-solving skills, social skills, and social support) should improve a person's ability to select active coping skills and increase a sense of control and the positive beliefs of self-competence. This could play an essential role in reducing the severity of PTSD or prevent them from becoming chronic. Therefore, as it is hypothesised in the current study, a self-help guide could effectively enhance these coping sources and provide psychoeducation information to facilitate the normality of experienced symptoms following a traumatic event.

5 Chapter 5: Developing the Self-Help Guide

This chapter aims to describe the procedures of developing a self-help guide for traumatized people in Iraq. It is comprised of a number of sections including an overview of self-recovery, the role of self-help materials in treating mental disorders, evaluation of self-help materials, and finally procedures of developing the self-help guide.

5.1 SELF-RECOVERY

People who have experienced a traumatic event may try to return to their former state before the trauma without professional help. The concern is that self-recovery may be possible when people have experienced one traumatic incident and then they might live in a quiet and secure environment. This is totally different from the situation in Iraq where traumatic events have been occurring repeatedly and on an ongoing basis. Therefore, mitigating acute distress and preventing the spread of mental disorders (e.g. PTSD) may need developing intervention programmes. Moreover, it is vital to identify the victims who are unlikely to improve on their own and factors relating to this. According to the results in Chapter 4, the predictors of low PTSD included the coping strategies, which were active coping and seeking support, as well as social support received from family. In contrast, high PTSD was predicted by coping strategies including non problem focus coping, negative cognitions about self and number of experienced events.

As stated in Chapter 1, mental health services in Iraq have a large range of challenges due to the widespread nature of traumatic events and related

symptoms, and a dramatic shortage of mental health care workers and institutions as well as the high costs of professional therapy and the negative attitudes towards psychotherapy. Therefore, a self-help guide could be a reasonable instrument to help recovering traumatized people and/or prevent trauma-related symptoms from developing to a chronic case.

5.2 SELF-HELP GUIDE

Intervention programmes such as CBT and EMDR can have a significant impact on decreasing PTSD. Unfortunately, due to the reasons mentioned above these treatments are not widely available in Iraq for those who need them. Therefore, it is important to develop and promote accessible ways to help people to cope with traumatic events and overcome distressing experiences. The suggested intervention is a self-help guide to provide information within a psychoeducation framework and learn new skills to cope with traumatic experiences. A self-help guide can be useful because it can be available and accessible for a large number of people. The guide is to help people to deal with traumatic events and to overcome the effects of traumatic incidents. Christensen and Jacobson (1994) state that nonprofessional therapies such as self-help books deserve further research due to promising empirical evidence that support their effectiveness; for example, Durlak (1979), Gould and Clum (1993), and Scogin et al. (1990). Furthermore, Christensen and Jacobson (1994) pointed out that there are reasons which make the use of the paraprofessional therapies unavoidable, and consequently, worthy of study. These reasons are that the available professional therapies do not meet the needs, and that professional therapy is very costly. In addition, studying

these therapies can expand psychotherapy's theoretical base. The conclusion of these reasons was based on data that were collected in developed countries such as the USA, where mental health services are widely provided. In Iraq, these reasons have much more importance because of the increasing need for therapy and the nature of traumatic events. Moreover, the results of the current study showed that 54% of the participants partially met PTSD criteria; therefore, the guide may be appropriate for them to ensure they do not develop full PTSD.

The main purpose of self-help books, according to Rosen (1987), is to help people help themselves. Moreover, Pardeck (1991) summarised that the purposes of bibliotherapy are providing information and insight, arousing discussion about problems, presenting new attitudes and new values, creating consciousness that the problem is common, and providing solutions to problems. He also mentioned that the self-help books should be used as an adjunct treatment tool rather than the sole treatment approach.

5.3 AIMS AND COMPONENTS OF SELF-HELP BOOKS

Halliday (1991) examined the use of self-help books by adult psychotherapy patients. He asked 100 patients (47 men, 53 women, with ages ranging between 18 and 64) to describe their use of psychological self-help books and to what extent they had been harmed or helped by these books. He found that 43 reported reading such books. only four people reported experiencing harm from their reading, in contrast, 37/43 (86%) patients reported that reading psychological self-help books was useful. The achieved benefits

included 1) positive attitudes, 2) encouragement, 3) recommending seeking professional help, 4) providing general self-understanding, 5) understanding certain cases, such as anxiety, depression, and stress, 6) normalization, and 7) relaxation techniques. These reported benefits demonstrate what a self-help guide should include. Accordingly, a self-help book should deal with a specific case (e.g. traumatic stress) and include information that help traumatised people to understand traumas and their aftermaths, encourage them to cope effectively with traumatic experiences rather than only avoiding the related emotions, and show the normality of having trauma-related symptoms. It should also contain skills to cope with traumatic experiences, and recommend resources for further help and information.

In terms of the principles of developing a self-help book, Glasgow and Rosen (1978) suggested that there are three issues which should be considered in developing a self-help book: 1) whether the book targets one component or multi-components, 2) the people who will use it, and 3) how it can be evaluated. In addition, Rosen (1987) presented some principles that were suggested by the APA Task force on Self-Help Therapies (1978); self-help programmes should be developed by psychologists, meet recognized standards, and clearly state limitations and benefits. Furthermore, Rosen (1981) implicitly advised some criteria that the author of the self-help book should consider: 1) the book's title or contents should reflect its claims, 2) it should provide accurate information regarding how the self-help programme is empirically supported, 3) it have self-diagnosis, and 4) it should use empirically supported techniques. These criteria can be used as a method to assess the self-help book

during its development procedures.

5.4 EVALUATION OF SELF-HELP BOOKS

A self-help guide (SHG) may be a significant source of psychological help for traumatised people in Iraq. The main reasons are that SHGs can be accessible and affordable for most people, providing insight of traumatic experiences, and helping traumatised people to have a real knowledge of their symptoms, and how to overcome them.

To evaluate the effectiveness of a self-help book, Redding et al. (2008) suggest five subscales to evaluate self-help books. These are, first, a psychological science subscale which included items to assess whether the book's contents, diagnosis, and treatment are grounded in psychological theory. Second, a reasonable expectations subscale comprised of items to evaluate the promises, benefits, and limitations of the book. Third, a specific guide subscale that focused on the book's target, whether it deals with one or more specific problems or provides a general approach. Fourth, an iatrogenic advice subscale to evaluate to what extent the book may be harmful. Finally, an overall usefulness subscale to rate the usefulness of the book. Pantalon et al. (1995) also indicated, according to their clinical experiences, that a beneficial self-help book would have characteristics, such as 1) a goal-directed approach, 2) understandable writing, 3) the provision of numerous exercises and encouragement, 4) a clear, and brief description of symptoms and diagnoses, 5) treatment focusing on one problem at a time, 6) measurements of change, 7) daily assignments, 8) preparation for setback/failure, 9)

research support for the book's contents, and 10) inclusion of many case examples to help the reader link his case with one of them.

In terms of limitations of self-help books, according to Redding et al.'s (2008) findings, there were two limitations of self-help books. Firstly, they were more effective when they targeted a particular problem, but they may fail to deal with comorbidity of problems which is common a part of psychopathology. Secondly, the paucity of scientific research directly evaluating the effectiveness of self-help books. Therefore, the effectiveness of self-help books should be proved by a scientific research and these books should highlight the potential comorbidity of conditions and their interference with the intervention programme. Some issues were highlighted to be considered by authors of self-help books to overcome these limitations. Firstly, they should be sure that the book is not going to be harmful, and therefore, it should not be published unless it has been supported by research of the conditions that make the book helpful and useful. Secondly, self-help books should provide differential diagnosis, ongoing self-assessment, relapse preventions, advice to seek professional therapy when it is necessary, clear instructions, and user-friendly guidelines for implementing self-help techniques. Thirdly and finally, the incorporated approaches should be, as much as possible, grounded in the best available scientific evidence.

To assess the extent to which a self-help book is useful and scientifically grounded, Redding et al. (2008) suggested subscales that can be used to rate self-help books by experts. These subscales included items to evaluate:

1. The consistency of the etiological factors described and the self-help techniques with psychological theory and research.

2. The extent to which the authors articulate reasonable expectations about the benefits to expect from self-help therapy, advise the readers when they may need to seek professional help, and prepare them for the possibility of setbacks and failures.
3. How well the guide provides a detailed and accurate guidance for the reader to self-diagnose, implement and practice the self-help techniques, and measure their progress.
4. The extent to which readers are made aware of the potential harmfulness of the provided advice.
5. The overall usefulness including recommending the guide to clients, whether it is helpful and whether it is grounded in psychological science and accessibility.

Key criteria can be concluded to review self-help books. Of these, first, a book's contents should be consistent with psychological theory and research. Second, express reasonable expectations of the book's benefits and provide contact information for further professional help in case the book does not work properly for the readers. Third, provide an applicable guide for self-diagnose, practice self-help skills, and measure the progress. Fourth, make the readers aware of the potential harmful of the provided information.

5.5 A REVIEW OF SELF-HELP BOOKS

A number of common self-help books that target trauma survivors were reviewed to highlight their common contents, type of trauma, and targeted people. In addition to review the guide's contents by a group of Iraqi

psychiatrists and psychologists, the review of self-help books could provide a reasonable ground for the current guide. Self-help books that target PTSD were searched via Amazon, Google, articles that reviewed self-help books, and a website of the guide to self-help books. Most of the accessible books were reviewed and present in Table 5-1.

Table 5-1: Self-Help Books

Understanding Trauma: How to Overcome Post-Traumatic Stress (Baker, 2010)
Understanding Traumatic Stress (N. C. Hunt & McHale, 2010)
Life after trauma, a workbook for healing (Rosenbloom, Williams, & Watkins, 2010)
Post Traumatic Stress, a self-help guide (Element, 2008)
Moving on after trauma, a guide to survivors, family and friends (Scott, 2008).
Healing from Trauma: A Survivor's Guide to Understanding Your Symptoms and Reclaiming Your Life (Cori & Scaer, 2007)
Understanding your reactions to trauma: a guide for survivors of trauma and their families (Herbert, 2007).
The PTSD workbook: simple, effective techniques for overcoming traumatic stress symptoms (Williams & Poijula, 2002)
The Post-Traumatic Stress Disorder Sourcebook: A Guide To Healing, Recovery, and Growth (Schiraldi, 2000)
Overcoming Traumatic Stress: Self-Help Guide Using Cognitive Behavioral Techniques (Herbert & Wetmore, 1999).
Waking the Tiger - Healing Trauma (Levine & Frederick, 1997)
I can't get over it, a handbook for trauma survivors (Matsakis, 1996)

These books were written by therapists, health, or clinical psychologists. Hence, these books are based on their psychological background and experiences in psychological therapy research. Moreover, some of them clearly

stated that their books were based on the results of research and experiences of working with traumatised people (e.g. Baker, 2010; N. C. Hunt & McHale, 2010; Rosenbloom, et al., 2010; Schiraldi, 2000). Most of them stated that these books are helpful but sometimes the reader may need to seek professional therapy and therefore all of them provided contact information of professional help providers. Some of them did not provide a clear guide for self-diagnose and measurement progress (e.g. Cori & Scaer, 2007; Herbert, 2007; N. C. Hunt & McHale, 2010). Some of them, such as Baker (2010), Rosenbloom et al. (2010), and Herbert (2007) made a clear statement about the potential harmfulness of their books and advised the readers about what they do in these cases; either stopping read the book and try again later, or seeking professional help.

Most of the authors stated that these books are not an alternative to professional help especially when it is necessary. None of the books target a particular type of trauma; instead, they deal with all types of traumatic experiences including war, sexual rape, and violence. They are also not stated as appropriate for a certain gender. Generally, all books focus on providing information to understand trauma, trauma-related symptoms and how to deal with the aftermath of trauma. In addition, all of them provide information about other helpful resources and contact information.

Nevertheless, all these books have been developed in cultures that are very different from the Iraqi culture. In addition, although the books were written to be used by the survivors of various traumas, these traumas are not similar to these occurring in Iraq. Some of these books assumed implicitly that people have adequate information about traumatic stress. The suggested resources in

these books for further information were in the English language, and the professional help resources are located in the western population. Therefore, it was essential to develop a guide that can rely on these books but also take several variables in account. Of these, the nature of traumatic events that Iraqi people have experienced, the lack of information sources about traumatic stress that available in Arabic language, and providing skills to deal with ongoing traumas along with applicable self-diagnosis to assess the progress during the use of the guide.

5.6 DEVELOPING A SELF-HELP GUIDE

To develop self-help materials, Febbraro and Clum (2008) suggest that self-help treatments can be based on theories of self-regulations of Bandura (1986) and Kanfer (1975) as cited in (Febbraro & Clum, 2008). They describe three stage of self-regulation. Firstly, self-monitoring which contains providing the information needed for a person to establish realistic goals. In the current guide, information was provided about traumatic events, trauma-related symptoms, coping skills. In addition, this stage includes providing information for evaluating the user progress toward his/her goals. The SHG had self-diagnosis to assess the current status and also the progress gained during the use of the guide. Second stage is the self-evaluation. In this stage, current behaviours are compared with standards. Using the SHG can help traumatised people to evaluate behaviour (coping skills) that they already use to deal with traumatic experiences and compare them with these were provided in the guide. Thus, people may empower these active coping strategies and reduce the

non problem focused coping. The last stage is self-reinforcement; based on their performance, people either punish or reward themselves. According to Bandura (1991) people pursue actions that create positive self-reactions and desist from behaving in ways that lead to self-censure. For the SHG, using the problem-focused coping could reduce trauma-related symptoms and enhance their abilities to deal with traumatic stress and that may encourage people to use such coping rather than non problem-focused coping.

This study aimed to develop a self-help guide with a target of achieving benefits including positive attitudes, encouragement, recommending seeking professional help when it is necessary, understand traumatic experiences and related symptoms, normalisation and providing problem-focus coping strategies and relaxation techniques.

According to Redding et al.(2008), an effective guide should be based on psychological theory and research and provides self-help techniques, self-diagnosis, measures of progress, and resources for professional help and further information. In other words, the guide should be included clear instructions and guidelines about how to use the guide, accurate and empirically supported information about traumatic events, the provision of real stories, coping skills, self-diagnosis, homework tasks, and information about further help and professional therapy.

5.6.1 Contents of the self-help guide

The suggested contents of the guide were based on i) the literature of the relationships between PTSD and coping strategies, posttraumatic cognitions, and social support, ii) the results of the current study regarding the predictor

variables of PTSD, iii) the previous self-help books, iv) the suggestions of a group of Iraqi psychiatrists and psychologists, and v) an internet-based open-end questionnaire to collect real traumatic stories of Iraqi participants. Consequently, the following sections were included:

- Introduction: traumatic events (TE) in Iraq, concept of self-help, aims of this guide.
- Concept of TE against life events; examples of TE in Iraq
- Reactions after traumatic events; post traumatic symptoms.
- Effects of PTSD on the different aspects of personality and everyday life in terms of work, study, and social life.
- The factors related to the effects of TE such as social support and coping.
- How to overcome the trauma by themselves; 1] overcoming tension, irritability, and anger, 2] coping with flashbacks 3] making sense of the trauma, 4] overcoming avoidance, and 5] overcoming low mood.
- Contact details for more help.
- Further information and resources.
- Self-diagnosis of traumatic events, traumatic stress symptoms, and coping strategies.

In addition, to help people to be involved with the guide and analyse their experiences, a number of tasks were included. For example, tasks about the concept of traumatic stress, reporting their own traumatic experiences, posttraumatic reactions, reporting their symptoms, effects of PTSD on various

aspects of life, reporting their own experienced effects, and factors related to traumatic stress, such as social support and coping. Some tasks were to draw a plan to deal with symptoms they already have.

The SHG also included some real stories of Iraqi people, their traumatic experiences and how they dealt with their suffering. A summary of the guide is in Appendix 8.

5.6.2 Suggestions of Iraqi psychiatrists and psychologists

A group of Iraqi psychiatrists were asked to assess the extent to which the suggested contents were relevant to developing real knowledge about traumatic events and their aftermaths and effective coping skills. The psychiatrists were contacted via the mail group of the Iraqi Mental Health Forum in the UK (IMNH-UK) to participate in this study. IMNH-UK was established by Iraqi psychiatrists who work in the UK. This forum has links with the psychiatrists and psychologists who work in Iraq. In addition, psychologists who work in the University of Baghdad/ Educational Studies and Psychological Research Centre were contacted via email. Four Iraqi psychiatrists in the UK and three psychiatrists and seven psychologists in Iraq agreed to participate. The list of contents was sent by an email to them. They were asked to evaluate the suggested components and suggest any elements to be added or removed to meet the traumatised people's needs. They agreed that the list was comprehensive. In addition, they emphasised that the guide has to clearly distinguish between life events and traumatic events, highlights trauma-related symptoms, and uses transparent and clear language.

5.6.3 Collecting traumatic stories

Data about the traumatic experiences of Iraqi university students were collected to include some of them in the guide as examples. An internet-based questionnaire with open questions and an introduction page was designed to obtain this information. The questions asked participants to describe the most stressful events that they had experienced recently or in their past life, their reactions to trauma, impacts of trauma, and coping behaviours.
The introduction page included a brief introduction about the study and a consent form for participation. The questionnaire was published on the web via www.surveymonkey.com and lasted for one month. The link was published on Iraqi university student forums also emailed to a mailing list of Association of Iraqi students in the UK.
Forty eight students agreed to participate, and 37 provided valid responses.

Later, some of which were included in the guide as examples. For example, some stories were selected to be included in the section of traumatic events to show the related emotions. Other stories were added to show symptoms that evoked after traumatic experiences. In addition, some were included to show how traumatised people cope with their traumatic experiences.

5.7 SATISFACTION WITH SHG

To assess the extent to which the participants were satisfied with the guide after using it, a checklist of 26 items was added at the end of the guide. Some of these items were adopted from the self-help reading attitudes survey by Wilson and Cash (2000). Other items were developed to focus on issues related to the current guide. The areas covered by the items

were general reading attitudes (8 items), satisfaction with the guide (3 items), self-control orientation (4 items), readable and understandable (2 items), recommend to others (2 items), provide helpful information and skills (4 items), and an alternative therapy (3 items). The responses were rated on a 5 point Likert-scale ranging from strongly disagree to strongly agree. The participants were asked to answer the checklist after finishing the guide. The checklist is available in appendixes as a part of the guide.

5.8 EVALUATION OF THE SHG

Using subscales suggested by Redding et al. (2008), two groups of Iraqi psychiatrists and psychologists were asked to evaluate the SHG.

5.8.1 Iraqi psychiatrists

Iraqi psychiatrists from Iraq and the UK were asked to participate when they attended a meeting in Royal College of London in February 2010. They were asked to evaluate the SHG and eight of them agreed to review the English version. Fourteen items were adopted from Redding et al.'s (2008) subscales. The experts were asked to rate the 14 items on the 5-point Likert scale. The responses ranged from strongly disagree (1) to strongly agree (5) to discover the extent to which the SHG is consistent with the criteria above. Using one sample t-test, the means were compared against the mean point of scale which was 3. The results are presented in Table 5-2. They show that the experts generally agreed that the SHG is consistent with psychological research and theory, having realistic expectations about benefits, providing a specific and accurate guidance of self-diagnosis and measuring their

progress, and not providing harmful advice. Overall, they agreed that the SHG is helpful, accessible, and therefore, they would recommend it to their clients. A significant agreement was found between the experts' ratings where the intra-class correlation coefficient was .79, $F(7, 91) = 5.58$, $p < .001$.

In addition, the experts provided comments and feedback about certain aspects of the guide. For example, avoiding the use of psychiatric terms as they would be difficult to understand, and adding more stories of traumatised people to achieve the normalisation goal.

Table 5-2: Means and Standard Devaitions of the rates of Psychiatrists.

Items	Mean	SD	t-test
The etiological factors described are consistent with psychological research.	4.13	0.99	3.23**
The etiological factors described are consistent with psychological theory.	4.25	1.17	3.02**
The self-help techniques are consistent with psychological research.	4.63	0.52	8.87***
The guide clearly articulates reasonable expectations about the benefits to expect from self-help therapy.	3.88	1.25	1.99*
The guide advises when the reader may need to seek professional help.	3.75	1.49	1.42
The guide explicitly prepares the reader for the possibility of setbacks and failures.	4.23	0.95	3.66**
The guide provides specific and accurate guidance for the reader to self-diagnose.	4.00	1.31	2.16*
The guide provides specific and accurate guidance for implementing and practicing the self-help techniques.	4.25	0.71	4.98***
The guide provides specific and accurate guidance for readers to measure their progress.	4.15	0.84	3.87**
The guide provides advice that is clearly harmful.	2.00	0.93	-3.04**
You would recommend this guide to your clients.	4.38	0.52	7.51***
Overall, this guide is helpful.	4.25	0.92	3.84**
Overall, this guide is grounded in psychological science.	3.75	1.75	1.21
Overall, this guide is accessible to readers (i.e., easy to understand by a layperson).	4.250	1.04	3.40**

*p<.05; **p<.01; ***p<.001

The table shows that the Iraqi psychiatrists agreed significantly that the SHG's contents are consistent with psychological research and theory. For example, the definition of traumatic events and PTSD were described according to DSM-IV. In addition, they agreed that the guide provides an accurate self-diagnosis, as this diagnosis was based on PTSD criteria in DSM-IV. They agreed that the guide prepares the reader for the possibility of failures; the guide provides information of where the reader can gain help in case he/she feels upset as a result of using the guide. They did not agree that the guide provides advice that is clearly harmful. Consequently, they agreed to recommend it to their clients as it is overall helpful and accessible.

Although the experts agreed significantly on all items, two items had neutral rates. The first was whether the guide provided advices for seeking professional help. This may due to that there are no enough professional help resources available for traumatised people. Hence, the suggested number of resources was very limited. The second item was whether the guide in overall was grounded in psychological science. It seems that some of experts, especially those who are working in Iraq, were not familiar with self-help materials. In addition, it might be due to the various theoretical orientations of the experts. These theoretical orientations could be dynamic/analytic, behavioural, cognitive, behavioural cognitive, or eclectic. They might affect the attitudes towards the effectiveness of self-help books. Starker (1988) found that dynamic/analytic psychologists prescribe less self-help books for their patients than the eclectic group. Moreover, cognitive-behavioural therapists find self-help books to be compatible with professional treatment (Campbell & Smith, 2003).

5.8.2 Iraqi psychologists

After consideration of the psychiatrists' comments, the guide was rewritten into the Arabic language. A focus group was conducted to assess the strengths and weaknesses of the Arabic version. A group of psychologists from the University of Baghdad agreed to participate in this focus group, and they reviewed the guide over a period of two weeks. Later, a meeting was held at the University of Baghdad. The meeting lasted for two and a half hours and was filmed. Later, the discussions were transcribed and the data were analysed according to the following steps:

1- Data were reviewed to identify aspects of the strengths and weakness in each category: the extent to which the guide's content is grounded in psychological theory and research, the usefulness of information and skills, provides self-diagnosis, and is readable and understandable. The identification process based on whether sentences, phrases, or words reflect the aspects of discussion. It was considered that these sentences, phrases, or words were exactly or similarly repeated by most participants, or several participants supported a statement presented by a participant. Later, a list of themes was made.

2- A coding guide was created. It had two levels. The first level was to code the categories: grounding in psychological theory and research (GPTR), the usefulness of information and skills (UIS), providing self-diagnosis (SD), and understandable and readable (UR). The second level was code the discussions about the first two categories into strengths (ST) and weakness (WK).

3- The list of themes was firstly categorised according to the first level. Later, the themes of GPTR, UIS, SD, and UR were categorised according to the second level into ST and WK.

The analysis showed that they agreed that the guide was grounded by psychological research, for example, trauma definition and its aftermath were based on PTSD criteria in DSM-IV. Moreover, they agreed that the guide has a self-diagnosis that based on PTSD. In addition, they agreed that the guide was understandable and readable.

Nevertheless, they highlighted some points that have to be considered to make the guide more accessible. Below is a list of suggested changes:

Suggestions for Changes that were made:

- Use accessible language expressions. Some of them suggested the clarification of an expression, for example, “trauma”. They stated that in Arabic the expression of “trauma” could refer to other meanings not only traumatic experiences according to DSM-IV, for example, it could refer to the loss of a job or a failure of study.
- Add more information to clarify the way in which to complete tasks. Some of the psychologists mentioned that it is necessary to add more instructions to clarify how to respond to the tasks provided in the guide.
- Add more stories of traumatic experiences. One psychologist suggested adding a story of an individual describing what he/she did to overcome PTSD. A story of recovery from avoidance symptoms was added.

Suggestions for Changes that were not made:

- Remove introduction about traumatic events and include only coping skills. This was not changed because, first, the introduction was important to identify these events and related symptoms, and most of previous self-help books have such section. Second, there was no agreement between them to remove the introduction. Especially, when it was explained for them that some studies that conducted in Iraq showed that people consider mental health disorders are signs of a personal weakness (e.g. Alhasnawi, et al., 2009; Sadik, et al., 2010). Therefore, it was essential to keep the introduction to facilitate the normality of symptoms after traumatic experiences and that may reflect in reducing the negative cognitions about self.

- Remove the post self-diagnosis section. The reason this was not changed was that this section was necessary to assess the reader's progress following the use of the guide. In addition, most of the discussions approved the importance of this section.

Furthermore, they highlighted that this version of guide could be suitable for well educated people. They suggested producing a new version of the guide for less educated people. Moreover, they stated that this version should be shorter and use more simple language. It was explained for them that the aim of the current study was to develop the guide for university students. Therefore, it was agreed that the new version may be suggested as a future work. In addition, some of them mentioned the possibility of dividing the guide into several small booklets. Each one focuses on one section, for example, overcoming the avoidance symptoms, relaxation techniques etc.

To ensure that the language of the guide is understandable and readable, a specialist in Arabic Language was asked to review it; and the SHG was modified according to that.

5.9 THE EVALUATION STUDY

5.9.1 Method

The main aim of this study was to develop a self-help guide for traumatised people in Iraq. An experiment was conducted to examine the effectiveness of the SHG. The design, participants, measurements, and procedures are described in the next sections.

5.9.1.1Design

The design in this study was use two groups; one experimental and one control. The suggested procedure comprised the following steps:

1. Conduct baseline tests for all participants with full self-reported PTSD.
2. Divide the participants randomly into two groups; treatment and control.
3. Use the guide for at least six weeks.
4. Conduct post tests for both groups.

The originally planned design was included another phase, but this phase was excluded due to practical reasons that mentioned in page 84.

To overcome selection bias and have two groups as similar as possible, two procedures, matching and randomisation were used. Firstly, the

participants were divided into gender groups, and then subgroups were created. For example, participants with similar trauma history, social support, or level of PTSD prior to the experiment were allocated into each gender group. Two groups were created and labelled A and B. Later, using a simple random method, the participant numbers were selected from a bag to divide each subgroup into two halves; then each half was allocated to a group. As a result, 67 participants (16 males and 51 females) were assigned to group A, and 66 participants (15 males and 51 females) were assigned to group B. Group B and group A were randomly assigned to the experimental and control conditions respectively.

The independent variable had two levels; using and not-using the guide. The duration of use was six weeks. It was an appropriate period for the above practical reasons and also a review study found an acceptable effect size in the studies where duration treatment was between one week and eight weeks (Gould & Clum, 1993). Dependent variables were PTSD, coping strategies, and posttraumatic cognitions. PTSD was measured by the severity of reported symptoms that met PTSD criteria in DSM-IV. Coping strategies were measured by the scores on the Brief Cope scale and posttraumatic cognitions by the scores on the PTCI.

Some of the threats of the internal validity of the experiment were considered; of these:

History: traumatic events during the time of the experiment and the media and news are an example of this threat.

Testing: may emerge from use same measurement instruments for the pre and post tests.

Statistical regression: for example, the high levels of PTSD, depression, and anxiety symptoms may tend to go closer to the average even without any intervention.

Subject mortality: refers to the drop out of participants of one group more than another. This drop out may be due to lack of patience and motivation, and these variables may interfere with the causal relationship that is under study. In this study, some participants did not complete all the study's steps.

Other variables were considered as having potential effects on the dependent variables, such as sex, age, social support, number and type of experienced incidents, the level of PTSD prior to the experiment, and asking a professional help.

A between-subjects design could minimise the effects of history, testing, and statistical regression as long as the participants in both groups may be affected by these variables. For other variables, sex; males and females were equally divided into the two groups. For age variable, it was not expected that age could affect the results as the majority of participants in same age group, and also, the results of the current study did not show differences in PTSD according to the age groups. For variables, baseline tests were conducted and showed no significant differences.

5.9.1.2Participants

As presented in Chapter 4, there were 147 participants from four universities who fully met the PTSD criteria of DSM-IV according to their self reports. Of these, 133 participants (31 males and 102 females) were available and agreed to continue in the study. The age ranged between 18 and 35 with a mean age of

22.85 years. This number of participants is considered to be enough to detect an effect of the independent variable even if the effect is small (Myers & Hansen, 2006). See Figure 5-1 for the recruitment of participants.

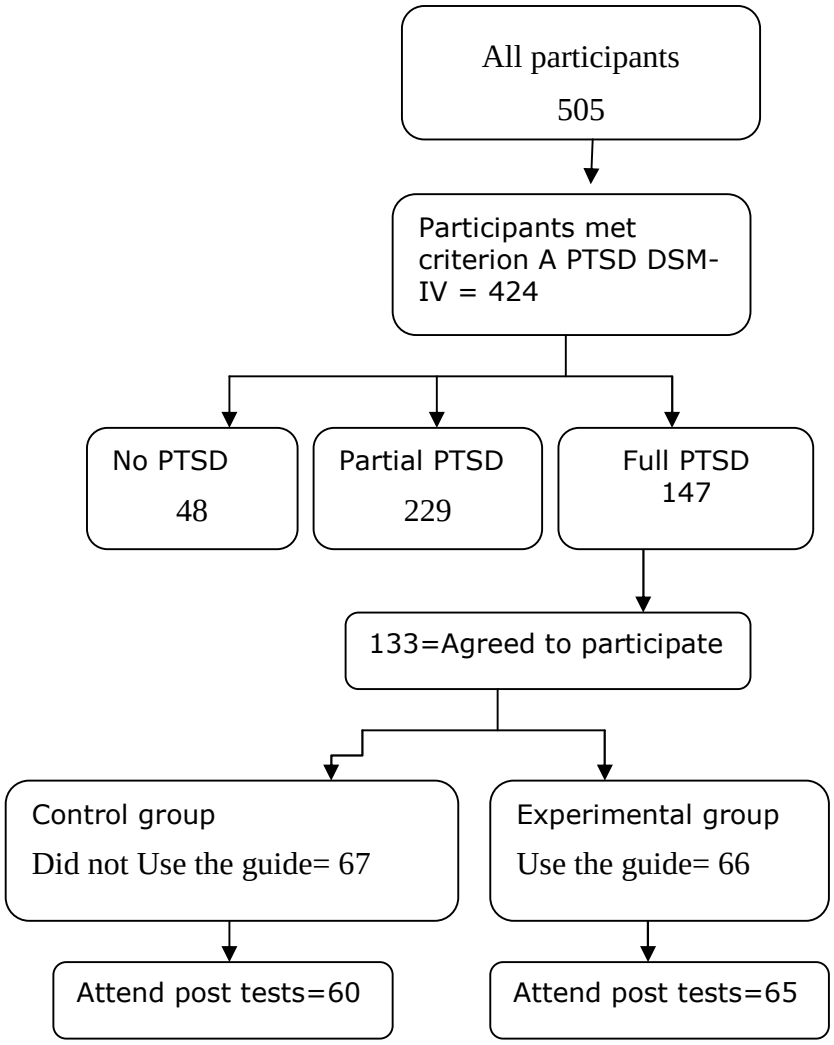

Figure 5-1: The recruitment of Participants

5.9.1.3 Measurements

Six self-report scales were used to assess the variables of study, including trauma history, PTSD, depression and anxiety, coping strategies, posttraumatic cognitions, and social support. The development and validation

procedures and psychometric properties of these scales are described in Chapter three. The scales are listed below:

1. Baghdad Trauma History Screen (BTHS) (see page 93)

1. Screen for Posttraumatic Stress Symptoms (SPTSS) (See page 120)

2. Posttraumatic Cognition Inventory (PTCI) (Foa, et al., 1999) (see page 129)

3. Brief Cope (C. Carver, 1997) (see page 96)

4. Social support (see page 109)

5. The Hospital Anxiety and Depression Scale (O. E. el-Rufaie & Absood, 1987) (see page 142)

5.9.1.4Procedure

A between-subjects design is useful to overcome the threats of history, testing, and statistical regression. For boredom and fatigue,
the guide included instructions to the participants to read and use
over small time intervals and stop reading when they experience these kinds of feelings. To minimise the dropout rate, the participants were contacted weekly in person or by email to encourage them to continue and answer any questions that they might have. Regarding seeking professional help, a question was added at the end of the guide to find those who were seeking for help during the experiment.

Four lecturers in the four universities were asked to participate in the administration process of the SHG, and their tasks were to follow-up the

participants on a weekly basis to ensure that they were using the guide and whether they had any inquiries.

Baseline tests were conducted for both groups. The participants in the control group were told that another test would be done after six weeks. The participants in the experimental group were instructed about how to use the guide and how they could contact the researcher. Afterwards, they were given hard copies of the SHG and told that they would be regularly contacted every week either in person or by email.

Six weeks later, post tests were administered for both groups. Eight participants (2 males and 6 females) did not attend the post test sessions; one from the experimental group and seven from the control group. Therefore, 125 participants (65 experimental group and 60 control group) completed all the study stages and had valid responses for analysis.

Later, the data were analysed to assess any significant differences in PTSD, coping strategies and posttraumatic cognitions between both groups.

5.9.1.5Focus group

Two focus groups were conducted to examine the strengths and weaknesses of SHG from the viewpoint of the participants after finishing the use of the guide. Two of the four universities were selected to hold the focus groups; the University of Baghdad and Al-Mustansiryha University. These two universities were selected because the lecturers, who cooperated to conduct the first stages of study, in other university were no longer able to continue. The first focus group was with 6 female students, their age ranged from 20 to 25 years with a mean of 22 years and conducted in University of Baghdad; the other one was

with seven males and their age ranged from 19 to 26 years with a mean of 23.5 years, and conducted in Al-Mustansiryha University. Their comments were immediately transcribed as they did not agree to the meetings being recorded.

5.9.1.6Follow up focus groups

After ten months, follow up focus groups were conducted. The participants in the experimental group were contacted. Nine participants from the University of Baghdad were available at the time and agreed to participate, but only seven of them attended; all of them females. A second focus group was held in Al-Mustansiryha University and eight participants attended the meeting; all of them males. The discussions were immediately transcribed and then analysed.

6 Chapter 6: the effectiveness of SHG

A series of paired t-tests and mixed within-between groups repeated measures ANOVA were used to examine the significance of differences between the experimental and control groups. This was done across pre and post tests. Focus groups also were conducted to examine the strengths and weaknesses of the guide.

6.1 BASELINE TESTS

Baseline tests were conducted before using the guide to ensure that the participants in both groups had no significant differences. Table 6-1 shows that there were no significant differences between the experimental group and control group in all variables, apart from participants in the control group who reported more social support received from family than those in the experimental group. Thus, the participants in both groups had a similar level of PTSD and related variables before intervention was given.

Table 6-1: Means, Standard Deviations, and t Values of the Experimental and Control Groups at the Baseline Tests.

	Control M (SD)	Experimental M (SD)	T
PTSD			
Overall PTSD	9.18 (2.17)	9.86 (2.16)	1.75
Avoidance	3.98 (1.17)	4.09 (1.07)	0.54
Re-experience	2.48 (1.26)	2.80 (1.19)	1.45
Hyper-arousal	2.72 (0.76)	2.68 (0.92)	-0.26
Coping strategies			
Seeking support	18.35 (4.23)	18.04 (4.77)	-0.39
Active coping	15.85 (3.39)	15.78 (3.49)	-0.27
Non-problem focused coping	15.01 (3.29)	15.20 (2.87)	0.35
Substance use	2.83 (1.44)	3.05 (1.75)	0.74
Posttraumatic Cognitions			
NCS	5.66 (1.81)	5.83 (1.81)	0.52
NCW	5.67 (1.31)	5.74 (1.48)	-0.29
PCT	177.35 (51.64)	178.90 (50.37)	0.18
Social support			
SSFamily	47.22 (13.20)	39.22 (13.44)	-3.35**
SSFriends	34.75 (14.58)	35.12 (13.12)	.15
SSGO-NGO	19.80 (6.77)	21.65 (5.80)	1.64
Anxiety	10.32 (3.18)	10.26 (3.31)	-.10
Depression	9.23 (3.20)	9.08 (3.11)	-.28

Note. Exp= experimental group; Ctrl= control group; NCS= negative cognitions about self, NCW = negative cognitions about the world, PCT = the total of negative cognitions; SSFamily = Support received from family; SSFriends = support received from friends; SSGO-NGO = support received from governmental and nongovernmental organisations.
*P< 0.05; **P<.01; ***P<.001

6.2 PTSD

The results of examining PTSD showed that level of symptoms in the experimental group reduced, while it did not for the control group, (see Table 6-2). In terms of PTSD symptom clusters, significant reductions were found in avoidance and re-experience symptoms but not in hyperarousal symptoms within the experimental group across the test times. In the control group, no significant differences were found in any cluster.

Table 6-2: Comparison of PTSD scores in Experimental Group (n=65) and Control Group (n=60) at Pre and Post Tests.

		Pre Test	Post Test	Within-Groups	Between-Groups
		M (SD)	*M (SD)*	*t*	*F*
PTSD	Ctrl	9.18 (2.17)	8.67 (3.54)	1.06	14.68***
	Exp	9.86 (2.16)	6.65 (3.71)	6.34***	
Avoidance	Ctrl	3.98 (1.17)	3.67 (1.39)	1.51	10.47**
	Exp	4.09 (1.07)	2.82 (1.48)	6.08***	
Re-experience	Ctrl	2.48 (1.26)	2.25 (1.37)	1.43	23.26***
	Exp	2.80 (1.19)	1.34 (1.29)	7.59***	
Hyper-arousal	Ctrl	2.72 (0.76)	2.82 (1.36)	-0.55	1.63
	Exp	2.68 (0.92)	2.42 (1.53)	1.22	

*P< 0.05; **P<.01; ***P<.001

To examine the clinical significance of the reductions in PTSD, numbers of participants who either fully or partially met PTSD criteria in both groups in the pre and post test were compared. The results are presented in Table 6-3.

Table 6-3: Number of Participants Who Met PTSD Criteria in Pre and Post Tests.

Group	Pre Test			χ^2
	Meeting PTSD criteria			
	One cluster N (%)	Two clusters N (%)	Fully N (%)	
Experimental	1 (1.5)	1 (1.5)	63 (97)	0.43
Control	2 (3.3)	1 (1.7)	57 (95)	
		Post Test		
Experimental	17 (26)	9 (14)	39 (60)	16.99***
Control	4 (6.7)	1 (1.7)	55 (91.6)	

***p<.001

The above table shows that more than 95% of the participants in both groups fully met PTSD criteria. It is important to mention that the selection of participants to participate in the experiment based on their fully meeting to PTSD criteria in January 2010. The experiment was conducted around three months later. Reported PTSD symptoms reduced on their own in some of participants (2 in experimental group and 3 in the control group). This may reflect a natural recovery process. After using the SHG, there was a significant

reduction in PTSD in the experimental group. Forty percent of those who used the guide reported fewer symptoms; therefore, they were no longer fully met PTSD criteria. Moreover, 26% of them met the criteria for only one cluster of PTSD and 14% for two clusters. This shows that the SHG can help traumatised people to overcome their suffering of PTSD. However, this recovery was not complete; either because the guide did not have significant on hyperarousal cluster or because the participants may need a long period to use the guide

Figure 6-1 shows that overall PTSD and avoidance and re-experience symptoms reported fewer across the pre and post tests in the experimental and control groups.

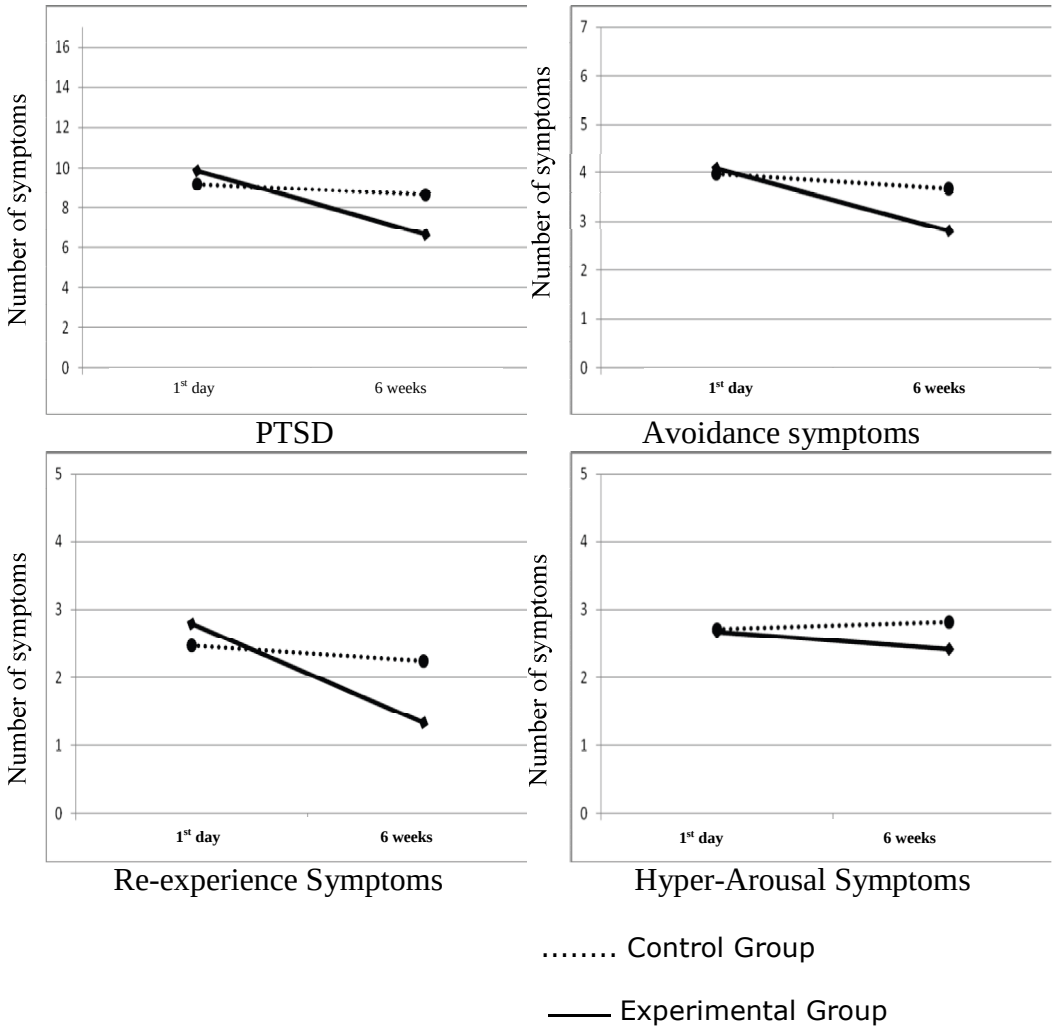

Figure 6-1: Changes in PTSD Across Test Times for The Experimental and Control Group.

The above figure demonstrates that the reports of PTSD generally declined in the post tests in both groups. Nevertheless, these reports dropped significantly in the experimental group but not in the control group. Moreover, there was a considerable slump in re-experience symptoms from the pretest to the post test. One exception was that hyperarousal symptoms maintained the same level of severity across the pre and post tests in both groups.

6.3 COPING STRATEGIES

The means, standard deviations, and t test values of the experimental and control groups in the pre and post test are presented in Table 6-4.

Table 6-4: Comparison of Coping Strategies scores in Experimental Group (n=65) and Control Group (n=60) at Pre and Post Tests.

Variables	group	Pre	Post	Within-groups	Between-groups
		M (SD)	M (SD)	t	F
Seeking support	Ctrl	18.35 (4.23)	17.24 (3.86)	1.86	16.11***
	Exp	18.04 (4.77)	20.23 (4.72)	-3.86***	
Active coping	Ctrl	15.85 (3.39)	16.13 (2.50)	-0.68	43.30***
	Exp	15.78 (3.49)	20.46 (3.60)	-8.95***	
Non-problem focused coping	Ctrl	15.01 (3.29)	16.34 (2.90)	-3.25**	21.91***
	Exp	15.20 (2.87)	13.40 (3.01)	3.46**	
Substance use	Ctrl	2.83 (1.44)	2.97 (1.72)	-0.58	0.20
	Exp	3.05 (1.75)	3.02 (1.46)	0.11	

*P< .05; **P< .01; ***P< .001

The findings show that the participants in the experimental groups reported significantly more use of seeking support and active coping, and less use of non problem focused coping across the test times. The participants in the control group reported significantly more non problem focused coping in the post tests than the pre tests. Changes in coping strategies are presented in Figure 6-2.

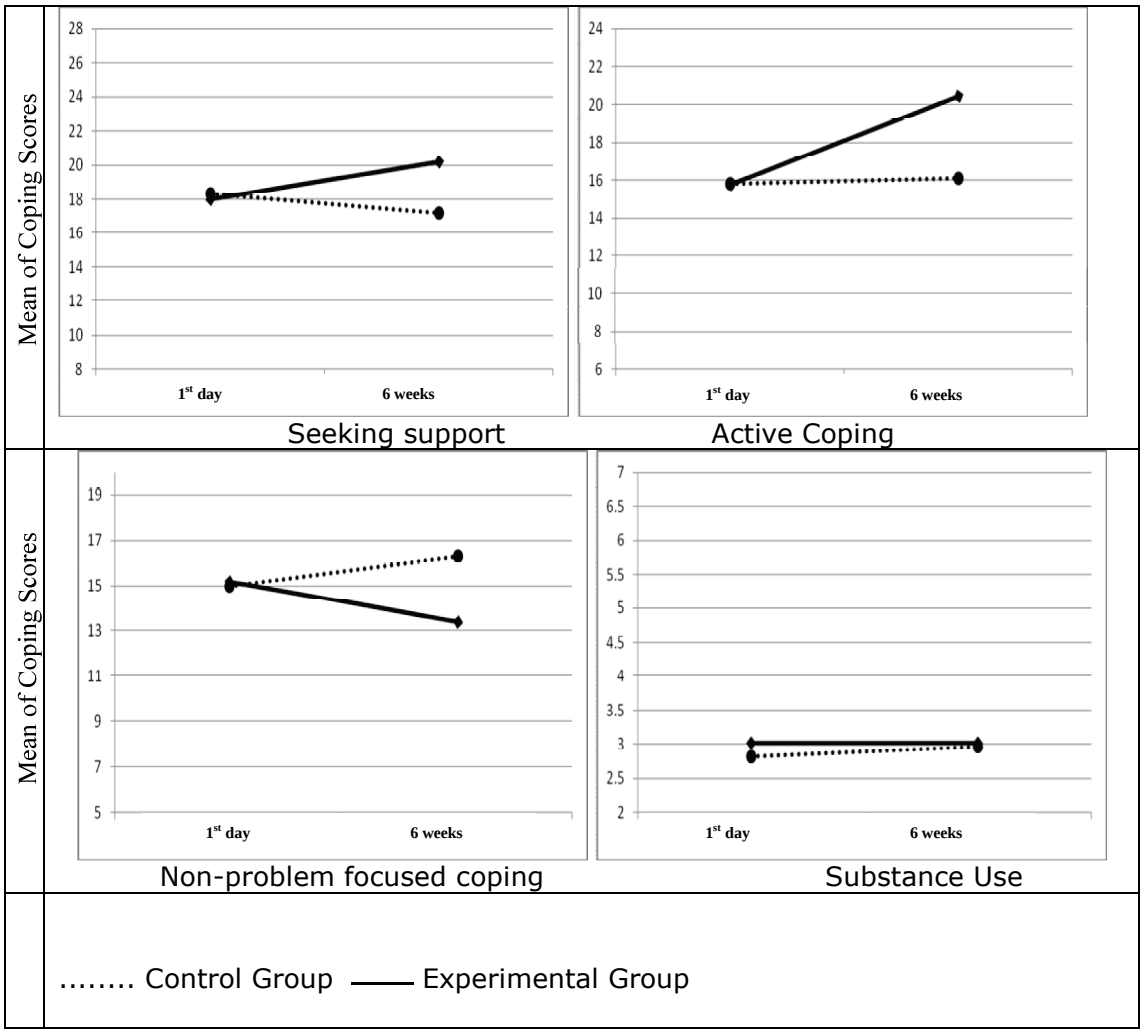

Figure 6-2: Changes in Coping Strategies Across Test Times for The Experimental and Control Group.

As it can be seen from the figure, the positive coping strategies increased significantly after the use of the guide. The tendency to use the seeking support strategies went up markedly. Furthermore, there was a sharp rise to use active coping. In contrast, there was a significant decrease in the tendency to use non problem focused strategies in the experimental group, while there was a marked rise to use these strategies in the control group. The substance use remained stable in both groups across the test times.

6.4 POSTTRAUMATIC COGNITIONS

Posttraumatic negative cognitions about self (NCS), world (NCW), and in total (PCT) were assessed using the PCTI. The results are presented in Table 6-5.

Table 6-5: Comparison of Posttraumatic Cognitions scores in Experimental Group (n=65) and Control Group (n=60) at Pre and Post Tests.

Variables	group	Pre	Post	Within-groups	Between-groups
		M (SD)	*M (SD)*	*t*	*F*
NCS	Ctrl	5.66 (1.81)	5.92 (2.13)	-0.87	11.74**
	Exp	5.83 (1.81)	4.70 (1.97)	4.12***	
NCW	Ctrl	5.67 (1.31)	5.78 (1.48)	0.64	0.94
	Exp	5.74 (1.48)	5.63 (1.84)	1.63	
PCT	Ctrl	177.35 (55.64)	182.75 (60.44)	-0.64	4.27*
	Exp	178.90 (50.37)	156.70 (55.92)	2.75*	

Note. Exp= experimental group; Ctrl= control group; NCS= negative cognitions about self, NCW = negative cognitions about the world, PCT = overall of negative cognitions.
*P< .05; **P< .01; ***P< .001

The participants in the experimental group in the post test compared with the pretest reported significantly less NCS and PCT. The levels of NCS and PCT also decreased significantly, unlike these reported by the participants in the control group in the posts tests; NCS and PCT. These changed also displayed in Figure 6-3.

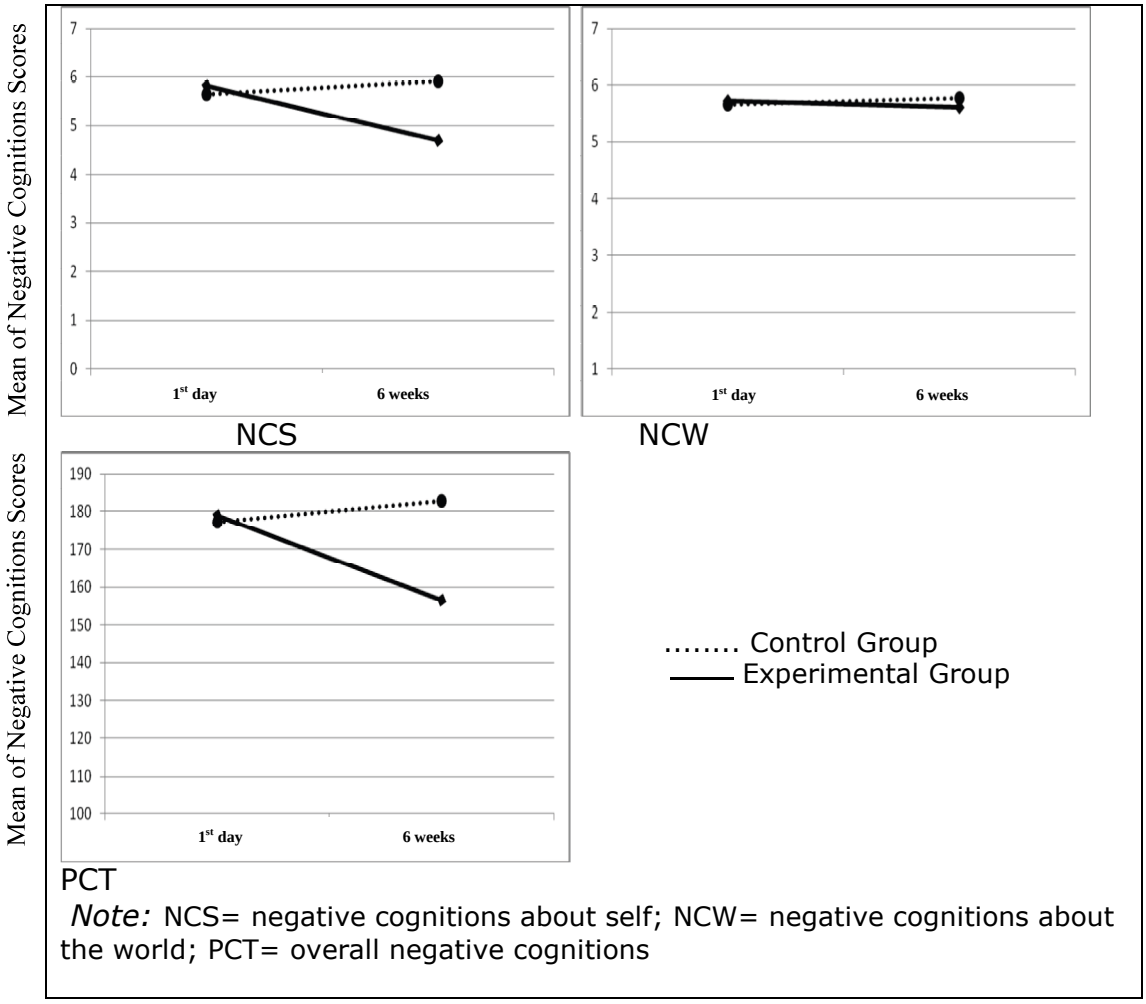

Figure 6-3: Changes in Posttraumatic Cognitions Across Test Times for The Experimental and Control Group.

The above figure highlights that the NCS and PCT fell substantially after using the SHG. In addition, there was a slight growth in the NCS and PCT in the control group. The NCW were not declined in both groups over the test times.

6.5 SOCIAL SUPPORT

The perceived social support from family, friends, and GO-NGO was assessed in the two groups before and after using SHG by the experimental group. Table

6-6 shows the means, standard deviations, and t values of both groups in the pre and post tests.

Table 6-6: Comparison of Social Support scores in Experimental Group (n=65) and Control Group (n=60) at Pre and Post Tests.

Support Resources	Groups	Pre Test *M (SD)*	Post Test *M (SD)*	Within-groups *t*	Between-groups *F*
SSFamily	Ctrl	47.22 (13.20)	44.77 (14.34)	1.34	2.09
	Exp	39.22 (13.44)	40.46 (14.75)	-0.70	
SSFriends	Ctrl	34.75 (14.58)	35.57 (14.85)	-0.52	1.08
	Exp	35.12 (13.12)	33.34 (12.47)	0.93	
SSGO-NGO	Ctrl	19.80 (6.77)	20.37 (7.61)	-0.51	0.13
	Exp	21.65 (5.80)	21.72 (5.99)	-0.10	

Note: SSFamily = Support received from family; SSFriends = support received from friends; SSGO-NGO = support receieved from governmental and nongovernmental organisations.

Neither groups showed significant differences in perceived support from all resources across the two tests. This shows that the participants in both groups perceived a similar level of social support during the experiment. This highlights that the reported changes in the severity of PTSD and other variables were more likely due to using the guide rather than social support.

6.6 DEPRESSION AND ANXIETY

Depression and anxiety symptoms were assessed using the HADS before and after the experimental group used the SHG; see Table 6-7.

Table 6-7: Comparison of Depression and Anxiety scores in Experimental Group (n=65) and Control Group (n=60) at Pre and Post Tests.

		Pre Test	Post Test	Within-groups	Between-groups
	Group	*M (SD)*	*M (SD)*	*T*	*p*
Anxiety	Ctrl	10.32 (3.18)	8.53 (2.83)	-0.67	2.15
	Exp	10.26 (3.31)	7.77 (3.26)	1.39	
Depression	Ctrl	9.23 (3.20)	8.03 (3.42)	1.78	9.97**
	Exp	9.08 (3.11)	6.18 (3.11)	5.17***	
*P< .05; **P< .01; ***P< .001					

The table shows that no significant differences in depression and anxiety symptoms were found between the experimental and control groups in the pretests. In the post test, fewer depression symptoms were reported by the experimental group than the control group. The anxiety symptoms in the experimental group compared with the control group were not significantly changed at the post test. The changes of symptoms are displayed in Figure 6-4

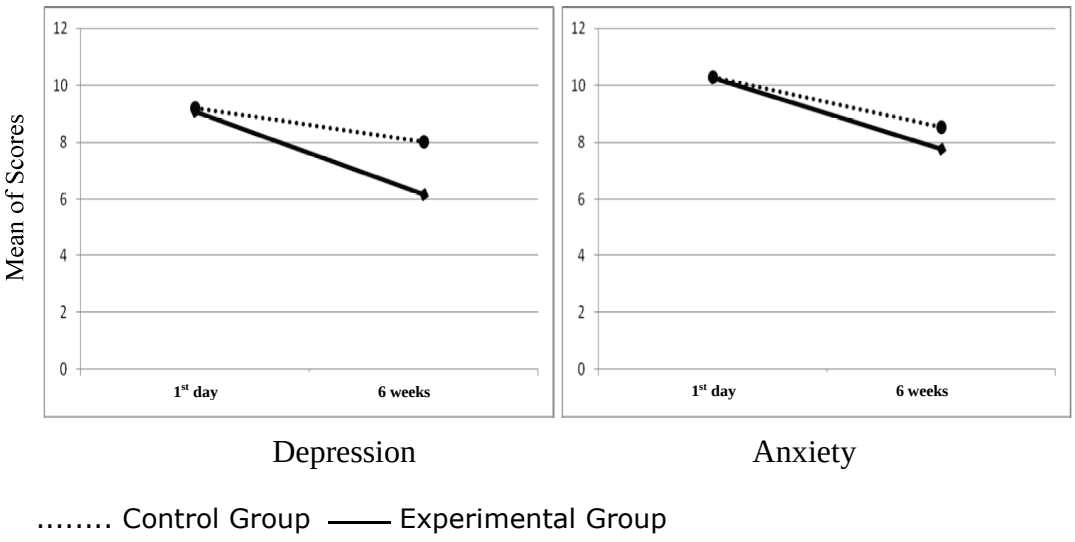

Figure 6-4: Changes in Anxiety and Depression Symptoms Across Test Times for The Experimental and Control Group.

The figure demonstrates that the symptoms of depression were dropped dramatically in the experimental group, while they were increased slightly in

the control group. For the anxiety symptoms, there was a slight reduction in both groups.

6.7 VARIABLES PREDICTING PTSD AFTER USING SHG

To find predictor variables of PTSD in the experimental group after using SHG, the data for coping strategies, posttraumatic cognitions, and social support were entered in multiple regression analysis using the stepwise method. A model of four significant variables was produced including coping strategies, such as seeking support, active coping, and non problem focused coping along with the total negative cognitions. The means, standard deviations, and inter-correlations are displayed in Table 6-8.

Table 6-8: Means, Standard Deviations, and Intercorrelations for PTSD and Predictor Variables.

Dependent Variable	M	SD	1	2	3	4
PTSD	6.65	3.71	.57**	-.52**	-.47**	.38**
Predictor variables						
1-PCT	156.70	55.92		-.29*	-.24	.25*
2-Active Coping	20.46	3.60			-.02	-.15
3-Seeking Support	20.23	4.72				-.10
4-Non-problem focused coping	13.40	3.01				

Note. PCT = the total negative cognitions
*$p<.05$; **$p<.01$; ***$p<.001$

This group of variables significantly predicted PTSD, F (5, 59) = 27.22, $p <$ .001. Table 6-9 shows the beta weights that suggest that the most common predictors of PTSD were coping strategies; active coping, seeking support, and emotional support. They contributed -.41, -.39, .20 respectively. In addition, the total negative cognitions contributed .31. The adjusted R^2 value was .62 which means that these variables can explain 62% of the variance in PTSD.

Table 6-9: Multiple Regression Analysis Summaries of Variables Predicting PTSD.

Variables	B	Std. Error	B	t
1-PCT	.02	.01	.31	3.60**
2-Active Coping	-.42	.08	-.41	-5.06***
3-Seeking Support	-.30	.06	-.39	-4.88***
4-Non-problem focused coping	.25	.10	.20	2.54*
(Constant)	14.93	2.99		

Note. *Note*. PCT = the total negative cognitions
*$p<.05$; **$p<.01$; ***$p<.001$

These results show that the coping strategies and posttraumatic cognitions that were changed following the use of SHG could significantly predict PTSD. The use of coping strategies, such as active coping and seeking support could reduce the severity of PTSD. In contrast, non problem focused coping and posttraumatic cognitions associated with increasing the severity level of PTSD.

6.8 SATISFACTION WITH SHG

Satisfaction with the guide was evaluated by the checklist attached to it. The checklist comprised of 26 items with seven subscales and was rated by a 5 point Likert-scale ranging from strongly disagree (1) to strongly agree (5). As areas of the checklist had a different number of items, the weighted means* of each area were computed. In addition, using one sample t-test, the weighted means were compared against the mean point of scale which was 3. The results are presented in Table 6-10. The participants who used the guide expressed more satisfaction with its role in self-control orientation, providing helpful information and skills, and therefore they reported will recommend it to others. In contrast, the participants were less satisfied with the guide in terms of how

* - The weighted means were calculated through 3 steps. First, multiply each rating scale of 5 Likert-scale by its frequency (number respondents picked that answer choice). Second, sum the totals. Third, divide the weighted value calculation by the sum of respondents.

readable and understandable it was. In addition, higher satisfaction was significantly correlated with low PTSD scores, r (65) = -.44, p< .001.

Table 6-10: Means and Standard Deviations of Satisfaction Areas.

Satisfaction areas	Items	M	SD	t-test
General reading attitudes	8	3.05	0.73	0.55
Satisfaction with the guide	3	3.86	0.74	9.37***
Self-control orientation	4	4.31	0.77	13.72***
Readable and understandable	2	2.43	0.78	-5.89***
Recommend to others	2	4.17	0.80	11.79***
Provide helpful information and skills	4	3.52	0.83	5.05***
An alternative therapy	3	1.96	0.62	-13.52***

The results in the above table show that three of satisfaction areas had scores clearly higher than 3. These areas were satisfaction with the guide, self control, providing helpful information and skills, and recommend to others. One area was neutral; the role of guide in creating general reading attitudes. In contrast, the participants did not agree that the guide was readable and understandable, and they also did not consider it as an alternative therapy.

In other words, the participants who used the guide reported high satisfaction with its role in encouraging the self-control orientation as it provide them with helpful skills to deal traumatic stress and helped them to understand traumas and their aftermath. Therefore, they agree to recommend it to others. In contrast, it seems that the guide contained some terms and expressions that were difficult to be understood. Interestingly, they expressed that they did not consider the guide as an alternative therapy; this was also clearly stated in the guide. This is an important indication that the guide was able to deliver its message. The message is that the guide provides psychoeducation information about traumatic events and skills to deal with them. It could be serving as an

adjunct tool in conjunction with a professional therapy but not as an alternative therapy.

It is worth stating that there some factors could lead the participants to report neutral or low satisfaction with the guide. Of these, the widespread nature of traumatic events in Iraq, according to the current study 424 (84%) reported at least experience one traumatic event. Consequently, the vast majority of them reported symptoms that met PTSD criteria fully and partially respectively, and only 11% did report any symptoms. Hence, it is expected that those people had high levels of needs of mental health care. Nevertheless, as stated in the literature review, for several reasons, only few of those who need mental health treatments could access these treatments. Therefore, it was not expected that the guide fulfils all their needs, and also the guide did not claim that, thereby further help resources were provided at the end of it. Another important issue should be addressed that the participants generally reported that the guide information were approximately completely new for them. Therefore, they may did not have enough knowledge to assess whether these skills were helpful or not, especially the effects of these skills may take a longer time to appear. With regards to the difficult language expressions, they were considered in the final Arabic version (more details in Implications section of Chapter 7).

6.9 FOCUS GROUP

Two focus groups were aimed at examining the usefulness of information and skills, the guide's readability, and suggestions to improve it to find the strengths and weaknesses aspects of SHG from the viewpoint of the

participants after they used the guide. The discussions were transcribed immediately when the focus groups were taking place. The data were analysed according to the following steps:

1- Data were reviewed to identify aspects of the strengths and weakness in each category: the usefulness of information and skills, the guide's readability, and suggestions to improve it. The identification process based on whether sentences, phrases, or words reflect were reflected the aspects of discussion. It was considered that these sentences, phrases, or words were exactly or similarly repeated by most participants in one group or both, or several participants supported a statement presented by a participant. Later, a list of themes was made.

2- A coding guide was created. It had two levels. The first level was to code the categories: the usefulness of information and skills (UIS), the guide's readability (GR), and the improving suggestions (IS). The second level was code the discussions about the first two categories into strengths (ST) and weakness (WK).

3- The list of themes was firstly categorised according to the first level. Later, the themes of UIS and GR were categorised according to the second level into ST and WK.

The participants reported that the information which provided in the guide was mostly completely new for them. Some of them mentioned that they read the guide twice. Others reported that they read it once. They stated that the guide was helpful because it provided them with information that would help them to understand their feelings after the trauma. This information helped them realise

that it is normal for them to have such feelings and that it is not a sign of a defect in their personality. They mentioned that the guide had different sections to deal with different trauma-related symptoms. Therefore, they said that it was possible for them to focus on a section that deals with specific symptoms or feelings they had. They reported that they feel more control as now they have a resource to learn new coping skills. In addition, they appreciated that the guide provided them with contact information for further help. A student, female, 21 years, said

> *"I had no idea about why I remember the people who were killed near Al-Mustansiryha University by a car bomb when I go through the street where the explosion occurred. I used to think that I'm going to be crazy. Now I am more aware that this was a traumatic event and it was normal to have such these feelings and they can be recovered".*

Another student, male, 23 years, said *"I was trying to find an explanation of why I smelled burnt bodies when my friends were talking about our mates who were killed in the explosion. I found good answers in the guide for questions that I had".*

Another student, female, 23 years, said: *"just now, I know why I scare and try to avoid talking about our neighbour who was kidnapped in front of our eyes".*

Due to their previous thoughts about the nature of their sufferings, they indicated that they previously thought that seeking help was a stigma and so

they ignored their emotional distress. Some of them suggest that the guide should be available to students, and they asked about how to obtain a copy of it when it is ready.

A student, male, 25 years, stated: *"Although I suffered from various feelings like anger, nightmares because we were threaten to leave our home, it was really difficult for me to seek help from a psychiatrist. I was afraid that my friends would consider me as a mad man and someone who has a weak personality. The guide helped me to rethink my feelings and try to make a sense of things that I experienced"*

Another student, 24 years stated*:" I had to leave our city after my brother was killed, the place where I was born, where I had lovely friends. Our neighbours contacted us a lot to return to our house. My parents would like to go back but the problem is with me. Although I think that our city is now safer, I feel nervous and tension when I am near it. After reading the guide, I decided on a plan to overcome the avoidance. This plan has some steps. I have already tried the first step. I asked our friends to meet in the main road near our city. I did that many times, firstly I felt uncomfortable but I feel better and think of doing the next step."*

However, they stated that they did not have enough time to use the guide properly. They also mentioned that the language of guide was to some extent difficult to understand. And some of the terms were complex and need simplified, for example "re-experience".

As another 23 years old female student said: *"The guide had some difficult terms for me. I couldn't understand terms, such as re-experience, flashbacks. I felt bored when I couldn't understand what I read. The guide should be included simple words."*

Accordingly, they thought that the guide would be more helpful if it is used for a longer period of time. They also thought that it would be helpful for them to be assessed by a psychologist during and after the use of the guide and also be able to discuss issues that arise during that time.

6.10 FOLLOW UP FOCUS GROUPS

Two follow up focus groups were conducted ten months later with participants from the experimental group to examine the usefulness of information and skills that the SHG provided them after this a period of time. The discussions were transcribed immediately when the focus groups were taking place. The data were analysed according to similar steps to what is prescribed in the previous section.

The participants stated that information and techniques that they gained from using the guide were useful during the last period. They all agreed that the distressed feelings that they had before they used the guide were reduced.

A 22 years old female student said: *"I think it was a good chance for me to participate in this study. I still try to use the techniques I read in the guide to cope with incidents that I have experienced. When I am exposed to an event and have strange*

feelings, I tried to understand and make a sense of these feelings using the information that I read in the guide".

Another 20 years old male student said: *"Now, I feel free to talk to my friends about the feelings that I have had. I explain for them what these feelings are, why they occur, and how we can deal with them. They showed interest in having a copy of the guide. I suggest that the guide should be available either in a hard copy format or via internet. I think we will get more benefit from it if we have a longer time to use it"*

However, over time and as a result of new traumatic events experienced, some of those feelings came back occasionally. Therefore, the participants mentioned that it would be better for them to have the guide permanently with them to be able to maintain the improvement that they made. They think that they will need to use it regularly.

A 21 years old female student said: *"The SHG was good in terms of information provided, but it was long and it is difficult for me to remember the things that I read in it. I think it was a good source of information and techniques, but its length made it difficult to finish reading it properly. I may suggest that SHG can be divided into a number of sections, so people can read only the section that they need"*.

Another 23 years old male student stated: *"The guide helped me to reduce some distressed feelings. But these feelings have come back again. I'm thinking to look for help from a*

psychiatrist if I can't overcome these feelings. However, the guide showed me that I'm not only one who has such feelings, and it is normal."

Another 21 years old male student said: *"It was difficult for me do the self-assessment. I think this should be done by another person, for example, a psychological counsellor"*

This clearly shows that SHG can encourage people to seek a professional help from psychiatrists as they feel that their feelings after trauma are normal.

6.11 DISCUSSION

In this chapter, the results of examining the effectiveness of SHG were presented. The pretests results showed that there were no significant differences between the participants in the experimental and control groups in across majority of the variables; namely PTSD, coping strategies, posttraumatic cognitions, social support, and depression and anxiety. One exception was that the participants in the control group reported more social support received from family than those in the experimental group.

The participants in the experimental group used SHG for six weeks. They reported less PTSD intensity than those in control group. In terms of PTSD clusters, the participants in the experimental group reported avoidance and re-experience symptoms of lower intensity compared to those in the control group. Interestingly, no significant changes were reported in hyper arousal symptoms compared with re-experiences and avoidance symptoms.

Most coping strategies changed significantly after using the SHG. The participants reported high tendency to use strategies, such as active coping, and seeking support; and low tendency to use non problem focused coping. In a parallel way, they showed a decrease in negative cognitions about self and also in the overall negative cognitions.

The participants reported fewer depression symptoms following the use of the SHG while anxiety symptoms did not change significantly.

In terms of social support, there were no significant differences across test times between the experimental and control group.

The predictor variables of PTSD after the use of the SHG suggest that the reduction in the reported symptoms is associated with the use of the guide. The guide provides information and techniques to help people actively plan and cope with traumatic experiences. Hence, coping skills, such as active coping and seeking support were improved and the use of non problem focused coping was reduced. It seems also that the guide helps people to understand the traumatic events and their aftermath. Consequently negative cognitions about self were changed and the image of self was improved.

As it was stated in the review of literature, coping represents continuously changing efforts to deal with stressful events. These efforts are based on coping resources, including health and energy, positive beliefs, problem-solving skills, social skills, and social support. The results of the current study show that coping strategies, such as seeking support and active coping were improved and non problem focused coping declined following the use of SHG. That means that SHG helps to improve coping resources and then enhances the

coping strategies. In addition, negative cognitions were reduced as a result of i) improved coping strategies that enhance the self-control, ii) gaining accurate knowledge about traumatic events and iii) the normality of feelings following traumatic events. The satisfaction results support this conclusion in cases where the participants reported that the guide significantly helped them to exercise more self-control. When people have some insight into traumatic experiences they face and techniques to deal with them, they behave actively to overcome these distressing experiences. Accordingly, the types of strategies that are used to cope with traumatic stress play an important role in onset and maintenance of PTSD. The guide may help to develop coping strategies that reduce the negative cognitions which could then lead to the reduction of PTSD.

These results shed the light on the significant relationships between PTSD and coping strategies, posttraumatic cognitions, and social support in an Iraqi population. They show that the relationship between experiencing a traumatic event and developing PTSD could be modified. This requires that traumatised people have adequate coping skills or enable them to have such skills. In addition, the results demonstrate that SHG could play an important role in developing such skills, and also, disconfirm the negative posttraumatic cognitions.

7 Chapter 7: General discussion and conclusions

The results of the current study show that a large majority of participants reported experiencing at least one traumatic event. Over a third of those participants reported PTSD that fully meet DSM-IV criteria as well as depression, and anxiety symptoms before using the SHG. The study found a number of variables that can predict PTSD. Variables including active coping, seeking support strategies, and social support perceived from family were associated with the decrease of PTSD. In contrast, non problem focused coping, negative cognitions about self, and the number of experienced traumatic events were associated with the increase of PTSD.

The development of the SHG was mainly based on literature of PTSD, a review of self-help materials for PTSD, information collected from Iraqi psychiatrists and psychologists. The effectiveness of SHG was examined, the results showed that it was an effective tool to help traumatised people in Iraq to effectively deal with their traumatic experiences. Although there were significant reductions in PTSD and depression symptoms as reported by the participants, hyper-arousal symptoms and anxiety were not significantly reduced, perhaps because the participants were still living in a stressful or traumatic environment.

7.1 DISCUSSION OF THE STUDY FINDINGS

The results of each variable of the developed model and their predictor role of PTSD are discussed. The role of the guide in developing coping strategies and positive cognitions about the self and the world and reducing PTSD, are also discussed.

7.1.1 Trauma-related symptoms and PTSD risk factors

The results of this study showed that the majority of participants have experienced at least one traumatic event either personal or their family members or friends. Moreover, most of them have experienced multiple traumas. In terms of PTSD, different levels of symptoms reported by the participants. Only few of the participants reported no symptoms at all. These results are clearly supported by the findings of previous studies that have examined the associations between PTSD and the nature of exposure, a number of traumatic events experienced, and event type (e.g. Jonathan R. T. Davidson, et al., 2004; Follette, et al., 1996; Saari, 2005; Wyshak, 1994). War- and violence-related events make people at a risk of developing PTSD (Pearce, et al., 1985).

Females were more likely to display PTSD than males. This supports similar findings from previous research (e.g. Ronald C. Kessler, et al., 1994; R. C. Kessler, et al., 1995). This suggests that women are more vulnerable to PTSD than men, or that they are more likely to report symptoms. In addition, these

high levels of symptoms may due to the nature of coping strategies that women use to deal with traumatic stress, women use more emotional-focused strategies than problem-focused strategies (Fernando, Cláudia, & Manuel, 2010; Kelly, Tyrka, Price, & Carpenter, 2008).

Ressler et al. (2011) reported another interpretation of the sex differences in PTSD. They found a biological explanation of sex differences, in women with heavy traumatic experiences, there were significant associations between PTSD diagnosis and symptoms and the level of pituitary adenylate cyclise-activating polypeptide (PACAP) in blood. This suggests that the vulnerability of women to PTSD has a physiological base rather than a result of the socialisation process only.

In this research, the overall prevalence rate of reported PTSD that fully meet DSM-IV is 35% which is higher than the prevalence rates in Cambodia (28.4%), Ethiopia (15.8%), and Gaza (17.8%) and about the same in Algeria (37.4) (de Jong, et al., 2001). It is also higher than the lifetime rate in USA (7.8%) and Canada (9.2%) (Naomi Breslau, Kessler, Chilcoat, et al., 1998; R. C. Kessler, et al., 1995). The widespread of PTSD shed the light on the wide range of traumatic events in Iraq.

In terms of coping strategies, four strategies were assessed here. These strategies are not the same as original Brief Cope. The original Brief Cope had 14 subscales and each one measures one coping strategy. Four of them (acceptance, denial, humour, and venting) were excluded due to low Cronbach's alpha scores. As a result of using principal components factor

analysis, the remain 20 subscales were grouped into four strategies which were active coping, seeking support, non problem focused strategies, and substance use (for further discussion see page 253). Unfortunately, there were no normative data available to judge which of these strategies are dominant for the participants of study. Female participants reported a higher rate of using seeking support than males. Males were higher in active coping. No significant differences were found according to the age groups. Nevertheless, females in age group 19-24 reported higher non problem-focused coping than others. These results seem consistent with previous studies that have found that women more likely to use emotional focused coping when they experienced stressful experiences (Fernando, et al., 2010; Kelly, et al., 2008). The current results showed that females tend less to use active coping and instead they tend much to use non problem focused coping, this may reflect a tendency to eliminate the emotional effects of a traumatic stress rather than confront it. This may explain the high level of PTSD in women compared to men. It has been found that emotion focused coping in general and an avoidant coping in particular, is generally associated with worse the general mental health outcomes (Coyne & Racioppo, 2000)

With respect to posttraumatic cognitions, females showed more negative cognitions about self (NCS) than males, while males showed more negative cognitions about the world (NCW). This may stem from a socialisation process that makes females more dependent on others. Therefore this can lead them to be more vulnerable and perceive traumatic events as out of their ability to deal with. According to Heider (1958), these perceptions may impact their self-

esteem, which can lead to negative cognitions about themselves, when they confront traumatic events. The results of the current study regarding NCS are consistent with another study conducted by Daie-Gabai, Aderka, Allon-Schindel, Foa, and Gilboa-Schechtman (2011) have found that females also showed higher NCS. In contrast, their study found no significant differences in NCW which is different from the current study.

The current results demonstrate that participants reported perceiving more support from their families than friends or GO-NGO with no significant differences between males and females. Consequently, they showed more satisfaction with the reported support received from their families. However, the social support provided by friends for males was higher than for females. These results are not consistent with results of some previous studies where women reported higher received social support than men (i.e. Kendler, Myers, & Prescott, 2005; Okamoto & Tanaka, 2004; Shumaker & Hill, 1991).

Depression and anxiety symptoms were assessed and the results revealed that anxiety symptoms were reported more than depression; 59% vs 49% of participants. This high level of anxiety symptoms may due the widespread of traumatic events in Iraq that form a continuous threat of people life. Females reported more depression symptoms, which could be considered as probable clinical cases according to the HADS norms, than males. No significant differences were found in anxiety between males and females. These results are not consistent with the findings from a review of studies using the HADS (Herrmann, 1997). Herrmann found that HADS anxiety was higher in women than men and there was no significant difference in depression in most of the

reviewed studies (e.g. Ali, et al., 1993; Lam, Pan, Chan, Chan, & Munro, 1995). This inconsistency may be due to the nature of participants in these studies where all of them were patients, whereas the current study participants were young university students. This viewpoint is supported by other research findings of the general population studies which evidently found that prevalence rates of major depression in women were higher than men (Bracke, 2000; Gater, et al., 1998; Ronald C. Kessler, et al., 1994; Organization & Epidemiology, 2000; Piccinelli & Homen, 1997).

With respect to the relationship between PTSD and anxiety and depression, participants whose PTSD were high also reported comorbid depression and anxiety symptoms. These results are similar to these findings of previous studies (Alhasnawi, et al., 2009; R. C. Kessler, et al., 1995; O'Donnell, et al., 2004; Person, et al., 2006; Solomon, Dekel, & Mikulincer, 2008). This clearly demonstrates that the aftermath of trauma involves not only PTSD but disorders such as depression and anxiety. This is further evidence that PTSD is highly comorbid with other disorders, and therefore any assessment of the trauma-related symptoms should consider assessing, in addition to PTSD, depression and anxiety as well. This also may highlight the need to modify the medical model of PTSD. It is of interest examining which of depression and anxiety symptoms that commonly evoked with PTSD. Thus, it is worth studying a new model that comprised current PTSD criteria as well as certain depression and anxiety symptoms.

There is no evidence available to show whether the participants of the current study firstly developed PTSD or depression and anxiety symptoms. Although,

this kind of cross-sectional study is limited because it was carried out at one time point, it provides significant indications of the association between the risk factors and PTSD. It is also acceptable to study this association in a situation like that in Iraq where traumatic events have been occurring on an ongoing basis. Nevertheless, this suggests a need for a longitudinal study to assess that in future. The suggested study may recruit participants with no experiences of traumatic events and follow them over time. For example, conduction a study involving army recruits without trauma experience and follow them to explore which of PTSD, anxiety, or depression symptoms emerge firstly after a trauma experience.

7.1.2 The predictor model of PTSD

Examining variables that could predict PTSD revealed variables including coping strategies (i.e. active coping, seeking support, and non problem focused coping), number of traumatic events variables, negative cognitions about self, and perceived social support from family. Figure 7-1 shows the effect of each factor on the severity of PTSD. It demonstrates that coping strategies, such as active coping and seeking support, and perceived social support from family could reduce the severity of symptoms. In contrast, traumatic events either experience personal and/or by family members or friends, non problem focused coping, negative cognitions about self could associate with a high likelihood of PTSD.

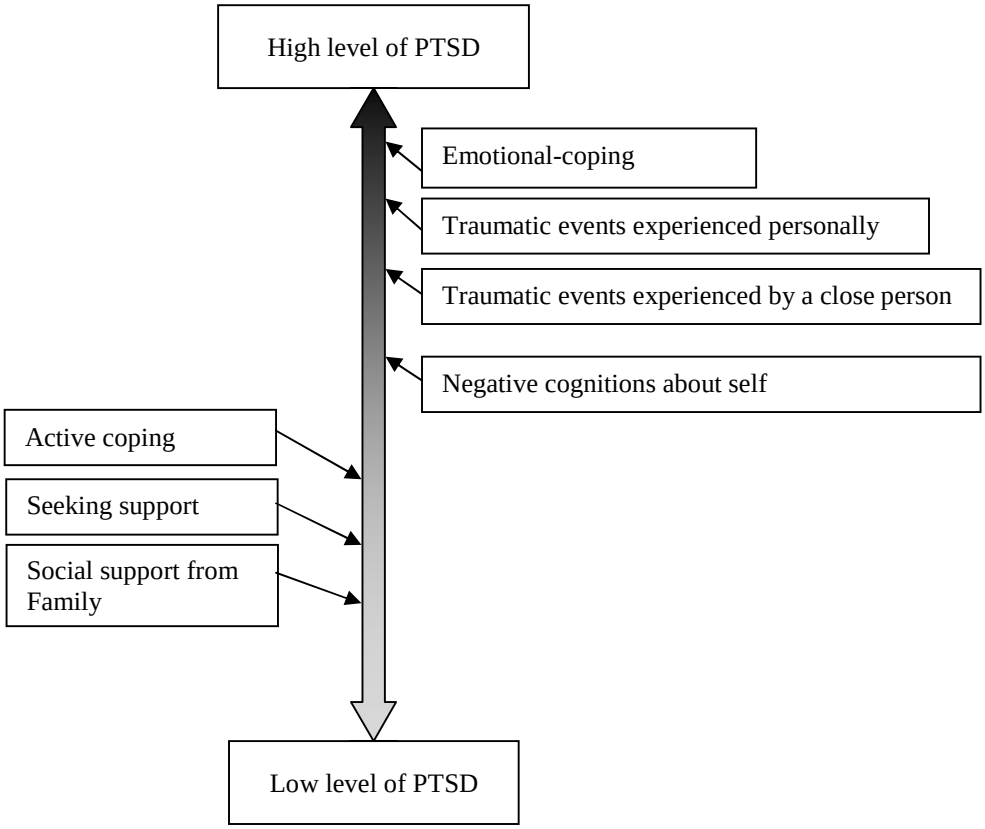

Figure 7-1:Risk Factors predciting PTSD.

In terms of sex differences, the predicted model of females is approximately as same as the model of all participants, except the negative cognitions were about self and the world not only about self. This similarity may because most of the participants were female. For male, the model also is quite similar, except social support and traumatic events experienced by family members or friends were excluded. This because males may are taught to be more independent and therefore they may tend to report less perceive social support and also to focus on events that they experienced rather than their family members or friends. The predictor role of each variable is discussed here.

7.1.2.1Traumatic events

The study shows that traumatic events experienced by both participants themselves or their family members or friends were predictor variables of PTSD. These findings seem to be corroborated with previous research into the relationship between the number of experienced traumatic events and PTSD (E. B. Carlson & Rosser-Hogan, 1991; Cheung, 1994; Patrick Smith, et al., 2002). In other studies, the number of war-related traumatic events but not exposure of family members was a predictor variable (Kilbourn, 1993; Urrutia & Carla, 1996), while another research study found that a significant relationship between PTSD and exposure of close family members to violence (Dorsett, 1995; Moses, 1996). In fact, it is not surprising that experiencing traumatic events can lead to trauma-related symptoms. Especially, these incidents occur on ongoing and multiple bases in Iraq. Therefore, the SHG included information about traumatic events in terms of type, related emotions, potential distress as well as how to deal with them.

7.1.2.2Coping strategies

With regard to coping strategies, these results are supported by the findings of many previous studies about the relationships between PTSD and coping (e.g. Eriksson & Lundin, 1996; Galea, et al., 2005; S Joseph, et al., 1997; R. C. Silver, et al., 2002; Stewart, et al., 2004). This study found that using strategies, such as active coping (i.e. active coping, positive reframing, and planning) and seeking support (i.e. emotional and instrumental support) related significantly to the decreased level of PTSD. In contrast, a higher level of

PTSD was associated with using non problem focused coping strategies (i.e. self-blame, and behavioural-disengagement). This is also similar to what was found in a number of previous studies (Aldwin & Revenson, 1987; C. M. Arata, Picou, Johnson, & McNally, 2000; C. C. Benight & Harper, 2002; Langley & Jones, 2005). However, the current results about the predictive role of coping strategies are different from some studies that have found no significant relationships between PTSD and coping strategies, for example (Navia & Ossa, 2003; Punamäki, et al., 2008).

People who use active coping and planning strategies try to take actions to deal with traumatic situations and make them better. They also try to have a strategy about what to do and the steps that should be taken. These can help to cope effectively with traumatic stress and their aftermath, and that may lead to a decrease in the likelihood of developing PTSD. These strategies can be described as direct actions to deal with the incidents. In contrast, strategies such as non problem focused coping that includes self-blame and self-disengagement focus on criticizing and blaming self for what happened or doing something to think less about events, e.g. going to movies, watching TV, reading, daydreaming, sleeping, shopping, or turning to work. These actions are examples of avoidance behaviours that aim to reduce the emotional distress. Because the avoidance behaviours are attempts to escape from the distressful feelings (Charles S. Carver, 2006) rather than behave actively to overcome the symptoms, PTSD may become worse with using such strategies; this is consistent with the results of (Schnider, et al., 2007).

Carver (2006) attributes the use of negative emotional – focused strategies, such as self-blame and behavioural-disengagement, to their feelings that stressors are uncontrollable. This is really the feature of traumatic events in Iraq. Moreover, he thinks that positive emotional strategies, such as positive reframing, can be the first step to deal effectively with stress using problem-focused strategies, such as planning and active coping. This is supported by the current results that showed that active coping strategies, which associated with a low level of PTSD, included the subscales of active coping and planning as well as one item of the subscales of positive reframing and religion.

Therefore, it is clear that coping strategies are the cornerstone in the onset and maintenance of PTSD. It was essential that coping strategies had to be included in the SHG to help traumatised people to overcome the aftermath of traumas by empowering the coping resources.

According to Lazarus's definition of coping (1998), coping is cognitive and behavioural efforts that are continuously changing to deal with stressful events. Moreover, these efforts are based on a number of resources including health and energy, positive beliefs, problem-solving, social skills, social support and material resources. Consequently, the SHG aimed to target these resources to improve problem-solving, positive beliefs, social skills and seeking social support as this could lead to enhance the coping strategies.

7.1.2.3Posttraumatic cognitions

According to the results of this study, posttraumatic cognitions play a predictor role in PTSD but in a slightly different way to coping. Negative cognitions

about self were a predictor in total model and males' model as well. The total negative cognitions about self and the world were a predictor in females' model. These results support previous studies that were conducted to examine the predictive role of posttraumatic cognitions and also their relationships with PTSD (Bennett, et al., 2009; Dunmore, et al., 1999, 2001). Moreover the results regarding negative cognitions about self are consistent with the results of other studies of (Daie-Gabai, et al., 2011; Lommen, et al., 2009; Moser, et al., 2007; Müller, et al., 2010; O'Donnell, et al., 2007; Startup, et al., 2007). A possible explanation of a role of negative cognitions about self in developing and maintaining PTSD is that exposure to uncontrollable incidents, like those that have been occurring in Iraq, make traumatised people feel helpless and unable to confront. According to Foa, Steketee, and Rothbaum (1989), these traumatic events either disconfirm the competency or confirm the incompetency of self, therefore making the victims more likely to avoid any thought, actions, and reminders that related to their traumatic experiences. Therefore, more negative cognitions can be associated with more PTSD. Consequently, it was inevitable that one of the aims of the SHG was to change the negative cognition about self. The guide had sections that demonstrate the normality of symptoms aftermath traumatic experiences. In addition, the guide provided coping skills that could enhance the competency of self to deal with traumatic experiences that could disconfirm the negative cognitions about self.

7.1.2.4Social support

The current results showed that social support received from family was a predictor variable of PTSD, while social support perceived either from friends and GO-NGO were not. The results about the positive role of social support are consistent with the results of other studies, for example (J Ahern, et al., 2004; Bleich, et al., 2003; C. R. Brewin, et al., 2000; Guay, et al., 2006). In terms of the sources of social support, the study found a different result with regard to support perceived from family, whereas some previous studies found that high support received from friends, but not from family, correlated with low PTSD (Haden, et al., 2007; Klarić, et al., 2008; Pina, et al., 2008).

Taylor (2006) cited a research that showed that social support clearly decreases mental distress. This is consistent with the current findings which showed that low PTSD were associated with high perceived social support from family. Social support may act as a buffer against the effects of traumatic events whereby emotional support and informational support can directly meet needs, such as loss of control or uncertainty that resulted from stressful incidents (Uchino, 2004). Experiencing traumatic incidents could lead to feelings of fear and helplessness and thoughts of loneliness and threat, social support makes people feel loved, cared for and they are not alone (Taylor, 2006). In Iraq, people provide support not only because they want to do it but also as a part of their duties towards each other, especially for family members. This support takes different forms emotionally by expressing feelings of love, understanding, and involvement. In addition, the family in Iraq is extended so

they help traumatised members financially; help them to accept what occurred as an accident. Moreover, using religious activities, such as pray and asking the God for help may play as buffer against traumatic experiences. Therefore, developing an intervention programme to help traumatised people to overcome their sufferings should consider low social support as a risk factor for PTSD and giving no attention to this issue may lead to failure of the programme (Tarrier & Humphreys, 2004). Consequently, the SHG encouraged people seeking support and also use the support resources available for them.

In conclusion, the findings of current study support the hypothesized model. Copings strategies, such as active coping and seeking support as well as perceived social support from family are associated with decrease the likelihood of developing PTSD. In contrast, non problem focused coping and NGS as well as number of traumatic events are correlated with developing PTSD.

7.1.3 The findings of the effectiveness of SHG

Although self-help books for PTSD are widely used, their effectiveness has been rarely studied (Ehlers, et al., 2003; Hirai & Clum, 2006). In the same way, it has not been documented using self-help materials for traumatised people in Iraq. The present study was mainly designed to develop and examine the effectiveness of a self-help guide. The results of current study showed that PTSD could be predicted by coping strategies, posttraumatic cognitions, and social support. Therefore, the guide was designed to help university students in Iraq to develop and/or enhance problem focused strategies, reduce the negative

cognitions about self, and use the social support resources to overcome trauma-related symptoms.

The baseline tests showed that the participants in both groups; experimental and control, had a similar level of PTSD, coping strategies, posttraumatic cognitions, depression and anxiety symptoms, and social support. Exceptionally, the participants in the control group reported more social support received from family than those in the experimental group. The participants in the experimental group used SHG for at least six weeks, but the control group did not.

Although PTSD were less reported in both groups at the post tests compared with the pretests, the participants in the experimental group significantly reported less severity of PTSD than those in the control group at the post tests. In terms of PTSD clusters, the reported avoidance and re-experience symptoms were fewer by the users of SHG than nonusers. The reported hyper arousal symptoms were not significantly changed in both groups at the post tests. This result is consistent with Hirai and Clum's study (2005) that have found that hyperarousal symptoms were not affected by an internet-based self-change programme.

A possible explanation is that re-experience and avoidance symptoms can be triggered by things, words, events, and situations that remind people of the traumatic event, while hyper arousal symptoms may be constant and not being triggered by trauma-related reminders. In addition, the hyper arousal symptoms have responses of a biological nature (Henline, 2005), for example, sleep

difficulties, hyper vigilance, exaggerated startle responses and related responses, such as shuddering and sweating. Other researchers posited that chronic alterations in the central neurotransmitter systems lead to the physiological hyperarousal following traumatic incidents (van der Kolk & Greenberg, 1987). Therefore, these physiological changes following trauma may not respond to such intervention programme. The time using the guide may not be enough to produce changes in hyper arousal symptoms. Some of the participants mentioned that the time was not enough for them; thereby they suggested using the SHG for a longer period. In addition, the individual differences may make traumatised people need different approaches to deal with traumatic experiences and symptoms. This also could indicate that the effects of the SHG may depend on the severity of PTSD. A further research is required to examine the guide's impact at different levels of symptoms.

With regard to coping strategies, the current study found significant improvements within the experimental group after using the SHG. These improvements were increased using seeking support and active coping and decreased using non problem focused coping. The participants in the control group reported more use of non problem focused coping including self-blame and behavioural-disengagement.

In terms of posttraumatic cognitions, the results of the current study showed that the negative cognitions about self were significantly less within the experimental group after use of the SHG. Moreover, the participants in the experimental group reported less negative cognitions than their counterparts in the control group. Negative cognitions about the world were not significantly

changed. This may because traumatic events in Iraq are continuous and leading to varying casualties in people. Therefore, people still recognise their environment as an extremely unsafe place.

The participants in both groups reported a similar level of social support received from family, friends and GO-NGO at the post tests. Importantly, this supports that the reported reductions in PTSD and depression symptoms as well as the changes in coping strategies and posttraumatic cognitions are due to use of the SHG.

Anxiety symptoms did not changed significantly over time in both groups, while the participants in the experimental group reported fewer depression symptoms than those in the control group. Acquiring new skills to deal with post traumatic stress symptoms helps people to be having more control and insight in their symptoms. Daie-Gabai, Aderka, Allon-Schindelet al. (2011) found that NGS has the strongest association with PTSD and depression. Therefore reducing NGS as result of using the SHG may lead to reduction in PTSD and depression as well. In contrast, the continuous exposure to traumatic events makes people in Iraq continuously under threat and increases their concern about their life and biological integrity. Consequently, a high level of anxiety symptoms is expected. This may show that depression symptoms are more responsive to the current SHG than anxiety symptoms.

To find the variables that contributed to PTSD after use of SHG, multiple regressions with stepwise method were conducted. The results suggest that variables, such as active coping, seeking support, and non problem focused

coping as well as negative cognitions about self were significant contributors in the variance of PTSD scores. This shows that using the guide may enhance the coping strategies and in conjunction improve the cognitions about self. Consequently, people have more control and ability to actively deal with their traumatic experiences and therefore overcome their suffering and/or prevent maintaining the symptoms to be chronic.

The reduction of PTSD reported by the participants in the current study following use of the SHG could be explained that the guide could help developing positive coping strategies. This occurred through improve the coping resources. The techniques of overcoming trauma-related symptoms may improve problem-solving. In addition to these skills, proper information about traumatic stress could relate to more feelings of control. This could lead to develop positive beliefs that could enhance coping efforts. In addition, as the participants generally reported that the guide was useful, this may help them develop such positive beliefs. Furthermore, having skills to solve problems and positive beliefs may help the participants to overcome their symptoms and be healthier and ability to deal with future incidents.

According to the American Psychological Association's Task Force on Self-Help Therapies, the educative and preventive functions are several advantages of self-help materials (Gerald M. Rosen, 1987). Moreover, Bergsma (2008) attributes the positive effects from reading self-help books to their role in encouraging active coping. In the current study, the ways that were presented in the guide to deal with traumatic experiences may contribute improving

problem-focused strategies, such as active coping and seeking support. In a parallel way, non problem focused strategies were reduced as well.

In conjunction, having effective coping skills as well as psychoeducation information about the normality of feelings following a traumatic event could help disconfirming their negative posttraumatic cognitions about self and the world. According to emotional processing theory (Moser, et al., 2007), PTSD occurs when a person has experienced a traumatic event that either disconfirms the perceptions about the safety of the world and competency of self, or, in contrast, conforms the negative cognitions about the world and self. In the natural recovery after trauma, these cognitions could be disconfirmed through the daily interactions with their environment if they have not had more traumatic experiences and function well (Foa & Cahill, 2001). In Iraq, the continuous exposure to traumatic incidents associated with the lack of skills to cope actively with these traumatic experiences may prevent the natural recovery.

The guide focuses on providing information about traumatic and life events, post traumatic symptoms, and shows the normality of symptoms and feelings after trauma. The participants clearly stated that the guide provides information that was entirely new for them. This information may help them to change positively what they used to think about their feelings.

The positive coping strategies may lead to disconfirm the idea of the self as incompetent. Consequently, the participants with productive coping strategies will be able to face trauma-related thoughts, stimuli, and activities and

therefore preventing the development of PTSD and reduce the severity of symptoms. Benight and Bandura (2004) emphasize the essential role of interventions that target developing coping skills to help empower survivors to cope more effectively with the aftermath of trauma. This supported by Kanninen, Punamaki, and Qouta's study (2002) who have found that the mean giving to traumatic experiences and the coping ways that people use were associated with the aftermath of trauma. Therefore, developing positive coping skills could participate in reduction the severity of PTSD.

It seems reasonable to hypothesize that the SHG could possess potentiality to help traumatised people to deal and overcome their posttraumatic symptoms. Interestingly, the participants in the control group tended to use more self-blame and behavioural-disengagement which means that those participants had more tendencies to avoid interactions with their environment. This also may reflect the negative cognitions about self and the world those people had. It may suggest that using the guide may prevent use non problem-focused strategies.

Therefore, it is important to state that using of the SHG is better than not using it. Although self-help materials are not as effective as cognitive therapy, PTSD were decreased over time after using a self-help booklet (Ehlers, et al., 2003). Moreover, self-help materials were found more effective than placebos or waiting lists (Den Boer, et al., 2004). The results of the current study are supported by a meta-analysis of bibliotherapy studies that found that these treatments are effective for emotional disorders with effect sizes range from 0.5 to 1.1 (Redding, et al., 2008). Moreover, the SHG had significant effects with

participants who reported symptoms that fully PTSD criteria, then it could be useful for those who partial PTSD; the current results showed that more than a half of participants reported symptoms that partially meet PTSD criteria. Therefore, the guide could play a preventive role in the development of PTSD.

The current study did not examine the impacts of the components separately as the aim was to examine whether a self-help guide could work or not. However, Halliday (1991) describes some most attractive features that should be included in a self-help book. These features were positive attitudes, encouragement, seeking a professional help advice, general self-understanding, and dealing with a specific problem. The SHG in the current study was designed to deal with one problem, which was the problem of traumatic events in Iraq. The guide also aimed to provide understand of traumatic events in Iraq and their aftermath, and therefore encourage dealing with them more actively. In addition, contact and further information resources were included. Moreover, the SHG had characteristics that were described as most helpful: quizzes, targeting one problem, measurements of progress, tasks, and case examples (Pantalon, et al., 1995). The effectiveness of SHG might be attributed to these features that it has.

There are some criticisms relating to the use of the guide. Some of the participants reported that the guide had language expressions that were hard to be understood. In addition, the guide is suitable or well educated people. This might affect the generalisation of the guide. Therefore, some changes especially in terms of the language expressions of the Arabic version were

considered. Developing a version for less educated people may be an aim for future research.

In conclusion, the results of current study of the effectiveness of the SHG may show that the design of the guide was successfully based on the three stages of theories of self-regulation of Bandura (1986) and Kanfer (1975). These stages are self-monitoring, self-evaluation, and self-reinforcement. With respect to self-monitoring, the guide provided information needed for traumatised people to establish realistic goals which are how to deal with traumatic experiences. Therefore, information was provided about traumatic events, trauma-related symptoms, coping skills. In addition, the SHG had self-diagnosis to assess the progress gained during the use of the guide. In terms of self-evaluation, using the SHG could help people to evaluate coping skills that they currently use and compare them with the provided skills in the guide. Consequently, the use of the SHG could help people enhance the active coping strategies and reduce the non problem focused coping. Finally, in self-reinforcement; the reduction of PTSD, as a result of using the problem-focused coping could reduce trauma-related symptoms and improving their abilities to deal with traumatic stress, may encourage people to use problem-focused coping rather than non problem-focused coping.

Finally, the results of the significant associations between coping strategies, posttraumatic cognitions, and social support and trauma-related symptoms support various theoretical explanations of PTSD. For example, the significant predictor role of coping strategies, posttraumatic cognitions, and social support for PTSD collaborates with the model that has been suggested by S Joseph and

Williams (2005). They suggest a framework to explain posttraumatic stress reactions. They state that variables, such as coping strategies that affect the development of these reactions, where active coping but not avoidant could reduce the likelihood of developing symptoms. In addition, social support could play an important role to reduce the impact of traumatic events. Moreover, PTSD could be maintained by the ongoing traumas (Chris R. Brewin, et al., 1996), which is the case in Iraq.

These results also consistent with emotional processing theory of Foa and her colleagues (Foa, et al., 1989). They suggest that chronic PTSD is underlain by incompetence and danger reinforced by a traumatic event. The ongoing traumatic events in Iraq have been occurring on ongoing basis and that may emerge negative cognitions about self, as not able to deal with this amount of stress, and the world is not a safe place. In a similar way, Ehlers and Clark (2000) assume that the exposure to a traumatic event lead to a sense of threat. This sense could increase the pathological responses. The threat is a result of the way of processing the traumatic information. This process could impacted by strategies intended to control threats and also negative appraisals of trauma and/or sequelae. Coping strategies that people use may affect their appraisals of trauma and their aftermaths. Therefore, that may lead either to increase or decrease the pathological responses.

7.2 METHODOLOGICAL FINDINGS

In the current study, six self-report scales were developed and/or validated to achieve the aims of this study. The Baghdad Trauma History Screen (BTHS)

comprised 20 events and was developed to measure trauma history. These events mainly included war and violence-related incidents, such as explosions, migration or displacement, fires, abuse/assault sexual, witness killing attempts, kidnap, and military attacks. The BTHS was based on criteria A1 and A2 of DSM-IV. As most of the studies about PTSD were conducted in populations have not experienced incidents like those that have been occurring in Iraq, it was reasonable to develop such a scale to be appropriate for measure traumatic events in Iraq. This scale could be used in future studies that conduct in conflict areas that experience incidents like these have occurred in Iraq.

To screen PTSD, the screen for posttraumatic stress symptoms (SPTSS) (E. B. Carlson, 2001) was validated. Although the SPTSS was used with Iraqi participants in Jordan, its psychometric properties have not been published yet. Its main feature is that the phrasing of symptoms does not tie them to a certain traumatic incident. It is also brief as it has only 17 items which represent PTSD. Other self-report scales were not suitable to be used in the current study for various reasons. Some of them were based on DSM-III or DSM-III-R and/or for a specific. Others were developed to assess PTSD that are tied to a certain single event.

No cope scale was available to be used in the current study. The Brief Cope (C. Carver, 1997) was used to examine coping strategies in the current study. The Brief Cope originally consists of 14 subscales with two items in each scale. The results of validation revealed that four of its subscales: denial, venting, humour, and acceptance had low internal consistency and consequently, these subscales were removed. The final version of the Brief Cope, which was used

in the current study, comprised 20 items in ten subscales in four factors: seeking support, active coping, non problem focused coping, and substance use. These results partially are consistent with the results of Khaya's study (2007) where venting and acceptance subscales had Cronbach's Alpha scores lower than .50. Similarly, Tuna (2003) found that those two subscales also had Crobach's Alpha scores lower than .50 and therefore, they were excluded. In the current study, the low Cronbach's alpha appeared to be related to the nature of traumatic events in Iraq. The ongoing exposure of traumatic incidents associated with a persistent focus of media on these events makes denial impossible. This also can be said regarding acceptance; the continuous exposure makes people try to live with these incidents, and be familiar with them. In terms of venting, only talking about distressful emotions might not be an effective way to deal with them. In addition, as one of the signs of posttraumatic symptoms, people try to avoid talking about these distressful experiences. For humour, it might be terribly hard for people who lost their close persons, who were forced to leave their homes, or witnessed killing and kidnap attempts to deal with these distressful experiences by joking or making fun of these traumatic situations. A recent study described documented casualties in Iraqi civilians as a result of suicides bombs in Iraq from 2003 to 2010, and they found that these suicides bombs caused 42928 casualties that were either injured or killed. This is besides 182861 casualties caused by other armed violence actions (Hicks, et al., 2011). Consequently, it cannot be imagined that those victims can make fun of these incidents. The four factors

model of Brief Cope may provide a clearer image of coping strategies that people use to deal with traumatic experiences.

With respect to posttraumatic cognitions, studies were conducted to assess the relationships between PTSD, and posttraumatic cognitions found a predictor role of these cognitions of the severity of PTSD (Bennett, et al., 2009; Dunmore, et al., 1999, 2001). No evidence was available to confirm the investigation of posttraumatic cognitions in Iraq, nor was the PTCI used with Arabic speaking participants. Thus, it was of interest to consider this variable to address its role in predicting PTSD. The Posttraumatic cognitions inventory (PTCI) (Foa, et al., 1999) was validated in this study. Originally, it comprised 33 items in three subscales; 21 items for negative cognition about self (NGS), seven items in world (NGW), and five items in self-blame subscale (BLAME).

Unlike the original PTCI version, factor analysis led to a model with two factors rather than three. All BLAME items and NGS items, except one, were loaded on one factor. In addition, one item of NGS and all NGW items were loaded on the other factor.

Possible explanations of loading BLAME items and NGS items on one factor may be due to the nature of traumatic events in Iraq, where these events entirely are out of control. For example, the exposure to military attacks or car explosions when people are either in their houses or on their way to work cannot be related to the ways that people act, to their personality, or their abilities to prevent these incidents occurring. The results might also suggest that there is not a real distinguish in PTCI between the items contents of

BLAME and NGS subscales. Particularly, when it is used with participants who were exposed to incidents of the kind that have been occurring in Iraq. This is also can be applicable for the item from NGS that loaded with NGW. The item “I can’t stop bad things from happening to me” may indicate that the inability to stop bad things in Iraq is not related to the personal capability, but to the nature of traumatic events. These events occur on ongoing bases and are multiple and interrelated.

There is no evidence to confirm that the predictor role of social support in PTSD has been examined in Iraq yet. A social support scale was developed due to the cultural nature of social support, the nature of stressful experiences in Iraq, and lack of such scale in Iraq. The scale was to assess the perceived support from three sources; family, friends, and governmental and nongovernmental organisations and also to rate satisfaction with support. The final version of scale comprised 13 items: 11 to measure the perceived support from the three sources and two to assess the satisfaction with the perceived support. The current study provides a valid and reliable tool to measure social support. This could facilitate further research of the relationship between social support and distressful experiences in Arabic populations in general, and especially in Iraq.

The current study also aimed to assess the depression and anxiety beside PTSD using HADS (Zigmond & Snaith, 1983). HADS is commonly used in various languages and populations. Furthermore, HADS was translated into Arabic language and used with Arabic populations (O. El-Rufaie, et al., 1988; O. E. el-Rufaie & Absood, 1987; O. E. F. El-Rufaie & Absood, 1995; Malasi, et al.,

1991). The Arabic version was used in the current study after modifying the translation of one item, which had a translation problem. The item (I get a sort of frightened feeling like “butterflies” in the stomach), due to cultural factors, had a problem in the Arabic studies because the phrase “butterflies in the stomach” is not known in Arabic culture. The translation of the item was reworded to express feelings of fear and tension.

The results of HADS validation demonstrate that while there is a good two factor solution corresponding to anxiety and depression, item 4 “*I can sit at ease and feel relaxed*” did not fit the anxiety subscale, as found in previous research (Bjelland, et al., 2002). Furthermore, it did not discriminate between people with low and high levels of PTSD. It may be that the response to this item does not indicate anxiety in Iraqi participants because the people there can rarely feel relaxed due to the nature of traumatic events in Iraq that occur on ongoing and repeated bases, so it may be normal that people have become inured to the physiological reactions to fear. Factor analysis resulted a model of two factors; depression of seven items and anxiety of six items. Although, removing item 4 may still a subject of debate, the results of HADS validation in the current study suggest using the 13 item version (6 in anxiety subscale, 7 in depression subscale). This issue may require further research in the future.

7.3 IMPLICATIONS

The feedbacks that received from the participants via the focus groups were considered and the guide was revised. The revised version was presented to publication committee in Educational Studies and Psychological Research

Centre in the University of Baghdad. They approved the guide to be published. They recommended that SHG can be used in counselling units in the universities. The guide has been already published and has been being freely distributed into most of the Iraqi universities (Jaber, Hunt, Sabin-Farrell, & Alqaysi, 2011).

In addition, SHG can be used in the outpatient clinics of mental health in Iraq. Particularly, for those who have partial PTSD as long as the guide was useful for the participants who reported full PTSD.

People who used the guide and found it useful may be able to help others how understand their traumatic experiences and deal with their symptoms.

In the current study, it is not claimed that the SHG is an alternative for seeking a professional help. Neverthless, the SHG can be suggested as an adjunct treatment in outpatient clinics in Iraq. Gould and Clum (1993) found a significant effect of integration of self-help books with professional therapies.

Based on the current research, PTSD can be significantly predicted by negative cognitions about self and the world. In addition, it was found that present information in psychoeducation framework could help people gain an appropriate understanding of traumatic stress. Therefore, it could be useful that media and relevant institutions in Iraq encourage traumatised people to understand the normality of their traumatic experiences and how to deal with.

Furthermore, the self-report scales that developed or validated in the current study can be used in clinics or counselling units to assess trauma history, PTSD, coping strategies, posttraumatic cognitions, HADS, and social support.

The results of the current study support the results of previous studies about the sensitivity of the Brief Cope scale, PCTI, HADS, and SPTSS to measure the changes following an intervention programme. Therefore, these scales could be used to measures the changes in coping strategies, posttraumatic cognitions, and depression, anxiety, and PTSD after treatments in outpatient clinics.

The current study found that coping strategies were changed and that associated with reduction in the severity level of PTSD. Consequently, it could be useful for those who work with traumatised people to help them to develop problem-focused coping strategies.

The current results showed that low social support was perceived from the governmental and nongovernmental organisations. Hence, it is essential that organisations, such as Ministry of Health, Ministry of Higher Education and Scientific Research, and Ministry of Education play more effective role to provide mental health services for traumatised people. This could be done through establishing a national centre of traumatic stress to conduct research about traumatic stress and offer mental health services for traumatised people. In addition, it is important to encourage and support nongovernmental organisations to be established to deal with the survivors of traumatic events.

The current study found that those who reported a high level of PTSD also reported a high level of depression and anxiety. Therefore, it is essential that psychologists and psychiatrist who work with traumatised people assessing depression and anxiety symptoms in addition to PTSD and take that in account during the treatment.

7.4 LIMITATIONS

Although the current study provides interesting results, there are limitations. The first experimental design of study had to be changed due to some practical reasons (see page 84) and that might limit the conclusions about the results. For example, if it was possible to carry out the first design, it was much possible to provide evidence that the changes in PTSD, copings strategies, and posttraumatic cognitions were not only due to use the guide but also to its contents. Nevertheless, the participants reported that techniques and information that were provided were helpful, however there were some problems regarding the contents and language which may need to be taken in account to revise the guide.

For the same reasons, data collection mainly relied on self-report scales rather than conducting interviews. For varying reasons, including the security situation and unavailability, it was not possible to have a psychiatrist in Baghdad to conduct diagnoses of some of participants to be used as criterion validity. In addition, it was not possible to conduct a follow up study for security and practical reasons.

To eliminate subjective bias from the participants and researchers on the experimental group, a double blind experiment is ideal. However, for several practical reasons (e.g. the unavailability of well-trained person to the assessment and the limited time was available to conduct the experiment) the experiment in this study was not double blind. This might affect the

significance of the results as the participants in the experimental group positively interact with using SHG.

The results of this study were based on data collected from university students. This might limit the generalization of these results on the general population. Nevertheless, the results of this study are consistent with other studies' results regarding the predictive role of social support (J Ahern, et al., 2004; Bleich, et al., 2003; C. R. Brewin, et al., 2000; Guay, et al., 2006), coping strategies (e.g. Eriksson & Lundin, 1996; Galea, et al., 2005; S Joseph, et al., 1997; R. C. Silver, et al., 2002; Stewart, et al., 2004), and posttraumatic cognitions (Bennett, et al., 2009; Dunmore, et al., 1999, 2001) . Moreover, these also consistent with a theoretical framework suggested by S. Joseph & Williams (2005).

The PTSD concept has been criticised from the cross-cultural perspective, therefore, further research is required to examine what these effects are. A study should be conducted in different cultures with similar situations; for example, the wars in Iraqi and Afghanistan. It was worth stating that the measures could be culturally impacted. Therefore, the translation-back-translation technique could not suitable to translate scales from a language to another. For example, the identical translation of the phrase "butterflies in the stomach" had no meaning for participants in the study of el-Rufaie and Absood (1987) as it does not exist in Arabic language. In addition, the "pray" word in an item of the Brief Cope scale has a different meaning for Muslims. Hence, in this study, before using the scales in collecting data a small sample of

participants were asked to explain the item contents to check whether these items reflect the English meaning (see Chapter 3 for further discussion).

The results showed that the recovery was not complete following the use of SHG. The guide can either help traumatised people to cope with certain symptoms (for example, re-experience and avoidance but not hyperarousal). This may indicate limitation of the SHG itself, either SH is not suitable to address hyperarousal symptoms or the content of the guide is not adequate. According to NICE guideline (2005) some of hyperarousal symptoms (e.g. sleeping difficulties) may need drug treatment not only psychological therapy. In addition, people may need longer time to use the guide.

Because of the small size of sample that used the guide the sex differences were not studied. Nevertheless, the predictor model of total participants did not differed markedly from the models of males and females.

The current results showed that some of the participants who used the guide reported some difficulties in understanding some of terms. The SHG is also not suitable for those with limited literacy skills. In addition, the effectiveness of its components has not been examined separately. In the current study, it does not show whether the guide's effects were related to the provided information about traumatic experiences, the coping skills, or both.

It was accepted using self-report scales to collect data due to that the participants were well educated and also the scales provide them with an opportunity to privately report their symptoms. These data might be subject to either overestimation or underestimation.

7.5 FUTURE WORK

The results of the current study demonstrate the need for more studies in this field. Because of the widespread of traumatic events in Iraq, developing new versions of the SHG, for example CD with multimedia techniques, is necessary for illiterate people and those who have not positive reading attitudes.

The experiment in this study was not double blind. Therefore, it may be important conducting a double blind experiment to prevent any bias that could affect the results of SHG.

This study is the first of its kind in Iraq. Therefore, its aim was to generally examine the effectiveness of a SHG. It would be of interest to examine the most useful components of the guide to make the necessary modifications that enhance its effectiveness. It is also suggested examining the link between the guide's components and coping strategies that may be improved. It is important to know whether the impact of the guide is because it provides information about trauma, coping strategies, or both.

The effectiveness of the guide could be examined in other populations. As Iraq has other communities, Kurdish and Turkmen, along with Arabic community, it could be of interest that the guide be translated into these languages and examine its effectiveness. The SHG was developed for people who mainly have experienced war- and violence-related traumas. Its effectiveness could be examined in other samples of victims, for example, the survivors of vehicle accidents, refugees, and asylum seekers how speak Arabic.

Although the SHG has, in the current study, significant impacts on improve coping strategies and then reduce posttraumatic cognitions and therefore decrease trauma-related symptoms, there remains controversy in this area as stated in previous studies. Therefore, it is worth comparing the effects of the SHG with other treatments to reduce trauma-related symptoms. In addition, its role as an adjunct tool in the professional therapy needs to be investigated with an outpatient population.

The effectiveness of the SHG was examined with a sample of a general population. It is important to conduct a RCT study with a sample of PTSD patients. Patients could be divided into three groups based on which of cluster symptoms are dominant to examine which of them are more responsive to the guide.

In the current study, PTSD was comorbid with depression and anxiety. Further research is required to examine which depression and anxiety symptoms are associated with PTSD. Moreover, it may be of interest to examine whether these symptoms are specifically evoked after exposure to traumatic events. In addition, explore whether these symptoms (depression and anxiety) can be predicted by same variables that predict PTSD.

The validation data of HADS suggested remove one item of anxiety subscale. It could be useful to study the validation of HADS in a sample of Iraqi patients.

In the current study, it was found that SHG helped improve coping strategies and posttraumatic cognitions and then led to reduction in the severity of PTSD. It may be of interest studying this relationship further to examine whether there

are other variables could affect this relationship. For example, using different formats of the guide (paper-based vs internet-based), or using the guide and contact with a psychological therapist.

The current results show that hyper-arousal symptoms and anxiety are not affected by using the guide. Hence, further research is required to understand why anxiety and hyper-arousal symptoms in people in conflict areas do not gain benefits from using a self-help guide. In addition, developing self-help materials for these specific symptoms should be considered in future work. It could be worth developing self-help materials that specifically dealing with the features of hyper-arousal symptoms or anxiety symptoms for people who live in conflict areas; for example, self-help guide for concentration difficulties.

The results of the current study show that the SHG significantly improves active coping strategies. Some studies showed that using active cope strategies found to be associated with posttraumatic growth (e.g. Rajandram, Jenewein, McGrath, & Zwahlen, 2011; Schroevers & Teo, 2008; Schuettler & Boals, 2011). Therefore, examine the effect of the SHG in facilitating posttraumatic growth would provide valuable insights into the guide's impacts.

The self-report scales that were validated in this study can be used in new researches in traumatic stress studies field.

7.6 CONCLUSIONS

The current results confirm previous findings regarding the significant relationship between PTSD and coping strategies, posttraumatic cognitions and

number of experienced traumatic events. The most interesting that the SHG can help traumatised people to improve and develop effective coping strategies and therefore enhance the competency of self with a sense of control. Consequently, the cognitions about self may changed positively and therefore improve the ability to face the traumatic stress situations rather than avoiding them.

Not only PTSD may be reduced as a result of the use of the guide but also depression could be reduced as well. This may be due to enhance people abilities to deal with traumatic experiences and have more control. Anxiety symptoms were not significantly influenced by the SHG. This may indicate that people in conflict areas may have ability to cope with the traumatic experiences but still experience anxiety symptoms. This may due the fact that traumatic events in Iraq have been occurring on ongoing basis and are interrelated.

The current study also supports previous research about the association between PTSD and depression and anxiety. However, an in-depth study of the relationship between PTSD and depression and anxiety is required to produce a modified model of PTSD.

The current study provides several self-report scales that have not been validated in an Iraqi population before. These scales will enable conducting more research in the field of traumatic stress either in Iraq or any Arabic – speaking population.

The results of this study have several implications. With respect to the guide, it can be used in the counselling unites in universities and outpatient clinics as an adjunct tool. In addition, the self-report scales can be used for screening and measuring in these organisations. The results about the predictor role of social support may encourage GO and NGO to present services support for traumatised people. The study also emphasizes the association between PTSD and other disorder, such as depression and anxiety. Therefore, mental health workers who deal with traumatised people should consider diagnosis and treatment these symptoms in addition to PTSD.

As this study is first of its kind, several studies are required to gain comprehensive understand of traumatic stress and intervention programmes. For example, examine new versions of the SHG, such as multimedia-based or internet-based. Assess its effectiveness in other non Arabic-speaking populations in Iraq. Conduct a RCT to examine the guide's effectiveness in a patient sample. Compare its role to other treatments such as CBT and EMDR. Finally, as the structure of HADS, PCTI, Brief Cope scales have been changed in this study, further research is required in other Iraqi populations.

References

Abdel-Hamid, A., Salim, G., AlQaisi, A. G., & Ahmad, M. (2004). *Survey of Ptsd in the Community of the City of Baghdad.* Paper presented at the 13th secientific Conference of Psychological Research Centre, Baghdad.

Abiodun, O. (1994). A Validity Study of the Hospital Anxiety and Depression Scale in General Hospital Units and a Community Sample in Nigeria. *The British Journal of Psychiatry, 165*(5), 669-672. doi: 10.1192/bjp.165.5.669

Abramson, J. H., & Abramson, Z. H. (2008). *Research Methods in Community Medicine : Surveys, Epidemiological Research, Programme Evaluation, Clinical Trials* (6th ed.). Chichester: Wiley, c.

Adshead, G. (2000). Psychological Therapies for Post-Traumatic Stress Disorder. *The British Journal of Psychiatry, 177*(2), 144-148. doi: 10.1192/bjp.177.2.144

Ahern, J., Galea, S., Fernandez, W., Koci, B., Waldman, R., & Vlahov, D. (2004). Gender, Social Support, and Posttraumatic Stress in Postwar Kosovo. *J Nerv Ment Dis, 192*(11), 762-770.

Ahern, J., Galea, S., Fernandez, W. G., Koci, B., Waldman, R., & Vlahov, D. (2004). Gender, Social Support, and Posttraumatic Stress in Postwar Kosovo. *J Nerv Ment Dis, 192*(11), 762-770.

Ahmad, A. (2008). Posttraumatic Stress among Children in Kurdistan. *Acta Pædiatrica, 97*(7), 884-888.

Ahmad, A., Knorring, A.-L. v., & Sundelin-Wahlsten, V. (2008). Traumatic Experiences and Post-Traumatic Stress Symptoms in Kurdish Children in Their Native Country and in Exile. *Child and Adolescent Mental Health, 13*(4), 193-197.

Ahmad, A., Qahar, J., Siddiq, A., Majeed, A., Rasheed, J., Jabar, F., et al. (2005). A 2-Year Follow-up of Orphans' Competence, Socioemotional Problems and Post-Traumatic Stress Symptoms in Traditional Foster Care and Orphanages in Iraqi Kurdistan. *Child: Care, Health and Development, 31*(2), 203-215.

Ahmad, A., Sofi, M. A., Sundelin-Wahlsten, V., & von Knorring, A. L. (2000). Posttraumatic Stress Disorder in Children after the Military Operation "Anfal" in Iraqi Kurdistan. *European Child & Adolescent Psychiatry, 9*(4), 235-243.

Al-Kubaisy, N. (1998). *Construction a Scale of Post Traumatic Stress Disorder.* Unpublished Master thesis, Mustansiriya University, Baghdad.

Al-Kubaisy, N. (2004). *The Impact of a Program of Psychological First Aid in Reducing the Symptoms of Acute Post Traumatic Stress Disorder.* Unpublished PhD thesis, Mustansiriya University, Baghdad.

Al-Kubaisy, N., & Al-Kubaisy, T. (2007). *Post Traumatic Stress Disorder (Ptsd) among Baghdad University Population after the Occupation*. Paper presented at the The first scientific conference of the services and aid psychological and mental health care after disasters, Abu Dhabi, UAE.

Al-Kubaisy, N., & Al-Kubaisy, T. (2010). *Post Traumatic Stress Disorder among Iraqi Intellectual Immigrants after Occupation 2003*. Paper presented at the The First International Psychiatry Conference at AlKhobar (Kingdom of Saudi Arabia) organised by Al-Dammam University and The Saudi Psychological Assocaiation.

Al-Kubaisy, N., & Alasdi, A. M. A. (2004). *Post Traumatic Stress Disorders among the Students of the Faculty of Education for Women*. Paper presented at the 13th secientific Conference of Psychological Research Centre, Baghdad.

Al-Kubaisy, N., Hassan, B. M., & Al-Kubaisy, T. (2009). Post Traumatic Stress Disorder (Ptsd) among Baghdad University Population 2007-2008. *Journal of Psychological Sciences, 14*, 20-42.

Al-Kubaisy, T. F., & Al-Kubaisy, N. (2002). *Psychological Traumatic Stress Disorders among Iraqi Hiv+Ve Patients*. Paper presented at the The 37th Iraqi Medical Conference, Baghdad.

Al-Kubaisy, T. F., Alkrkhi, K., Lafta, M., & Al-Kubaisy, N. (1995). *Psychological Stress and Mental Disorders Associated with Them in Iraq, a Preliminary Study*. Paper presented at the National conference on the impact of the embargo on the psychological and behavioral aspects of Iraqi society, Psychological Resaerch Centre, Baghdad.

Al-Mashat, K., Amundson, N., Buchanan, M., & Westwood, M. (2006). Iraqi Children's War Experiences: The Psychological Impact of "Operation Iraqi Freedom". *International Journal for the Advancement of Counselling, 28*(2), 195-211.

Al-Samurai, M. A. (1994). Mental Disorders among Iraqi Prisoners of War Returning from Captivity in the First Week of Their Return. *Iraqi Military Medical Journal, 6*(1), 39-48.

Al-Sheakh, R. N. (2002). *Associated Symptoms with Post Traumatic Stress Disorder and Related Variables.* Unpuplished Master Thesis, Al-Mustansiryha University.

Al Obaidi, A. K. S., & Atallah, S. F. (2009). Iraqi Refugees in Egypt: An Exploration of Their Mental Health and Psychosocial Status. *Intervention, 7*(2), 145-151 110.1097/WTF.1090b1013e32832ff32500.

Alatrany, S. (1995). *Post Traumatic Stress Disorder among Secondery School Students from Families of the Victims and Families of Ameriya Shalter Surrounding.* M A Master Thesis, Mustansiriya University, Baghdad.

Albee, G. W. (1982). Preventing Psychopathology and Promoting Human Potential. *American Psychologist, 37*(9), 1043-1050. doi: 10.1037/0003-066x.37.9.1043

Aldwin, C. M., & Revenson, T. A. (1987). Does Coping Help? A Reexamination of the Relation between Coping and Mental Health. . *Journal of Personality and Social Psychology, 53*(2), 337-348.

Alezerjawi, R. (2005). *Developing Post Traumatic Stress Disorder Adolescent.* Unpuplished Master thesis, University of Baghdad.

Alhasnawi, S., Sadik, S., Rasheed, M., Baban, A., Al-Alak, M. M., Othman, A. Y., et al. (2009). The Prevalence and Correlates of Dsm-Iv Disorders in the Iraq Mental Health Survey (Imhs). *World Psychiatry, 8*(2).

Ali, B., Saud, A. M., Mohammad, S., Lobo, M., Midhet, F., Ali, S., et al. (1993). Psychiatric Morbidity: Prevalence, Associated Factors and Significance. *The Journal of the Pakistan Medical Association, 43*(4), 69-70.

Alkrkhi, K. (1994). *Ptsd Symptoms in Outpatients in Baghdad.* Doctorate thesis

Iraqi Board of Medical Specialties, Scientific Council of Psychiatry.

Almaini, M. D. K. (2004). *The Relationship between Ptsd and the Achievement in the Sixth Year of Primary School Children*. Paper presented at the 13th secientific Conference of Psychological Research Centre, Baghdad.

American Psychiatric Association. (1980). *Diagnostic and Statistical Manual of Mental Disorders* (3rd ed.). Washington, DC: American Psychiatric Association.

American Psychiatric Association. (1994). *Diagnostic and Statistical Manual of Mental Disorders, Dsm-Iv*. Washington, D.C: APA.

Amowitz, L. L., Kim, G., Reis, C., Asher, J. L., & Iacopino, V. (2004). Human Rights Abuses and Concerns About Women's Health and Human Rights in Southern Iraq. *JAMA, 291*(12), 1471-1479. doi: 10.1001/jama.291.12.1471

Anastasi, A., & Urbina, S. (1997). *Psychological Testing* (7 ed.). Upper Saddle River, N.J. : Prentice Hall.

Andrews, B., Brewin, C., & Rose, S. (2003). Gender, Social Support, and Ptsd in Victims of Violent Crime. *J Trauma Stress, 16*(4), 421-427.

APA, A. P. A. (1987). *Diagnostic and Statistical Manual of Mental Disorders, 3rd Ed, Revised (Dsm-Iii-R)*. Washington, DC: APA.

Arata, C. M., Picou, J. S., Johnson, G. D., & McNally, T. S. (2000). Coping with Technological Disaster: An Application of the Conservation of Resources Model to the Exxon Valdez Oil Spill. [Article]. *Journal of Traumatic Stress, 13*(1), 23-39. doi: 10.1023/a:1007764729337

Arata, C. M. e. a. (2000). Coping with Technological Disaster: An Application of the Conservation of Resources Model to the Exxon Valdez Oil Spill. *Journal of Traumatic Stress, 13*(1), 17.

Araya, M., Chotai, J., Komproe, I., & Jong, J. (2007). Effect of Trauma on Quality of Life as Mediated by Mental Distress and Moderated by Coping and Social Support among Postconflict Displaced Ethiopians. *Quality of Life Research, 16*, 915-927.

Baker, R. (2010). *Understanding Trauma: How to Overcome Post-Traumatic Stress*. Oxford: Lion Hudson plc.

Bandura, A. (1986). *Social Foundations of Thought and Action: A Social Cognitive Theory*. Englewood Cliffs, NJ: Prentice Hall.

Bandura, A. (1991). Social Cognitive Theory of Self-Regulation. *Organizational Behavior and Human Decision Processes, 50*, 248-287.

Barrera, M., Sandler, I. N., & Ramsay, T. B. (1981). Preliminary Development of a Scale of Social Support: Studies on College Students. *American Journal of Community Psychology, 9*(4), 435-447. doi: 10.1007/bf00918174

Beaton, R. e. a. (1999). Coping Responses and Posttraumatic Stress Symptomatology in Urban Fire Service Personnel. *Journal of Traumatic Stress, 12*(2), 16.

Beck, J. G., Coffey, S. F., Palyo, S. A., Gudmundsdottir, B., Miller, L. M., & Colder, C. R. (2004). Psychometric Properties of the Posttraumatic Cognitions Inventory (Ptci): A Replication with Motor Vehicle Accident Survivors. *Psychological Assessment, 16*(3), 289-298. doi: 10.1037/1040-3590.16.3.289

Benight, C. C., and Harper, M. L. . (2002). Coping Self-Efficacy Perceptions as a Mediator between Acute Stress Response and Long-Term Distress Following Natural Disasters. *Journal of Traumatic Stress, 15*(3), 10.

Benight, C. C., & Bandura, A. (2004). Social Cognitive Theory of Posttraumatic Recovery: The Role of Perceived Self-Efficacy. *Behaviour Research and Therapy, 42*(10), 1129-1148.

Benight, C. C., Cieslak, R., Molton, I. R., & Johnson, L. E. (2008). Self-Evaluative Appraisals of Coping Capability and Posttraumatic Distress Following Motor Vehicle Accidents. . *Journal of Consulting and Clinical Psychology, 76*(4), 677-685.

Benight, C. C., & Harper, M. L. (2002). Coping Self-Efficacy Perceptions as a Mediator between Acute Stress Response and Long-Term Distress Following Natural Disasters. [Article]. *Journal of Traumatic Stress, 15*(3), 177-186. doi: 10.1023/a:1015295025950

Bennett, S. A., Beck, J. G., & Clapp, J. D. (2009). Understanding the Relationship between Posttraumatic Stress Disorder and Trauma Cognitions: The Impact of Thought Control Strategies. *Behaviour Research and Therapy, 47*(12), 1018-1023.

Bergsma, A. (2008). Do Self-Help Books Help? *Journal of Happiness Studies, 9*(3), 341-341-360. doi: 10.1007/s10902-006-9041-2

Billette, V., Guay, S., & Marchand, A. (2008). Posttraumatic Stress Disorder and Social Support in Female Victims of Sexual Assault: The Impact of Spousal Involvement on the Efficacy of Cognitive-Behavioral Therapy. *Behav Modif, 32*(6), 876-896.

Billings, A. G., & Moos, R. H. (1981). The Role of Coping Responses and Social Resources in Attenuating the Stress of Life Events. *Journal of Behavioral Medicine, 4*(2), 139-157. doi: 10.1007/bf00844267

Bisson, J., McFarlane, A. C., & Rose, S. (2000). Psychological Debriefing. In E. Foa, T. M. Keane & M. J. Friedman (Eds.), *Effective Treatments for Ptsd, Practice Guidelines from the International Societry for Traumatic Stress Studies* (pp. 39-59). New York: The Guilford Press.

Bjelland, I., Dahl, A. A., Haug, T. T., & Neckelmann, D. (2002). The Validity of the Hospital Anxiety and Depression Scale: An Updated Literature Review. *Journal of Psychosomatic Research, 52*(2), 69-77.

Blaxter, L., Hughes, C., & Tight, M. (2010). *How to Research* (4th ed.). Maidenhead: Open University Press.

Bleich, A., Gelkopf, M., & Solomon, Z. (2003). Exposure to Terrorism, Stress-Related Mental Health Symptoms, and Coping Behaviors among a Nationally Representative Sample in Israel. *JAMA, 290*(5), 612-620. doi: 10.1001/jama.290.5.612

Bordens, K. S., & Abbott, B. B. (2010). *Research Design and Methods : A Process Approach* (8th ed., International ed.). New York McGraw-Hill Higher Education.

Bracke, P. (2000). The Three-Year Persistence of Depressive Symptoms in Men and Women. *Social Science & Medicine, 51*(1), 51-64.

Breslau, N., Chilcoat, H. D., Kessler, R. C., & Davis, G. C. (1999). Previous Exposure to Trauma and Ptsd Effects of Subsequent Trauma: Results from the Detroit Area Survey of Trauma. *Am J Psychiatry, 156*(6), 902-907.

Breslau, N., Davis, G. C., & Andreski, P. (1995). Risk Factors for Ptsd-Related Traumatic Events: A Prospective Analysis. *Am J Psychiatry, 152*(4), 529-535.

Breslau, N., Kessler, R., & Peterson, E. L. (1998). Post-Traumatic Stress Disorder Assessment with a Structured Interview: Reliability and Concordance with a Standardized Clinical Interview. *International Journal of Methods in Psychiatric Research, 7*(3), 121-127.

Breslau, N., Kessler, R. C., Chilcoat, H. D., Schultz, L. R., Davis, G. C., & Andreski, P. (1998). Trauma and Posttraumatic Stress Disorder in the Community: The 1996 Detroit Area Survey of Trauma. *Arch Gen Psychiatry, 55*(7), 626-632. doi: 10.1001/archpsyc.55.7.626

Breslau, N., Peterson, E. L., Kessler, R. C., & Schultz, L. R. (1999). Short Screening Scale for Dsm-Iv Posttraumatic Stress Disorder. *Am J Psychiatry, 156*(6), 908-911.

Breslau, N., Peterson, E. L., & Schultz, L. R. (2008). A Second Look at Prior Trauma and the Posttraumatic Stress Disorder Effects of Subsequent Trauma: A Prospective Epidemiological Study. *Arch Gen Psychiatry, 65*(4), 431-437. doi: 10.1001/archpsyc.65.4.431

Brewin, C. R., Andrews, B., & Valentine, J. D. (2000). Meta-Analysis of Risk Factors for Posttraumatic Stress Disorder in Trauma-Exposed Adults. *Journal of Consulting and Clinical Psychology, 68*(5), 748-766.

Brewin, C. R., Dalgleish, T., & Joseph, S. (1996). A Dual Representation Theory of Posttraumatic Stress Disorder. *Psychological Review, 103*(4), 670-686. doi: 10.1037/0033-295x.103.4.670

Brewin, C. R., & Holmes, E. A. (2003). Psychological Theories of Posttraumatic Stress Disorder. *Clinical Psychology Review, 23*(3), 339-376.

Briere, J., & Spinazzola, J. (2005). Phenomenology and Psychological Assessment of Complex Posttraumatic States. *Journal of Traumatic Stress, 18*(5), 401-412. doi: 10.1002/jts.20048

Brodzinsky, D. M., Elias, M. J., Steiger, C., Simon, J., Gill, M., & Hitt, J. C. (1992). Coping Scale for Children and Youth: Scale Development and Validation. *Journal of Applied Developmental Psychology, 13*(2), 195-214.

Brugha, T. (1995). Social Support and Psychiatric Disorder: Overview of Evidence. In T. Brugha (Ed.), *Social Support and Psychiatric Disoder, Research Findings and Guidelines for Clinical Practice* (pp. 1-38). Cambridge: Uiversity of Cambridge.

Bryant, R. A. (2003). Early Predictors of Posttraumatic Stress Disorder. *Biological Psychiatry, 53*(9), 789-795.

Bryant, R. A., & Guthrie, R. M. (2005). Maladaptive Appraisals as a Risk Factor for Posttraumatic Stress. *Psychological Science, 16*(10), 749-752.

Bryant, R. A., Mastrodomenico, J. A., Felmingham, K. L., Hopwood, S., Kenny, L. M., Kandris, E., et al. (2008). Treatment of Acute Stress Disorder: A Randomized Controlled Trial. *Archives of General Psychiatry, 65*(6), 659-667.

Burge, S. K. (1984). Post-Traumatic Stress Disorder in Victims of Sexual Assault: Predicting Severity of Symptoms Considering Rape Situation Variables and Social Support [Dissertation] (210 Pp.). *Purdue University*.

Burnham, G., Lafta, R., & Doocy, S. (2009). Doctors Leaving 12 Tertiary Hospitals in Iraq, 2004-2007. *Social Science Medicine, 69*(2), 172-177.

Burnham, G., Malik, S., Dhari Al-Shibli, A. S., Mahjoub, A. R., Baqer, A. a. Q., Baqer, Z. Q., et al. (2011). Understanding the Impact of Conflict on Health Services in Iraq: Information from 401 Iraqi Refugee Doctors in Jordan. *The International Journal of Health Planning and Management*, n/a-n/a. doi: 10.1002/hpm.1091

Burns, D. D., & Nolen-Hoeksema, S. (1991). Coping Styles, Homework Compliance, and the Effectiveness of Cognitive-Behavioral Therapy. *Journal of Consulting and Clinical Psychology, 59*(2), 305-311. doi: 10.1037/0022-006x.59.2.305

Caci, H., Baylé, F. J., Mattei, V., Dossios, C., Robert, P., & Boyer, P. (2003). How Does the Hospital and Anxiety and Depression Scale Measure Anxiety and Depression in Healthy Subjects? *Psychiatry Research, 118*(1), 89-99.

Cahill, S. P., & Foa, E. B. (2007). Psychological Theories of Ptsd. In M. J. Friedman, T. M. Keane & P. A. Resick (Eds.), *Handbook of Ptsd : Science and Practice* (pp. 55-78). New York, NY, USA: Guilford Press.

Cambridge University. (Ed.) (2011) Cambridge dictioneries onlines. Cambridge: Cambridge University Press.

Campbell, L. F., & Smith, T. P. (2003). Integrating Self-Help Books into Psychotherapy. *Journal of Clinical Psychology, 59*(2), 177-186.

Canty-Mitchell, J., & Zimet, G. D. (2000). Psychometric Properties of the Multidimensional Scale of Perceived Social Support in Urban Adolescents. *American Journal of Community Psychology, 28*(3), 391-400. doi: 10.1023/a:1005109522457

Carek, V., Norman, P., & Barton, J. (2010). Cognitive Appraisals and Posttraumatic Stress Disorder Symptoms in Informal Caregivers of Stroke Survivors. *Rehabilitation Psychology, 55*(1), 91-96. doi: 10.1037/a0018417

Carlier, I. V. E., Lamberts, R. D., Van Uchelen, A. J., & Gersons, B. P. (1998). Clinical Utility of a Brief Diagnostic Test for Posttraumatic Stress Disorder. *Psychosomatic Medicine, 60*, 42-47.

Carlson, E., Palmieri, P., Smith, S., Kimerling, R., Ruzek, J., & Burling, T. (2011). A Brief Self-Report Measure of Traumatic Events: The Trauma History Screen. *Psychological Assessment, 23*(2), 463-477.

Carlson, E. B. (2001). Psychometric Study of a Brief Screen for Ptsd: Assessing the Impact of Multiple Traumatic Events. *Assessment, 8*, 431-441.

Carlson, E. B., & Rosser-Hogan, R. (1991). Trauma Experiences, Posttraumatic Stress, Dissociation, and Depression in Cambodian Refugees. *Am J Psychiatry, 148*(11), 1548-1551.

Carlton-Ford, S., Ender, M. G., & Tabatabai, A. (2008). Iraqi Adolescents: Self-Regard, Self-Derogation, and Perceived Threat in War. *Journal of Adolescence, 31*(1), 53-75.

Carver, C. (1997). You Want to Measure Coping but Your Protocol' Too Long: Consider the Brief Cope. *International Journal of Behavioral Medicine, 4*(1), 92-100. doi: 10.1207/s15327558ijbm0401_6

Carver, C. S. (2006). Stress, Coping, and Health In H. S. Friedman & R. Cohen Silver (Eds.), *Foundations of Health Psychology* (pp. 117-144). Cary, NC, USA: Oxford University Press.

Carver, C. S., Pozo, C., Harris, S. D., Noriega, V., Scheier, M. F., Robinson, D. S., et al. (1993). How Coping Mediates the Effect of Optimism on Distress: A Study of Women with Early Stage Breast Cancer. *Journal of Personality and Social Psychology, 65*(2), 375-390. doi: 10.1037/0022-3514.65.2.375

Carver, C. S., Scheier, M. F., & Weintrau, J. K. (1989). Assessing Coping Strategies: A Theoretically Based Approach. *Journal of Personality and Social Psychology, 56*(2), 267-283.

Caspi, Y., Carlson, E. B., & Klein, E. (2007). Validation of a Screening Instrument for Posttraumatic Stress Disorder in a Community Sample of Bedouin Men Serving in the Israeli Defense Forces. *Journal of Traumatic Stress, 20*(4), 517-527.

Central Organization for Statistics and Information Technology, C. (2011). Number of Students Admitted in Universities, Technical Education Commission and Private Colleges by University, Nationality and Gender for the Academic Year 2010/2011., from http://www.cosit.gov.iq/english/AAS2012/section_9/25A.htm

Central Organization for Statistics and Information Technology in Iraq. (2009). Estimated Population by Age Groups, Urban/Rural and Gender for the Year 2009 Retrieved 1/4/2010, from http://www.cosit.gov.iq/AAS2010/section_2/2-6A.htm

Cheung, P. (1994). Posttraumatic Stress Disorder among Cambodian Refugees in New Zealand. *International Journal of Social Psychiatry, 40*(1), 17-26. doi: 10.1177/002076409404000102

Christensen, A., & Jacobson, N. S. (Writers). (1994). Who (or What) Can Do Psychotherapy: The Status and Challenge of Nonprofessional Therapies [Article], *Psychological Science*: Blackwell Publishing Limited.

Chung, M. C., Werrett, J., Easthope, Y., & Farmer, S. (2004). Coping with Post-Traumatic Stress: Young, Middle-Aged and Elderly Comparisons. *International Journal of Geriatric Psychiatry, 19*(4), 333-343.

Clapp, J. D., & Gayle Beck, J. (2008). Understanding the Relationship between Ptsd and Social Support: The Role of Negative Network Orientation. *Behav Res Ther*.

Cobb, S. (1976). Presidential Address-1976. Social Support as a Moderator of Life Stress. *Psychosom Med, 38*(5), 300-314.

Cori, J. L., & Scaer, R. (2007). *Healing from Trauma: A Survivor's Guide to Understanding Your Symptoms and Reclaiming Your Life*. Cambridge: Marlowe & Company.

Court, C. (1995). Iraq Sanctions Lead to Half a Million Child Deaths. *BMJ, 311:1523* Retrieved 30/7/2010, from http://www.bmj.com/cgi/content/full/311/7019/1523

Coyne, J. C., & Racioppo, M. W. (2000). Never the Twain Shall Meet? Closing the Gap between Coping Research and Clinical Intervention Research. *American Psychologist;American Psychologist, 55*(6), 655-664. doi: 10.1037/0003-066x.55.6.655

Crawford, J. R., Henry, J. D., Crombie, C., & Taylor, E. P. (2001). Brief Report Normative Data for the Hads from a Large Non-Clinical Sample. *British Journal of Clinical Psychology, 40*, 429-434.

Cross, M. R., & McCanne, T. R. (2001). Validation of a Self-Report Measure of Posttraumatic Stress Disorder in a Sample of College-Age Women. *Journal of Traumatic Stress, 14*(1), 135-147. doi: 10.1023/a:1007843800664

Daie-Gabai, A., Aderka, I. M., Allon-Schindel, I., Foa, E. B., & Gilboa-Schechtman, E. (2011). Posttraumatic Cognitions Inventory (Ptci): Psychometric Properties and Gender Differences in an Israeli Sample. *Journal of Anxiety Disorders, 25*(2), 266-271.

Dalgleish, T. (2004). Cognitive Approaches to Posttraumatic Stress Disorder: The Evolution of Multirepresentational Theorizing. *Psychological Bulletin, 130*(2), 228-260. doi: 10.1037/0033-2909.130.2.228

DAVIDSON, J. R. T., BOOK, S. W., COLKET, J. T., TUPLER, L. A., ROTH, S., DAVID, D., et al. (1997). Assessment of a New Self-Rating Scale for Post-Traumatic Stress Disorder. *Psychological Medicine, 27*(01), 153-160. doi: doi:null

Davidson, J. R. T., Stein, D. J., Shalev, A. Y., & Yehuda, R. (2004). Posttraumatic Stress Disorder: Acquisition, Recognition, Course, and Treatment. *J Neuropsychiatry Clin Neurosci, 16*(2), 135-147. doi: 10.1176/appi.neuropsych.16.2.135

de Jong, J. T. V. M., Komproe, I. H., Van Ommeren, M., El Masri, M., Araya, M., Khaled, N., et al. (2001). Lifetime Events and Posttraumatic Stress Disorder in 4 Postconflict Settings. *JAMA, 286*(5), 555-562. doi: 10.1001/jama.286.5.555

Declercq, F., & Palmans, V. (2006). Two Subjective Factors as Moderators between Critical Incidents and the Occurrence of Post Traumatic Stress Disorders: Adult Attachment and Perception of Social Support. *Psychol Psychother, 79*(Pt 3), 323-337.

Den Boer, P. C. A. M., Wiersma, D., & Van Den Bosch, R. J. (2004). Why Is Self-Help Neglected in the Treatment of Emotional Disorders? A Meta-Analysis. *Psychological Medicine, 34*(06), 959-971. doi: doi:10.1017/S003329170300179X

Dirkzwager, A. J. E., Bramsen, I., & Van der Ploeg, H. M. (2003). Social Support, Coping, Life Events, and Posttraumatic Stress Symptoms among Former Peacekeepers: A Prospective Study. *Personality and Individual Differences, vol, 34*(8), 1545-1559.

Dorsett, E. M. (1995). *Primary and Secondary Trauma in a Non-Clinical Population.* Ph.D. dissertation dissertation, University of Georgia. Retrieved from http://wwwlib.umi.com/dissertations/fullcit/9604035

Dunmore, E., Clark, D. M., & Ehlers, A. (1999). Cognitive Factors Involved in the Onset and Maintenance of Posttraumatic Stress Disorder (Ptsd) after Physical or Sexual Assault. *Behaviour Research and Therapy, 37*(9), 809-829.

Dunmore, E., Clark, D. M., & Ehlers, A. (2001). A Prospective Investigation of the Role of Cognitive Factors in Persistent Posttraumatic Stress Disorder (Ptsd) after Physical or Sexual Assault. *Behaviour Research and Therapy, 39*(9), 1063-1084.

Durlak, J. A. (1979). Comparative Effectiveness of Paraprofessional and Professional Helpers. *Psychological Bulletin, 86*(1), 80-92. doi: 10.1037/0033-2909.86.1.80

Dyregrov, A., Gjestad, R., & Raundalen, M. (2002). Children Exposed to Warfare: A Longitudinal Study. *Journal of Traumatic Stress, 15*(1), 59-68.

Eaton, R. J., & Bradley, G. (2008). The Role of Gender and Negative Affectivity in Stressor Appraisal and Coping Selection. *International Journal of Stress Management, 15*(1), 94-115. doi: 10.1037/1072-5245.15.1.94

Ebert, A., & Dyck, M. J. (2004). The Experience of Mental Death: The Core Feature of Complex Posttraumatic Stress Disorder. *Clinical Psychology Review, 24*(6), 617-635.

Ehlers, A., & Clark, D. M. (2000). A Cognitive Model of Posttraumatic Stress Disorder. *Behaviour Research and Therapy, 38*(4), 319-345.

Ehlers, A., Clark, D. M., Hackmann, A., McManus, F., Fennell, M., Herbert, C., et al. (2003). A Randomized Controlled Trial of Cognitive Therapy, a Self-Help Booklet, and Repeated Assessments as Early Interventions for Posttraumatic Stress Disorder. *Arch Gen Psychiatry, 60*(10), 1024-1032. doi: 10.1001/archpsyc.60.10.1024

El-Rufaie, O., Albar, A., & Al-Dabal, B. (1988). Identifying Anxiety and Depressive Disorders among Primary Care Patients: A Pilot Study. *Acta Psychiatr Scand, 77*, 280-282.

el-Rufaie, O. E., & Absood, G. (1987). Validity Study of the Hospital Anxiety and Depression Scale among a Group of Saudi Patients. *The British Journal of Psychiatry, 151*(5), 687-688. doi: 10.1192/bjp.151.5.687

El-Rufaie, O. E. F., & Absood, G. H. (1995). Retesting the Validity of the Arabic Vesion of the Hospital Anxiety and Depression (Had) Scale in Primary Health Care. *Soc Psychiatry Psychiatr Epidemiol, 30*, 26-31.

Elament, e. M. H. R. (2008). Post Traumatic Stress, a Self-Help Guide Retrieved 12/1/2009, from http://www.moodjuice.scot.nhs.uk/posttrauma.asp

Elliott, D. M., & Briere, J. (1992). Sexual Abuse Trauma among Professional Women: Validating the Trauma Symptom Checklist-40 (Tsc-40). *Child Abuse & Neglect, 16*(3), 391-398.

Elsesser, K., Freyth, C., Lohrmann, T., & Sartory, G. (2009). Dysfunctional Cognitive Appraisal and Psychophysiological Reactivity in Acute Stress Disorder. *Journal of Anxiety Disorders, 23*(7), 979-985.

Elsesser, K., & Sartory, G. (2007). Memory Performance and Dysfunctional Cognitions in Recent Trauma Victims and Patients with Post-Traumatic Stress Disorder. *Clinical Psychology & Psychotherapy, 14*(6), 464-474. doi: 10.1002/cpp.545

Eriksson, N., & Lundin, T. (1996). Early Traumatic Stress Reactions among Swedish Survivors of the M/S Estonia Disaster. *Br J Psychiatry, 169*, 713-716.

Everitt, B., & Wessely, S. (2008). *Clinical Trials in Psychiatry*. Chichester, GBR: Wiley.

Fahmi, M. (1996). *The Psychological Adjustment of Returns of Iraqi Prisoners.* Master thesis, Mustansiriya University.

Falsetti, S. A., Resnick, H. S., Resick, P. A., & Kilpatrick, D. (1993). The Modified Ptsd Symptom Scale: A Brief Self-Report Measure of Posttraumatic Stress Disorder. *The Behavioral Therapist, 16*, 161-162.

Fawcett, F. S. (2007, 2/4/2007). Rape, the Facts Retrieved 1/6/2010, from www.fawcettsociety.org.uk/documents/Rape%20-%20The%20Facts.doc

Febbraro, G. R., & Clum, G. A. (2008). Self-Regulation Theory and Self-Help Therapies. In P. L. Watkins & G. A. Clum. (Eds.), *Handbook of Self-Help Therapies* (pp. 59-76). New York: Taylor & Francis Group, LLC.

Feng, S., Tan, H., Benjamin, A., Wen, S., Liu, A., Zhou, J., et al. (2007). Social Support and Posttraumatic Stress Disorder among Flood Victims in Hunan, China. *Ann Epidemiol, 17*(10), 827-833.

Fernando, C. J., Cláudia, D., & Manuel, F. A. (2010). Coping Strategies, Multidimensional Competitive Anxiety and Cognitive Threat Appraisal: Differences across Sex, Age and Type of Sport. *Serbian Journal of Sports Sciences, 1*, 23-31.

Figley, C. R. (1978). Symptoms of Delayed Combat Stress among a Sample of Vietnam Veterans. Military Medicine, 143,107-110. In E. Jones & S. Wessely (Eds.), *E. Jones & S. Wessely (2007). A Paradigm Shift in the Conceptualization of Psychological Trauma in the 20th Century. J Anxiety Disord, 21(2), 164 - 175.*

Fillion, L., Kovacs, A., Gagnon, P., & Endler, N. (2002). Validation of the Shortened Cope for Use with Breast Cancer Patients Undergoing Radiation Therapy. *Current Psychology, 21*(1), 17-34. doi: 10.1007/bf02903157

Finset, A., Steine, S., Haugli, L., Steen, E., & Laerum, E. (2002). The Brief Approach/Avoidance Coping Questionnaire: Development and Validation. *Psychology, Health & Medicine, 7*(1), 75 - 85.

Flannery, R. B. (1990). Social Support and Psychological Trauma: A Methodological Review. *Journal of Traumatic Stress, vol, 3*(4), 593-611.

Foa, E. B., & Cahill, S. P. (2001). Psychological Therapies: Emotional Processing. In J. S. Â Â Neil & B. B. Paul (Eds.), *International Encyclopedia of the Social &Amp; Behavioral Sciences* (pp. 12363-12369). Oxford: Pergamon.

Foa, E. B., Cashman, L., Jaycox, L., & Perry, K. (1997). The Validation of a Self-Report Measure of Posttraumatic Stress Disorder: The Posttraumatic Diagnostic Scale. *Psychological Assessment, 9*(4), 445-451. doi: 10.1037/1040-3590.9.4.445

Foa, E. B., Ehlers, A., Clark, D. M., Tolin, D. F., & Orsillo, S. M. (1999). The Posttraumatic Cognitions Inventory (Ptci): Development and Validation. *Psychological Assessment, 11*(3), 303-314. doi: 10.1037/1040-3590.11.3.303

Foa, E. B., Keane, T., & Friedman, M. J. (2000). *Effective Treatments for Ptsd, Practice Guidelines from the International Society for Traumatic Stress Studies*. New York: The Guilford Press.

Foa, E. B., Steketee, G., & Rothbaum, B. O. (1989). Behavioral/Cognitive Conceptualizations of Post-Traumatic Stress Disorder. *Behavior Therapy, 20*(2), 155-176.

Folkman, S. (1984). Personal Control and Stress and Coping Processes: A Theoretical Analysis. *Journal of Personality and Social Psychology, 46*(4), 839-852. doi: 10.1037/0022-3514.46.4.839

Folkman, S., & lazarus, R. S. (1985). If It Chnages It Must Be a Process: Study of Emotion and Coping During Three Stages of a College Examination. *Journal of Personality and Social Psychology, 48*, 150-170.

Folkman, S., Lazarus, R. S., Gruen, R. J., & DeLongis, A. (1986). Appraisal, Coping, Health Status, and Psychological Symptoms. . *Journal of Personality and Social Psychology, 50*(3), 571-579.

Follette, V. M., Polusny, M. A., Bechtle, A. E., & Naugle, A. E. (1996). Cumulative Trauma: The Impact of Child Sexual Abuse, Adult Sexual Assault, and Spouse Abuse. *Journal of Traumatic Stress, 9*(1), 25-35.

Friedman, S., Samuelian, J.-C., Lancrenon, S., Even, C., & Chiarelli, P. (2001). Three-Dimensional Structure of the Hospital Anxiety and Depression Scale in a Large French Primary Care Population Suffering from Major Depression. *Psychiatry Research, 104*(3), 247-257.

Fulayyih, A. M. (2004). *The Relationship between Ptsd and the Aggressive Behavior among Primary School Students.* Paper presented at the 13th secientific Conference of Psychological Research Centre, Baghdad.

Gaines, N. A. (1997). *Is There Evidence in a College Student Sample to Support the Concept of Complex Ptsd?: Comparing Sex, Age of Onset, and Stressor.* thesis. Retrieved from http://wwwlib.umi.com/dissertations/fullcit/1391150

Galea, S., Nandi, A., & Vlahov, D. (2005). The Epidemiology of Post-Traumatic Stress Disorder after Disasters. *Epidemiol Rev, 27*(1), 78-91. doi: 10.1093/epirev/mxi003

Gater, R., Tansella, M., Korten, A., Tiemens, B. G., Mavreas, V. G., & Olatawura, M. O. (1998). Sex Differences in the Prevalence and Detection of Depressive and Anxiety Disorders in General Health Care Settings: Report from the World Health Organization Collaborative Study on Psychological Problems in General Health Care. *Arch Gen Psychiatry, 55*(5), 405-413. doi: 10.1001/archpsyc.55.5.405

Ghalib, T. (2004). *Ptsd in among the Children Exposed to War Trauma.* Paper presented at the 13th secientific Conference of Psychological Research Centre, Baghdad.

Glasgow, R. E., & Rosen, G. M. (1978). Behavioral Bibliotherapy: A Review of Self-Help Behavior Therapy Manuals. *Psychological Bulletin, 85,* 1-23.

Glover, H., Pelesky, C. A., Bruno, R., & Sette, R. (1990). Post-Traumatic Stress Disorder Conflicts in Vietnam Combat Veterans: A Confirmatory Factor Analytic Study. *Journal of Traumatic Stress, 3*(4), 573-591.

González-Morales, M. G., Peiró, J. M., Rodríguez, I., & Greenglass, E. R. (2006). Coping and Distress in Organizations: The Role of Gender in Work Stress. *International Journal of Stress Management, 13*(2), 228-248. doi: 10.1037/1072-5245.13.2.22

Goode, E. (2008, 20/05/2008). War Takes Toll on Baghdad Psychiatric Hospital, Report, *The New York Times*. Retrieved from http://www.nytimes.com/2008/05/20/world/middleeast/20psychiatry.html?pagewanted=all

Gorst-Unsworth, C., & Goldenberg, E. (1998). Psychological Sequelae of Torture and Organised Violence Suffered by Refugees from Iraq.

Trauma-Related Factors Compared with Social Factors in Exile. *The British Journal of Psychiatry, 172*(1), 90-94. doi: 10.1192/bjp.172.1.90

Gould, R. A., & Clum, G. A. (1993). A Meta-Analysis of Self-Help Treatment Approaches. *Clinical Psychology Review, 13*(2), 169-186.

Graham-Howard, M. L. (1993). *The Relationship between Exposure to Multiple Traumas and the Development of Ptsd Symptoms in Boys* Ph.D. dissertation dissertation. Retrieved from http://wwwlib.umi.com/dissertations/fullcit/9323803

Green, B., Lindy, J., Grace, M., & Leonard, A. (1992). Chronic Posttraumatic Stress Disorder and Diagnostic Comorbidity in a Disaster Sample. *J Nerv Ment Dis. , 180*(12), 760-766.

Guay, S., Billette, V., & Marchand, A. (2006). Exploring the Links between Posttraumatic Stress Disorder and Social Support: Processes and Potential Research Avenues. *J Trauma Stress, 19*(3), 327-338.

Haden, S. C., Scarpa, A., Jones, R. T., & Ollendick, T. H. (2007). Posttraumatic Stress Disorder Symptoms and Injury: The Moderating Role of Perceived Social Support and Coping for Young Adults. *Personality and Individual Differences, vol, 42*(7), 1187-1198.

Haisch, D. C. a. M., L. S. (2004). Mmpi-2 Assessed Post -Traumatic Stress Disorder Related to Job Stress, Coping, and Personality in Police Agencies. *Stress and Health, 20*, 7.

Halliday, G. (1991). Psychological Self-Help Books--How Dangerous Are They? *Psychotherapy: Theory, Research, Practice, Training, 28*(4), 678-680. doi: 10.1037/0033-3204.28.4.678

Hamer, D., Sanjeev, D., Butterworth, E., & Barczak, P. (1991). Using the Hospital Anxiety and Depression Scale to Screen for Psychiatric Disorders in People Presenting with Deliberate Self-Harm. *The British Journal of Psychiatry, 158*(6), 782-784. doi: 10.1192/bjp.158.6.782

Hammarberg, M. (1992). Penn Inventory for Posttraumatic Stress Disorder: Psychometric Properties. *Psychological Assessment, 4*(1), 67-76. doi: 10.1037/1040-3590.4.1.67

Harris, G. G. (2005). *Potential Role of Social Support Systems and Post Traumatic Stress Disorder* Master Master Thesis, Marshall University

Hassan, B. M. (2005). Post Traumatic Stress Disorder and Its Correlation with Self-Control among University of Baghdad's Students. *Journal of Psychological Sciences, 10*, 160-217.

Heider, F. (1958). *The Psychology of Interpersonal Relations*. Hillsdale, N.J.: Lawrence Erlbaum Associates.

Heinrichs, M., Wagner, D., Schoch, W., Soravia, L. M., Hellhammer, D. H., & Ehlert, U. (2005). Predicting Posttraumatic Stress Symptoms from Pretraumatic Risk Factors: A 2-Year Prospective Follow-up Study in

Firefighters. *Am J Psychiatry, 162*(12), 2276-2286. doi: 10.1176/appi.ajp.162.12.2276

Henline, L. M. (2005). Post Traumatic Stress Disorder, the Biological Aspects

Retrieved 10/09/2011, from http://www.users.qwest.net/~abinormal/PTSD.htm

Herbert, C. (2007). *Understanding Your Reactions to Trauma: A Guide for Survivors of Trauma and Their Families* (3rd ed.). Witney: Blue Stallion Publications.

Herbert, C., & Wetmore, A. (1999). *Overcoming Traumatic Stress: Self-Help Guide Using Cognitive Behavioral Techniques* (1st ed.). London: Robinson.

Herman, J. L. (1992). Complex Ptsd: A Syndrome in Survivors of Prolonged and Repeated Trauma. *Journal of Traumatic Stress, 5*(3), 377-391.

Herrero, M. J., Blanch, J., Peri, J. M., De Pablo, J., Pintor, L., & Bulbena, A. (2003). A Validation Study of the Hospital Anxiety and Depression Scale (Hads) in a Spanish Population. *General Hospital Psychiatry, 25*(4), 277-283.

Herrmann, C. (1997). International Experiences with the Hospital Anxiety and Depression Scale-a Review of Validation Data and Clinical Results. *Journal of Psychosomatic Research, 42*(1), 17-41.

Hicks, M. H.-R., Dardagan, H., Bagnall, P. M., Spagat, M., & Sloboda, J. A. (2011). Casualties in Civilians and Coalition Soldiers from Suicide Bombings in Iraq, 2003-10: A Descriptive Study. *The Lancet, 378*(9794), 906-914.

Hirai, M., & Clum, G. A. (2005). An Internet-Based Self-Change Program for Traumatic Event Related Fear, Distress, and Maladaptive Coping. *Journal of Traumatic Stress, 18*(6), 631-636.

Hirai, M., & Clum, G. A. (2006). A Meta-Analytic Study of Self-Help Interventions for Anxiety Problems. *Behavior Therapy, 37*(2), 99-111.

Holahan, C. J., Moos, R., & Schaefer, J. A. (1996). Coping, Stress, Resistance, and Growth: Conceptualizing Adaptive Functioning. In M. Zeidner & N. S. Endler (Eds.), *Handbook of Coping: Theory, Research, Application* (pp. 24-43). New York: John Wiley & Sons.

Holeva, V., Tarrier, N., & Wells, A. (2001). Prevalence and Predictors of Acute Stress Disorder and Ptsd Following Road Traffic Accidents: Thought Control Strategies and Social Support. *Behavior Therapy, vol, 32*(1), 65-83.

Holly, R. W., Robert, A. H., Dawna, S. F.-W., Theresa Ann, S., Alex, E. C., Robert, L. J., et al. (2008). The Effectiveness of Interventions to Reduce Psychological Harm from Traumatic Events among Children

and Adolescents: A Systematic Review. *American journal of preventive medicine, 35*(3), 287-313.

House, J. S., & Kahn, R. L. (1985). Measures and Concepts of Social Support. In S. Cohen & S. L. Syme (Eds.), *Social Support and Health* (pp. 83-108). London: Academic Press inc.

Hunt, N. (2002). Debriefing Children and Young People. In N. Tehrani (Ed.), *Psychological Debriefing, Professional Practice Board Working Party* (pp. 59-63): The British Psychological Society.

Hunt, N. C., & McHale, S. (2010). *Understanding Traumatic Stress.* London: Sheldon Press.

Hyman, S. M., Gold, S. N., & Cott, M. A. (2003). Forms of Social Support That Moderate Ptsd in Childhood Sexual Abuse Survivors. *Journal of Family Violence, vol, 18*(5), 295-300.

IFHSSG. (2008). Violence-Related Mortality in Iraq from 2002 to 2006. *The New England journal of medicine, 358*(5), 484-493.

Jaber, S., Hunt, N., Sabin-Farrell, R., & Alqaysi, A. (2011). *A Self-Help Guide for Traumatised People*. Baghdad: Educational Studies and Psychological Research Centre.

Janoff-Bulman, R. (1992). *Shattered Assumptions : Towards a New Psychology of Trauma*. New York: Free Press.

Jayasinghe, N., Giosan, C., Evans, S., Spielman, L. A., & Difede, J. (2008). Anger and Posttraumatic Stress Disorder in Disaster Relief Workers Exposed to the September 11, 2001 World Trade Center Disaster: One-Year Follow-up Study. *Journal of Nervous and Mental Disease, 196*(11), 844-846.

Jones, J. M. (2007). Exposure to Chronic Community Violence: Resilience in African American Children. *Journal of Black Psychology, 33*(2), 125-149.

Jorgensen, R. S., & Dusek, J. B. (1990). Adolescent Adjustment and Coping Strategies. *Journal of personality, 58*(3), 503-513.

Josefina, J. C. (1987). Epidemiology of Ptsd in a National Cohort of Vietnam Veterans. *Journal of Clinical Psychology, 43*(1), 6-17.

Joseph, A. B. (1995). Post-Traumatic Stress and Associated Disorders among Vietnam Veterans: The Significance of Combat Exposure and Social Support. *Journal of Traumatic Stress, 8*(2), 317-336.

Joseph, S. (1999). Attributional Processes, Coping and Post-Traumatic Stress Disorders. In W. Yule (Ed.), *Post-Traumatic Stress Disorders : Concepts and Therapy*. Chichester: Wiley.

Joseph, S., Dalgleish, T., Williams, R., Yule, W., Thrasher, S., & Hodgkinson, P. (1997). Attitudes Towards Emotional Expression and Post-Traumatic

Stress in Survivors of the Herald of Free Enterprise Disaster. *Br J Clin Psychol, 36*, 133-138.

Joseph, S., & Williams, R. (2005). Understanding Posttraumatic Stress: Theory, Reflections, Context and Future. *Behavioural and Cognitive Psychotherapy, 33*(4), 423-441.

Kanfer, F. H. (1975). Self-Management Methods. In F. H. Kanfer & A. P. Goldstein (Eds.), *Helping People Change: A Textbook of Methods* (pp. 334-389). New York: Pergamon.

Kanninen, K., Punamaki, R. L., & Qouta, S. (2002). The Relation of Appraisal, Coping Efforts, and Acuteness of Trauma to Pts Symptoms among Former Political Prisoners. [Article]. *Journal of Traumatic Stress, 15*(3), 245-253. doi: 10.1023/a:1015211529584

Kapsou, M., Panayiotou, G., Kokkinos, C. M., & Demetriou, A. G. (2010). Dimensionality of Coping: An Empirical Contribution to the Construct Validation of the Brief-Cope with a Greek-Speaking Sample. *J Health Psychol, 15*, 215-229. doi: 10.1177/1359105309346516

Karl, A., Rabe, S., Zöllner, T., Maercker, A., & Stopa, L. (2009). Negative Self-Appraisals in Treatment-Seeking Survivors of Motor Vehicle Accidents. *Journal of Anxiety Disorders, 23*(6), 775-781.

Katz, L. S., Snetter, M. R., Robinson, A. H., Hewitt, P., & Cojucar, G. (2008). Holographic Reprocessing: Empirical Evidence to Reduce Posttraumatic Cognitions in Women Veterans with Ptsd from Sexual Trauma and Abuse. *Psychotherapy: Theory, Research, Practice, Training, 45*(2), 186-198. doi: 10.1037/0033-3204.45.2.186

Kazdin, A. E. (2003). *Research Design in Clinical Psychology* (4th ed.). Boston [Mass.] ; London: Allyn and Bacon.

Keane, T. M., Caddell, J. M., & Taylor, K. L. (1988). Mississippi Scale for Combat-Related Posttraumatic Stress Disorder: Three Studies in Reliability and Validity. *Journal of Consulting and Clinical Psychology, 56*(1), 85-90. doi: 10.1037/0022-006x.56.1.85

Kelly, M. M., Tyrka, A. R., Price, L. H., & Carpenter, L. L. (2008). Sex Differences in the Use of Coping Strategies: Predictors of Anxiety and Depressive Symptoms. [Article]. *Depression and Anxiety, 25*(10), 839-846. doi: 10.1002/da.20341

Kendler, K. S., Myers, J., & Prescott, C. A. (2005). Sex Differences in the Relationship between Social Support and Risk for Major Depression: A Longitudinal Study of Opposite-Sex Twin Pairs. *Am J Psychiatry, 162*(2), 250-256. doi: 10.1176/appi.ajp.162.2.250

Kessler, R. C., McGonagle, K. A., Zhao, S., Nelson, C. B., Hughes, M., Eshleman, S., et al. (1994). Lifetime and 12-Month Prevalence of Dsm-Iii-R Psychiatric Disorders in the United States: Results from the National Comorbidity Survey. *Arch Gen Psychiatry, 51*(1), 8-19. doi: 10.1001/archpsyc.1994.03950010008002

Kessler, R. C., Sonnega, A., Bromet, E., Hughes, M., & Nelson, C. B. (1995). Posttraumatic Stress Disorder in the National Comorbidity Survey. *Arch Gen Psychiatry, 52*(12), 1048-1060.

Khaya, R. A. (2007). *Perceived Stress, Coping Styles and Periodontitis: A Cross Cultural Analysis.* PhD Thesis, The University of Michigan.

Kilbourn, P. A. (1993). *Responses to the Psychological Trauma of Children in War: Appropriateness of Resources from the Social and Religious Agencies.* Ed.D. dissertation. dissertation, Trinity Evangelical Divinity School. Retrieved from http://wwwlib.umi.com/dissertations/fullcit/9334536

Kilpatrick, D. G., Ruggiero, K. J., Acierno, R., Saunders, B. E., Resnick, H. S., & Best, C. L. (2003). Violence and Risk of Ptsd, Major Depression, Substance Abuse/Dependence, and Comorbidity: Results from the National Survey of Adolescents. *Journal of Consulting and Clinical Psychology, 71*(4), 692-700. doi: 10.1037/0022-006x.71.4.692

King, L. A., King, D. W., Leskin, G. A., & Foy, D. W. (1995). The Los Angeles Symptom Checklist: A Self-Report Measure of Posttraumatic Stress Disorder. *Assessment, 2*, 1-17.

Klari'c, M., Franciskovi'c, T., Klari'c, B., Kresi'c, M., Grkovi'c, J., Lisica, I. D., et al. (2008). Social Support and Ptsd Symptoms in War-Traumatized Women in Bosnia and Herzegovina. *Psychiatr Danub, 20*(4), 466-473.

Klarić, M., Francisković, T., Klarić, B., Kresić, M., Grković, J., Lisica, I., et al. (2008). Social Support and Ptsd Symptoms in War-Traumatized Women in Bosnia and Herzegovina. *Psychiatr Danub, 20*(4), 466-473.

Kramer, S. N. (1981). *History Begins at Sumer: Thirty-Nine Firsts in Man's Recorded History*. Philadelphia: University of Pennsylvania Press.

Laban, C., Gernaat, H., Komproe, I., van der Tweel, I., & De Jong, J. (2005). Postmigration Living Problems and Common Psychiatric Disorders in Iraqi Asylum Seekers in the Netherlands. *Journal of Nervous & Mental Disease, 193*(12), 825-832.

Laban, C. J., Gernaat, H. B. P. E., Komproe, I. H., & Jong, J. T. V. M. D. (2007). Prevalence and Predictors of Health Service Use among Iraqi Asylum Seekers in the Netherlands. *Soc Psychiatry Psychiatr Epidemiol, 42*, 837-844. doi: 10.1007/s00127-007-0240-x

Laban, C. J., Gernaat, H. B. P. E., Komproe, I. H., Schreuders, B. A., & De Jong, J. T. V. M. (2004). Impact of a Long Asylum Procedure on the Prevalence of Psychiatric Disorders in Iraqi Asylum Seekers in the Netherlands. *The Journal of Nervous and Mental Disease, 192*(12), 843-851.

Laban, C. J., Komproe, I. H., Gernaat, H. B. P. E., & Jong, J. T. V. M. d. (2008). The Impact of a Long Asylum Procedure on Quality of Life, Disability and Physical Health in Iraqi Asylum Seekers in the

Netherlands. *Social Psychiatry and Psychiatric Epidemiology, 43*, 507-515. doi: 10.1007/s00127-008-0333-1

Lam, C. L., Pan, P.-C., Chan, A. W., Chan, S.-Y., & Munro, C. (1995). Can the Hospital Anxiety and Depression (Had) Scale Be Used on Chinese Elderly in General Practice? *Family Practice, 12*(2), 149-154. doi: 10.1093/fampra/12.2.149

Langley, A. K., & Jones, R. T. (2005). Coping Efforts and Efficacy, Acculturation, and Post-Traumatic Symptomatology in Adolescents Following Wildfire. *Fire Technology, 41*(2), 125-143.

Lapierre, C. B., Schwegler, A. F., & LaBauve, B. J. (2007). Posttraumatic Stress and Depression Symptoms in Soldiers Returning from Combat Operations in Iraq and Afghanistan. *Journal of Traumatic Stress, 20*(6), 933-943. doi: 10.1002/jts.20278

Lasiuk, G. C. (2008). Posttraumatic Stress Disorder Part I: Historical Development of the Concept, from http://findarticles.com/p/articles/mi_qa3804/is_200602/ai_n16107153

Lazarus, R. S. (1998). *The Life and Work of an Eminent Psychologist: Autobiography of Richard S. Lazarus*. New York: Springer.

Lazarus, R. S., & Folkman, S. (1984). *Stress, Appraisal, and Coping*. New York: Springer Publishing.

LeBlanc, V. R., Regehr, C., Jelley, R. B., & Barath, I. (2008). The Relationship between Coping Styles, Performance, and Responses to Stressful Scenarios in Police Recruits. *International Journal of Stress Management, 15*(1), 76-93. doi: 10.1037/1072-5245.15.1.76

Lehmann, C. (2004a). Iraqi M.D.S Want to Bring Democracy to Med Societies. *Psychiatr News, 39*(7), 1-25.

Lehmann, C. (2004b). U.S. Experts May Help Build New Mh System in Iraq. *Psychiatr News, 39*(7), 24-25.

Levine, P. A., & Frederick, A. (1997). *Waking the Tiger - Healing Trauma*. California: North Atlantic Books.

Lewis, G., & Wessely, S. (1990). Comparison of the General Health Questionnaire and the Hospital Anxiety and Depression Scale. *The British Journal of Psychiatry, 157*(6), 860-864. doi: 10.1192/bjp.157.6.860

Lisspers, J., Nygren, A., & Soderman, E. (1997). Hospital Anxiety and Depression Scale (Had): Some Psychometric Data for a Swedish Sample. *Acta Psychiatr Scand, 96*, 281-286.

Litz, B. T., Williams, L., Wang, J., Bryant, R., & Engel, C. C., Jr. (2004). A Therapist-Assisted Internet Self-Help Program for Traumatic Stress. *Professional Psychology: Research and Practice, 35*(6), 628-634.

Lommen, M. J. J., Sanders, A. J. M. L., Buck, N., & Arntz, A. (2009). Psychosocial Predictors of Chronic Post-Traumatic Stress Disorder in Sri Lankan Tsunami Survivors. *Behaviour Research and Therapy, 47*(1), 60-65.

Lubin, H., Loris, M., Burt, J., & Johnson, D. R. (1998). Efficacy of Psychoeducational Group Therapy in Reducing Symptoms of Posttraumatic Stress Disorder among Multiply Traumatized Women. *Am J Psychiatry, 155*(9), 1172-1177.

Maercker, A., Michael, T., Fehm, L., Becker, E. S., & Margraf, J. (2004). Age of Traumatisation as a Predictor of Post-Traumatic Stress Disorder or Major Depression in Young Women. *The British Journal of Psychiatry, 184*(6), 482-487. doi: 10.1192/bjp.184.6.482

Malasi, T., Mirza, I., & el-Islam, M. (1991). Validation of the Hospital Anxiety and Depression Scale in Arab Patients. *Acta psychiatrica Scandinavica, 84*(4), 323-326.

Marrs, R. (1995). A Meta-Analysis of Bibliotherapy Studies. *American Journal of Community Psychology, 23*(6), 843-870.

Maschi, T. (2006). Trauma and Violent Delinquent Behavior among Males: The Moderating Role of Social Support. *Stress, Trauma, and Crisis, vol, 9*(1), 45-72.

Matsakis, A. (1996). *I Can't Get over It, a Handbook for Trauma Survivors* (2nd ed.). Oakland: New Harbinger Publications, Inc.

Matsudaira, T., Igarashi, H., Kikuchi, H., Kano, R., Mitoma, H., Ohuchi, K., et al. (2009). Factor Structure of the Hospital Anxiety and Depression Scale in Japanese Psychiatric Outpatient and Student Populations. *Health Qual Life Outcomes, 7*(42), 1-9.

McHugh, P. R., & Treisman, G. (2007). Ptsd: A Problematic Diagnostic Category. *J Anxiety Disord, 21*(2), 211 - 222.

Miller, K. E., Weine, S., Ramic, A., Brkic, N., Bjedic, Z. D., Smajkic, A., et al. (2002). The Relative Contribution of War Experiences and Exile-Related Stressors to Levels of Psychological Distress among Bosnian Refugees. *Journal of Traumatic Stress, 15*(5), 11.

Mitchell, T. L., Griffin, K., Stewart, S. H., & Loba, P. (2004). 'We Will Never Ever Forget...': The Swissair Flight 111 Disaster and Its Impact on Volunteers and Communities. *J Health Psychol, 9*(2), 245-262. doi: 10.1177/1359105304040890

Mollica, R. F. (2006). *Healing Invisible Wounds: Paths to Hope and Recovery in a Violent World*. Orlando: Harcourt, INC.

Mollica, R. F., McInnes, K., Sarajlic, N., Lavelle, J., Sarajlic, I., & Massagli, M. P. (1999). Disability Associated with Psychiatric Comorbidity and Health Status in Bosnian Refugees Living in Croatia. *JAMA, 282*(5), 433-439. doi: 10.1001/jama.282.5.433

Montazeri, A., Vahdaninia, M., Ebrahimi, M., & Jarvandi, S. (2003). The Hospital Anxiety and Depression Scale (Hads): Translation and Validation Study of the Iranian Version. *Health and Quality of Life Outcomes, 1*(14), 1-5.

Moorey, S., Greer, S., Watson, M., Gorman, C., Rowden, L., Tunmore, R., et al. (1991). The Factor Structure and Factor Stability of the Hospital Anxiety and Depression Scale in Patients with Cancer. *The British Journal of Psychiatry, 158*(2), 255-259. doi: 10.1192/bjp.158.2.255

Moos, R., & Schaefer, J. (1993). Coping Resources and Processes: Current Concepts and Measures. In L. Goldberger & S. Breznits (Eds.), *Handbook of Stress Theoretical and Clinical Aspects* (2nd ed.). New York: The Free Press.

Morton, M. J., & Burnham, G. M. (2008). Iraq's Internally Displaced Persons. *JAMA: The Journal of the American Medical Association, 300*(6), 727-729. doi: 10.1001/jama.300.6.727

Moser, J. S., Hajcak, G., Simons, R. F., & Foa, E. B. (2007). Posttraumatic Stress Disorder Symptoms in Trauma-Exposed College Students: The Role of Trauma-Related Cognitions, Gender, and Negative Affect. *Journal of Anxiety Disorders, 21*(8), 1039-1049.

Moses, A. (1996). *The Psychological Effects of Violence on Inner City Youth* Ph.D. dissertation dissertation, University of California, Berkeley

Retrieved from <http://wwwlib.umi.com/dissertations/fullcit/9703221>

Müller, J., Wessa, M., Rabe, S., Dörfel, D., Knaevelsrud, C., Flor, H., et al. (2010). Psychometric Properties of the Posttraumatic Cognitions Inventory (Ptci) in a German Sample of Individuals with a History of Trauma. *Psychological Trauma: Theory, Research, Practice, and Policy, 2*(2), 116-125.

Muller, L., & Spitz, E. (2003). Multidimensional Assessment of Coping: Validation of the Brief Cope among French Population. *Encephale, 29*(6), 507-518.

Mullett-Hume, E., Anshel, D., Guevara, V., & Cloitre, M. (2008). Cumulative Trauma and Posttraumatic Stress Disorder among Children Exposed to the 9/11 World Trade Center Attack. *American Journal of Orthopsychiatry, 78*(1), 103-108.

Murthy, R. S., & Lakshminarayana, R. (2006). Mental Health Consequences of War:A Brief Review of Research Findings. *World Psychiatry, 5*(1), 25-30.

Muszbek, K., Szekely, A., Balogh, É. M., Molnár, M., Rohánszky, M., Ruzsa, Á., et al. (2005). Translation and Validation of the Hungarian Hospital Anxiety and Depression Scale Using a Large Cancer Patient Sample Retrieved 23/08/2010, from http://crl.ucsd.edu/*aszekely/psyoncologyres/webmanuscript.pdf

Myers, A., & Hansen, C. H. (2006). *Experimental Psychology* (7th edition ed.). Belmont: Wadsworth, Cengage Learning.

Mykletun, A., Stordal, E., & Dahl, A. (2001). Hospital Anxiety and Depression (Had) Scale: Factor Structure, Item Analyses and Internal Consistency in a Large Population. *The British Journal of Psychiatry, 179*(6), 540-544. doi: 10.1192/bjp.179.6.540

Najavits, L. M. (1993). A Survey of Public Utilization of Self-Help Materials. *The Journal of Psychology, 128*, 617-619.

National Institute for Clinical Excellence. (2005). Post-Traumatic Stress Disorder: The Management of Ptsd in Adults and Children in Primary and Secondary Care. Retrieved 20/10/2011, from http://www.nice.org.uk/nicemedia/pdf/CG026publicinfo.pdf

Navia, C. E., & Ossa, M. (2003). Family Functioning, Coping, and Psychological Adjustment in Victims and Their Families Following Kidnapping. *Journal of Traumatic Stress, 16*(1), 107-112.

Niiyama, E., Okamura, H., Kohama, A., Taniguchi, T., Sounohara, M., & Nagao, M. (2009). A Survey of Nurses Who Experienced Trauma in the Workplace: Influence of Coping Strategies on Traumatic Stress. *Stress and Health, 25*(1), 3-9. doi: 10.1002/smi.1217

Nixon, R. D., & Byrant, R. A. (2005). Are Negative Cognitions Associated with Severe Acute Trauma Response? *Behaviour Change, 22*, 22-28.

O'Donnell, M. L., Bryant, R. A., Creamer, M., & Carty, J. (2008). Mental Health Following Traumatic Injury: Toward a Health System Model of Early Psychological Intervention. *Clinical Psychology Review, 28*(3), 387-406.

O'Donnell, M. L., Creamer, M., & Pattison, P. (2004). Posttraumatic Stress Disorder and Depression Following Trauma: Understanding Comorbidity. *Am J Psychiatry, 161*(8), 1390-1396. doi: 10.1176/appi.ajp.161.8.1390

O'Donnell, M. L., Elliott, P., Wolfgang, B. J., & Creamer, M. (2007). Posttraumatic Appraisals in the Development and Persistence of Posttraumatic Stress Symptoms. *Journal of Traumatic Stress, 20*(2), 173-182.

Obaidi, A. K. S. A. (2010). Iraqi Psychiatrist in Exile Helping Distressed Iraqi Refugee Children in Egypt in Non-Clinical Settings. *Canadian Academy of Child and Adolescent Psychiatry, 19*(2), 72-73.

Oflaz, F., Hatipo Flu , S., & Aydin, H. (2008). Effectiveness of Psychoeducation Intervention on Post-Traumatic Stress Disorder and Coping Styles of Earthquake Survivors. *Journal of Clinical Nursing, 17*(5), 677-687.

Okamoto, K., & Tanaka, Y. (2004). Gender Differences in the Relationship between Social Support and Subjective Health among Elderly Persons in Japan. *Preventive Medicine, 38*(3), 318-322.

Organization, W. H., & Epidemiology, I. C. o. P. (2000). Crossnational Comparisons of Mental Disorders. *Bulletin of the World Health Organization, 78*, 413-442.

Ormerod, j. (2002). Current Research into the Effectiveness of Debriefing. In N. Tehrani (Ed.), *Psychological Debriefing, Professional Practice Board Working Party* (pp. 8-17): The British Psychological Society.

Ozer, E. J., Best, S. R., Lipsey, T. L., & Weiss, D. S. (2003). Predictors of Posttraumatic Stress Disorder and Symptoms in Adults: A Meta-Analysis. *Psychological Bulletin, 129*(1), 52-73.

Pais-Ribeiro, J., Silva, I., Ferreira, T., Martins, A., Meneses, R., & Baltar, M. (2007). Validation Study of a Portuguese Version of the Hospital Anxiety and Depression Scale. *Psychology, Health & Medicine, 12*(2), 225 - 237.

Pantalon, M. V., Lubetkin, B. S., & Fishman, S. T. (1995). Use and Effectiveness of Self-Help Books in the Practice of Cognitive and Behavioral Therapy. *Cognitive and Behavioral Practice, 2*(1), 213-228.

Pardeck, J. T. (1991). Using Books in Clinical Practice *Psychotherapy in Private Practice. ,* 105-119.

Pearce, K. A., Schauer , A. H., Garfield, N. J., Ohlde , C. O., & Patterson, T. W. (1985). A Study of Post Traumatic Stress Disorder in Vietnam Veterans. *Journal of Clinical Psychology, 41*(1), 9-14.

Perczek, R., Carver, C. S., Price, A. A., & Pozo-Kaderman, C. (2000). Coping, Mood, and Aspects of Personality in Spanish Translation and Evidence of Convergence with English Versions. *Journal of Personality Assessment, 74*(1), 63-87.

Person, S., Tracy, M., & Galea, S. (2006). Risk Factors for Depression after a Disaster. *J Nerv Ment Dis, 194*(9), 659-666.

Piccinelli, M., & Homen, F. G. (1997). Gender Differences in the Epidemiology of Affective Disorders and Schizophrenia. Geneva: World Health Organization.

Pickens, J., Field, T. M., Prodromidis, M., Pelaez-Nogueras, M., & Hossain, Z. (1995). Posttraumatic Stress, Depression and Social Support among College Students after Hurricane Andrew. *Journal of College Student Development, vol, 36*(2), 152-161.

Pina, A. A., Villalta, I. K., Ortiz, C. D., Gottschall, A. C., Costa, N. M., & Weems, C. F. (2008). Social Support, Discrimination, and Coping as Predictors of Posttraumatic Stress Reactions in Youth Survivors of Hurricane Katrina. *J Clin Child Adolesc Psychol, 37*(3), 564-574.

Prado, G., Feaster, D. J., Schwartz, S. J., Pratt, I. A., Smith, L., & Szapocznik, J. (2004). Religious Involvement, Coping, Social Support, and Psychological Distress in Hiv-Seropositive African American Mothers. *AIDS and Behavior, 8*(3), 221-235. doi: 10.1023/b:aibe.0000044071.27130.46

Pruitt, L. D., & Zoellner, L. A. (2008). The Impact of Social Support: An Analogue Investigation of the Aftermath of Trauma Exposure. *Journal of Anxiety Disorders, vol, 22*(2), 253-262.

Punamäki, R.-L., Salo, J. A., Komproe, I. H., Qouta, S., Elmasri, M., & De Jong, J. T. V. M. (2008). Dispositional and Situational Coping and Mental Health among Palestinian Political Ex-Prisoners. *Anxiety, Stress, and Coping, 21*(4), 337-358.

Quintana, J. M., Padierna, A., Esteban, C., Arostegui, I., Bilbao, A., & Ruiz, I. (2003). Evaluation of the Psychometric Characteristics of the Spanish Version of the Hospital Anxiety and Depression Scale. *Acta Psychiatrica Scandinavica, 107*(3), 216-221.

Rajandram, R. K., Jenewein, J., McGrath, C., & Zwahlen, R. A. (2011). Coping Processes Relevant to Posttraumatic Growth: An Evidence-Based Review. [Review]. *Supportive Care in Cancer, 19*(5), 583-589. doi: 10.1007/s00520-011-1105-0

Razavi, D., Delvaux, N., Farvacques, C., & Robaye, E. (1990). Screening for Adjustment Disorders and Major Depressive Disorders in Cancer in-Patients. *The British Journal of Psychiatry, 156*(1), 79-83. doi: 10.1192/bjp.156.1.79

Razokhi, A. H., Taha, I. K., Taib, N. I., Sadik, S., & Gasseer, N. A. (2006). Mental Health of Iraqi Children. *The Lancet, 368*(9538), 838-839.

Redding, R. E., Herbert, J. D., Forman, E. M., & Gaudiano, B. A. (2008). Popular Self-Help Books for Anxiety, Depression, and Trauma: How Scientifically Grounded and Useful Are They? *Professional Psychology: Research and Practice, 39*(5), 537-545.

Ressler, K. J., Mercer, K. B., Bradley, B., Jovanovic, T., Mahan, A., Kerley, K., et al. (2011). Post-Traumatic Stress Disorder Is Associated with Pacap and the Pac1 Receptor. *Nature, 470*(7335), 492-497.

Riolli, L., & Savicki, V. (2010). Coping Effectiveness and Coping Diversity under Traumatic Stress. *International Journal of Stress Management, 17*(2), 97-113.

Roberts, L., Lafta, R., Garfield, R., Khudhairi, J., & Burnham, G. (2004). Mortality before and after the 2003 Invasion of Iraq: Cluster Sample Survey. *The Lancet, 364*(9448), 1857-1864.

Rogers, K. L. (1995). *Posttraumatic Stress Disorder in a Sample of Conduct Disordered Youth.* Ph.D. dissertation dissertation. Retrieved from http://wwwlib.umi.com/dissertations/fullcit/NN06791

Rose, S., & Bisson, J. (1998). Brief Early Psychological Interventions Following Trauma: A Systematic Review of the Literature. *Journal of Traumatic Stress, 11*(4), 697-710.

Rose, S., Bisson, J., Churchill, R., & Wessely, S. (2002). Psychological Debriefing for Preventing Psot Traumatic Stress Disorder (Ptsd) (Review). *Cochrane Database of Systematic Reviews 2*, 1-38.

Rosen, G. M. (1981). Guidelines for the Review of Do-It-Yourself Books. *Contemporary Psychology, 26*, 189-191.

Rosen, G. M. (1987). Self-Help Treatment Books and the Commercialization of Psychotherapy. *American Psychologist, 42*(1), 46-51. doi: 10.1037/0003-066x.42.1.46

Rosenbloom, D., Williams, M. B., & Watkins, B. (2010). *Life after Trauma, a Workbook for Healing*. New York: The Guilford Press.

Ruzek, J. I. (2001). Early Intervention to Prevent Development of Ptsd: Toward Effective Post-Trauma Education. *National Center for PTSD Clinical Quarterly, 10*(4).

Saari, S. (2005). *Bolt from the Blue: Coping with Disasters and Acute Trauma.* London: Jessica Kingsley Publishers.

Sadik, S., Bradley, M., Al-Hasoon, S., & Jenkins, R. (2010). Public Perception of Mental Health in Iraq. *International Journal of Mental Health Systems, 4*(1), 26.

Salem-Pickartz, J. (2009). Iraqi Refugees in Jordan Research Their Own Living Conditions: 'We Only Have Our Faith and Families to Hold on to'. *Intervention, 7*(1), 34-49.

Salih, A. (2008). *The Effect of the Rationale and Emotional Therapy and the Modelling Therapy in Moderating Ptsd of the Pupils at the Intermediate School.* Unpublished Master thesis, Baghdad University.

Sandler, I., & Barrera, M. (1984). Toward a Multimethod Approach to Assessing the Effects of Social Support. *American Journal of Community Psychology, 12*(1), 37-52. doi: 10.1007/bf00896927

Sarason, I. G., Levine, H. M., Basham, R. B., & Sarason, B. R. (1983). Assessing Social Support: The Social Support Questionnaire. *The Journal of Personality and Social Psychology, 44*(1), 127-139.

Scarpa, A., Haden, S. C., & Hurley, J. D. (2006). Community Violence Victimization and Symptoms of Posttraumatic Stress Disorder: The Moderating Effects of Coping and Social Support. *Journal of Interpersonal Violence, 21*(4), 446-469.

Scheck, M. M., Schaeffer, J. A., & Gillette, C. (1998). Brief Psychological Intervention with Traumatized Young Women: The Efficacy of Eye Movement Desensitization and Reprocessing. *Journal of Traumatic Stress, 11*(1), 25-44.

Scher, C. D., & Ellwanger, J. (2009). Fire-Related Cognitions Moderate the Impact of Risk Factors on Adjustment Following Wildfire Disaster. *Journal of Anxiety Disorders, 23*(7), 891-896.

Schiraldi, G. R. (2000). *The Post-Traumatic Stress Disorder Sourcebook: A Guide to Healing, Recovery, and Growth*. Los Angeles: Lowell House.

Schnider, K. R., Elhai, J. D., & Gray, M. J. (2007). Coping Style Use Predicts Posttraumatic Stress and Complicated Grief Symptom Severity among College Students Reporting a Traumatic Loss. . *Journal of Counseling Psychology, 54*(3), 344-350.

Schnyder, U., Moergeli, H., Klaghofer, R., & Buddeberg, C. (2001). Incidence and Prediction of Posttraumatic Stress Disorder Symptoms in Severely Injured Accident Victims. *Am J Psychiatry, 158*(4), 594-599. doi: 10.1176/appi.ajp.158.4.594

Schroevers, M. J., & Teo, I. (2008). The Report of Posttraumatic Growth in Malaysian Cancer Patients: Relationships with Psychological Distress and Coping Strategies. *Psycho-Oncology, 17*(12), 1239-1246.

Schuettler, D., & Boals, A. (2011). The Path to Posttraumatic Growth Versus Posttraumatic Stress Disorder: Contributions of Event Centrality and Coping. [Article]. *Journal of Loss & Trauma, 16*(2), 180-194. doi: 10.1080/15325024.2010.519273

Scogin, F., Bynum, J., Stephens, G., & Calhoon, S. (1990). Efficacy of Self-Administered Treatment Programs: Meta-Analytic Review. *Professional Psychology: Research and Practice, 21*(1), 42-47. doi: 10.1037/0735-7028.21.1.42

Scott, M. J. (2008). *Moving on after Trauma, a Guide to Survivors, Family and Friends*. London And New York: Routledge.

Shemain, R. M. B. (2001). *Combat Veterans and Complex Posttraumatic Stress Disorder.* Psy.D. dissertation. Retrieved from http://wwwlib.umi.com/dissertations/fullcit/3009245

Shoeb, M., Weinstein, H., & Mollica, R. (2007). The Harvard Trauma Questionnaire: Adapting a Cross-Cultural Instrument for Measuring Torture, Trauma and Posttraumatic Stress Disorder in Iraqi Refugees. *International Journal of Social Psychiatry, 53*(5), 447-463. doi: 10.1177/0020764007078362

Shumaker, S. A., & Hill, D. R. (1991). Gender Differences in Social Support and Physical Health. *Health Psychology, 10*(2), 102-111.

Sijbrandij, M., Olff, M., Reitsma, J. B., Carlier, I. V. E., de Vries, M. H., & Gersons, B. P. R. (2007). Treatment of Acute Posttraumatic Stress Disorder with Brief Cognitive Behavioral Therapy: A Randomized Controlled Trial. *Am J Psychiatry, 164*(1), 82-90. doi: 10.1176/appi.ajp.164.1.82

Sijbrandij, M., Olff, M., Reitsma, J. B., Carlier, I. V. E., & Gersons, B. P. R. (2006). Emotional or Educational Debriefing after Psychological Trauma: Randomised Controlled Trial. *The British Journal of Psychiatry, 189*(2), 150-155. doi: 10.1192/bjp.bp.105.021121

Silver, R. C., Holman, E. A., McIntosh, D. N., Poulin, M., & Gil-Rivas, V. (2002). Nationwide Longitudinal Study of Psychological Responses to September 11. *JAMA, 288*(10), 1235-1244. doi: 10.1001/jama.288.10.1235

Silver, S. M., & Iacono, C. V. (1984). Factor-Analytic Support for Dsm-Iii's Post-Traumatic Stress Disorder for Vietnam Veterans. *Journal of Clinical Psychology, 40*(1), 5-14.

Sinclair, V. G., & Wallston, K. A. (2004). The Development and Psychometric Evaluation of the Brief Resilient Coping Scale. *Assessment, 11*(1), 94-101. doi: 10.1177/1073191103258144

Smith, P., Perrin, S., Yule, W., Hacam, B., & Stuvland, R. (2002). War Exposure among Children from Bosnia-Hercegovina: Psychological Adjustment in a Community Sample. *Journal of Traumatic Stress, 15*(2), 10.

Smith, P., Perrin, S., Yule, W., & Rabe-Hesketh, S. (2001). War Exposure and Maternal Reactions in the Psychological Adjustment of Children from Bosnia-Hercegovina. *J. Child Psychol. Psychiat, 42*(3), 395±404.

Solomon, Z., Dekel, R., & Mikulincer, M. (2008). Complex Trauma of War Captivity: A Prospective Study of Attachment and Post-Traumatic Stress Disorder. *Psychological Medicine, 38*(10), 1427-1434.

Soysa, C. K. (2002). Post-Traumatic Stress Disorder in Sri Lankan Children Exposed to War: The Roles of Culture, the Nature of the Stressor, Temperament, Coping Strategies, and Perceived Social Support [Dissertation] (267 Pp.). *Clark University*.

Spinhoven, P., Ormel, J., Sloekers, P. P. A., Kempen, G. I. J. M., Speckens, A. E. M., & Hemert, A. M. V. (1997). A Validation Study of the Hospital Anxiety and Depression Scale (Hads) in Different Groups of Dutch Subjects. *Psychological Medicine, 27*(02), 363-370. doi: doi:10.1017/S0033291796004382

Spitzer, R. L., First, M. B., & Wakefield, J. C. (2007). Saving Ptsd from Itself in Dsm-V. *J Anxiety Disord, 21*(2), 233 - 241.

Stallard, P. a. S., E. (2007). Appraisals and Cognitive Coping Styles Associated with Chronic Post-Traumatic Symptoms in Child Road Traffic Accident Survivors. *Journal of Child Psychology and Psychiatry, 48*(2), 8.

Stanton, A. L., Kirk, S. B., Cameron, C. L., & Danoff-Burg, S. (2000). Coping through Emotional Approach: Scale Construction and Validation. . *Journal of Personality and Social Psychology, 78*(6), 1150-1169.

Starker, S. (1988). Do-It-Yourself Therapy: The Prescription of Self-Help Books by Psychologists. *Psychotherapy: Theory, Research, Practice, Training, 25*(1), 142-146. doi: 10.1037/h0085310

Startup, M., Makgekgenene, L., & Webster, R. (2007). The Role of Self-Blame for Trauma as Assessed by the Posttraumatic Cognitions Inventory (Ptci): A Self-Protective Cognition? *Behaviour Research and Therapy, 45*(2), 395-403.

Stein, B. D., Jaycox, L. H., Kataoka, S. H., Wong, M., Tu, W., Elliott, M. N., et al. (2003). A Mental Health Intervention for Schoolchildren Exposed to Violence: A Randomized Controlled Trial. *JAMA, 290*(5), 603-611. doi: 10.1001/jama.290.5.603

Stewart, S. H., Mitchell, T. L., Wright, K. D., & Loba, P. (2004). The Relations of Ptsd Symptoms to Alcohol Use and Coping Drinking in Volunteers Who Responded to the Swissair Flight 111 Airline Disaster. *Journal of Anxiety Disorders, 18*(1), 51-68.

Strous, R. D., Mishaeli, N., Ranen, Y., Benatov, J., Green, D., & Zivotofsky, A. Z. (2007). Confronting the Bomber: Coping at the Site of Previous Terror Attacks. *Journal of Nervous and Mental Disease, 195*(3), 233-239.

Su, Y.-J., & Chen, S.-H. (2008). The Posttraumatic Cognitions Inventory-Chinese Revised: Validation and Refinement with a Traumatized College Sample in Taiwan. *Journal of Anxiety Disorders, 22*(7), 1110-1119.

Tarantino, D. A. J., Morton, M. J., Kosaraju, A., Jawad, S., & Casscells, S. W. (2009). Health System Reconstruction in Iraq - the Way Ahead: A Report from the Iraq Health Symposium, May 20-21, 2008. *World Medical & Health Policy, 1*(1, Article 12). doi: 10.2202/1948-4682.1000

Tardy, C. H. (1985). Social Support Measurement. *American Journal of Community Psychology, 13*(2), 187-202. doi: 10.1007/bf00905728

Tarrier, N., & Humphreys, A.-L. (2004). Ptsd and the Social Support of the Interpersonal Environment: The Development of Social Cognitive Behavior Therapy In S. Taylor (Ed.), *Advances in the Treatment of Posttraumatic Stress Disorder : Cognitive-Behavioral Perspectives* (pp. 132-127). New York, NY, USA: Springer Publishing Company.

Taylor, S. E. (2006). Social Support. In H. S. Friedman & R. Cohen Silver (Eds.), *Foundations of Health Psychology* (pp. 145-171). Cary, NC, USA: Oxford University Press.

Thavichachart, N., Tangwongchai, S., Worakul, P., Kanchanatawan, B., Suppapitiporn, S., Pattalung, A., et al. (2009). Posttraumatic Mental Health Establishment of the Tsunami Survivors in Thailand. *Clinical Practice and Epidemiology in Mental Health, 5*(1), 11.

Tuna, M. E. (2003). *Cross-Cultural Differences in Coping Strategies as Predictors of University Adjustment of Turkish and Us Students.* PhD PhD Thesis, MIDDLE EAST TECHNICAL UNIVERSITY. Retrieved from http://etd.lib.metu.edu.tr/upload/3/579318/index.pdf

Tuncay, T., Musabak, I., Gok, D., & Kutlu, M. (2008). The Relationship between Anxiety, Coping Strategies and Characteristics of Patients with Diabetes. *Health and Quality of Life Outcomes, 6*(1), 79.

Turnbull, G. J. (1998a). A Review of Post-Traumatic Stress Disorder. Part I: Historical Development and Classification. *Injury, 29*(2), 87-91.

Turnbull, G. J. (1998b). A Review of Post-Traumatic Stress Disorder. Part Ii: Treatment. *Injury, 29*(3), 169-175.

Turner, R. J. (1981). Social Support as a Contingency in Psychological Well-Being. *Journal of Health and Social Behavior, 22*(4), 357-367.

Turpin, G., Downs, M., & Mason, S. (2005). Effectiveness of Providing Self-Help Information Following Acute Traumatic Injury: Randomised Controlled Trial. *The British Journal of Psychiatry, 187*(1), 76-82. doi: 10.1192/bjp.187.1.76

Tyrer, P. (2001). The Case for Cothymia: Mixed Anxiety and Depression as a Single Diagnosis. *The British Journal of Psychiatry, 179*(3), 191-193. doi: 10.1192/bjp.179.3.191

Uchino, B. N. (2004). *Social Support and Physical Health : Understanding the Health Consequences of Relationships*. New Haven, CT, USA: Yale University Press.

UNICEF. (2007). Immediate Needs for Iraqi Children in Iraq and Neighbouring Countries. Geneva.

Urrutia, H., & Carla, P. (1996). *Types and Effects of War Trauma across Different Geographical Regions and Communities in El Salvador* Psy.D. dissertation dissertation, Fuller Theological Seminary, School of Psychology. Retrieved from http://wwwlib.umi.com/dissertations/fullcit/9636932

Valentiner, D. P., Foa, E. B., Riggs, D. S., & Gershuny, B. S. (1996). Coping Strategies and Posttraumatic Stress Disorder in Female Victims of Sexual and Nonsexual Assault. . *Journal of Abnormal Psychology, 105*(3), 455-458.

van der Kolk, B., & Greenberg, M. (1987). The Psychoboilogy of Trauma Response: Hyperarousal, Constriction, and Addiction to Traumatic Reexposure. In B. Van der Kolk (Ed.), *Psychological Trauma* (pp. 63-88). Washington D.C.: American Psychiatric Press.

van Emmerik, A. A. P., Schoorl, M., Emmelkamp, P. M. G., & Kamphuis, J. H. (2006). Psychometric Evaluation of the Dutch Version of the Posttraumatic Cognitions Inventory (Ptci). *Behaviour Research and Therapy, 44*(7), 1053-1065.

Varley, R., Webb, T. L., & Sheeran, P. (2011). Making Self-Help More Helpful: A Randomized Controlled Trial of the Impact of Augmenting Self-Help Materials with Implementation Intentions on Promoting the Effective Self-Management of Anxiety Symptoms. *Journal of Consulting and Clinical Psychology, 79*(1), 123.

Vaux, A. (1988). *Social Support: Theory, Resaerch, and Intervention*. New York: Praeger Publishers.

Vaux, A., Riedel, S., & Stewart, D. (1987). Modes of Social Support: The Social Support Behaviors (Ss-B) Scale. *American Journal of Community Psychology, 15*(2), 209-232. doi: 10.1007/bf00919279

Voges, M., & Romney, D. (2003). Risk and Resiliency Factors in Posttraumatic Stress Disorder. *Annals of General Hospital Psychiatry, 2*(1), 4.

Vrana, S., & Lauterbach, D. (1994). Prevalence of Traumatic Events and Post-Traumatic Psychological Symptoms in a Nonclinical Sample of College Students. *Journal of Traumatic Stress, 7*(2), 289-302.

Wagner, B., Schulz, W., & Knaevelsrud, C. (2011). Efficacy of an Internet-Based Intervention for Posttraumatic Stress Disorder in Iraq: A Pilot Study. *Psychiatry Research*. Retrieved from http://www.sciencedirect.com/science/article/pii/S0165178111005300

Wasserman, D. A., E. Havassy, B., & Boles, S. M. (1997). Traumatic Events and Post-Traumatic Stress Disorder in Cocaine Users Entering Private Treatment. *Drug and Alcohol Dependence, 46*(1-2), 1-8.

Weathers, F. W., Ruscio, A. M., & Keane, T. M. (1999). Psychometric Properties of Nine Scoring Rules for the Clinician-Administered Posttraumatic Stress Disorder Scale. *Psychological Assessment, 11*(2), 124-133. doi: 10.1037/1040-3590.11.2.124

Weisæth, L. (2001). Acute Posttraumatic Stress: Nonacceptance of Early Intervention. *Journal of Clinical Psychiatry, 62*(17), 35-40.

Weiss, D. S., & Marmar, C. R. (1996). The Impact of Event Scale-Revised. In J. Wilson & T. M. Keane (Eds.), *Assessing Psychological Trauma and Ptsd* (pp. 399-411). New York: Guilford.

Weiss, D. S., Marmar, C. R., Schlenger, W. E., Fairbank, J. A., Jordan, B. K., Hough, R. L., et al. (1992). The Prevalence of Lifetime and Partial Post-Traumatic Stress Disorder in Vietnam Theater Veterans. *Journal of Traumatic Stress, 5*(3), 365-376.

Whealin, J., & Slone, L. (2008). Complex Ptsd Retrieved 21/10/2008, from http://www.ncptsd.va.gov/ncmain/ncdocs/fact_shts/fs_complex_ptsd.html

WHO-Iraq. (2006). **Healing Minds** Mental Health Progress Report 2004-2005: World Health Organization Iraq.

Willert, M. V., Thulstrup, A. M., Hertz, J., Bonde, J. P., & Sc, M. (2009). Changes in Stress and Coping from a Randomized Controlled Trial of a Three-Month Stress Management Intervention. *Scand J Work Environ Health, 35*(2), 145-152.

Williams, M. B., & Poijula, S. (2002). *The Ptsd Workbook : Simple, Effective Techniques for Overcoming Traumatic Stress Symptoms*. Oakland, Calif.: New Harbinger Publications.

Wilson, D. M., & Cash, T. F. (2000). Who Reads Self-Help Books?: Development and Validation of the Self-Help Reading Attitudes Survey. *Personality and Individual Differences, 29*(1), 119-129.

Wooley, C. F. (1982). Jacob Mendez Dacost A: Medical Teacher, Clinician, and Clinical Investigator. *The American Journal of Cardiology, 50*(5), 1145-1148.

Wyshak, G. (1994). The Relation between Change in Reports of Traumatic Events and Symptoms of Psychiatric Distress. *General Hospital Psychiatry, 16*(4), 290-297.

Yehuda, R., & McFarlane, A. C. (1995). Conflict between Current Knowledge About Posttraumatic Stress Disorder and Its Original Conceptual Basis. *The American Journal of Psychiatry, 152*(12), 1705 - 1713.

Yule, W., Bolton, D., Udwin, O., Boyle, S., O'Ryan, D., & Nurrish, J. (2000). The Long-Term Psychological Effects of a Disaster Experienced in Adolescence: I: The Incidence and Course of Ptsd. *The Journal of Child Psychology and Psychiatry and Allied Disciplines, 41*(04), 503-511. doi: doi:null

Yusoff, N., Low, W. Y., & Yip, C. H. (2010). Reliability and Validity of the Brief Cope Scale (English Version) among Women with Breast Cancer Undergoing Treatment of Adjuvant Chemotherapy: A Malaysian Study. *Med J Malaysia, 65*(1), 41-44.

Zigmond, A. S., & Snaith, R. P. (1983). The Hospital Anxiety and Depression Scale. *Acta Psychiatr Scand, 67*(6), 361-370.

Zimering, R., Caddell, J. M., Fairbank, J. A., & Keane, T. M. (1993). Post-Traumatic Stress Disorder in Vietnam Veterans: An Experimental Validation of the Dsm-Iii Diagnostic Criteria. *Journal of Traumatic Stress, 6*(3), 327-342.

Appendix 1: Consent of participation

This is to state that I agree to participate in a program of research (**Developing a self-help guide for traumatised university students in Iraq**)being conducted by (*Saad S Jaber, PhD Student* of Institute of Work, Health and Organisations of the University of Nottingham*)* (lwxsj3@nottingham.ac.uk, under supervision of Dr. Nigel Hunt nigel.hunt@nottingham.ac.uk], Dr. Rachel Sabin-Farrell [Rachel.Sabin-farrell@nottingham.ac.uk], and Dr. Abdalgaffar Alqaisy [gqaisy@yahoo.com]).

A. PURPOSE

I have been informed that the purpose of the research is as follows:

1- Collection of data about the prevalence rates of traumatic events and post traumatic stress symptoms.
2- Conducting an experiment to evaluate the effectiveness of a self-help guide which aims to reduction of post traumatic symptoms and to develop coping skills. In addition, conducting focus groups.

B. PROCEDURES

I have been informed that the procedures of the research are as follows:

1-The participants respond to 6 paper questionnaires about traumatic events, post traumatic stress symptoms, posttraumatic cognition, social support, brief cope, and depression and anxiety symptoms.

2-Later on, those who fit the study's criteria will be asked to take part in the experiment. It includes reading a self-help guide and responding to the questionnaires three times before and after using the self-help guide. The experiment will be last for two months.

C. RISKS AND BENEFITS

The participation in this study will help develop methods to help the traumatised people in Iraq to deal with traumatic experiences. Also, personally, you will have a chance to obtain new information about coping with the trauma.

Due to your responses to the questionnaires and participation in the experiment, some distress might be experienced; this is usually temporary; otherwise you can call Counselling Unit in the Psychological Research Centre on 7786678

D. CONDITIONS OF PARTICIPATION

- I understand that I am free to withdraw my consent and discontinue my participation at any time without negative consequences.
- I understand that my participation in this study is CONFIDENTIAL.
- I understand that the data from this study may be published.

I HAVE CAREFULLY STUDIED THE ABOVE AND UNDERSTAND THIS AGREEMENT. I FREELY CONSENT AND VOLUNTARILY AGREE TO PARTICIPATE IN THIS STUDY. I CONFIRM THAT I HAVE RECEIVED A COPY OF THIS CONSENT.

NAME (please print)

SIGNATURE

_____

If at any time you have questions about the proposed research, please contact the investigator at {lwxsj3@nottingham.ac.uk, on mobile number: 07800189409}

Appendix 2: Baghdad Trauma History Screen (BTHS)

This questionnaire is to assess the trauma history. Could you please determine whether you and/or your family members or close friends were exposed to any of these events by putting (✓) if you have experienced the event? If your answer is YES please answer the other questions about the experienced event?

Events	Myself		My a family member or friend		If you have experienced the event?		
					How many times it has occurred?	Did you feel fear, horror, or helplessness?	
	YES	NO	YES	NO		YES	NO
1. Aerial bombing							
2. Watching authentic video clips depicting killing							
3. Losing a close person							
4. Witnessing someone who had been killed or kidnapped							
5. Hanging of a close relative or friend							
6. Sudden death of a family member							
7. Roadside explosion							
8. Car bomb							
9. Armed robbery							
10. Shooting							
11. Politically motivated arrests							
12. Severe Motor Vehicle accident							
13. Victim of sexual rape							
14. Migration or displacement							

15. Robbery at gunpoint							
16. Kidnapping							
17. Attempt to kill							
18. Attack by military force							
19. Chemical attack							
20. Physical torture							

Appendix 3: Brief Cope

These items deal with ways you've been coping with the stress in your life since you found out you were going to have to have this operation. There are many ways to try to deal with problems. These items ask what you've been doing to cope with this one. Obviously, different people deal with things in different ways, but I'm interested in how you've tried to deal with it. Each item says something about a particular way of coping. I want to know to what extent you've been doing what the item says. How much or how frequently. Don't answer on the basis of whether it seems to be working or not—just whether or not you're doing it. Use these response choices. Try to rate each item separately in your mind from the others. Make your answers as true FOR YOU as you can.

1 = I haven't been doing this at all

2 = I've been doing this a little bit

3 = I've been doing this a medium amount

4 = I've been doing this a lot

Items	Score
1-I've been concentrating my efforts on doing something about the situation I'm in.	
2-I've been trying to come up with a strategy about what Io do.	
3-I've been trying to see it in a different light, to make it seem more positive.	
4-I've been looking for something good in what is happening.	
5-I've been criticizing myself.	
6-I've been blaming myself for things that happened.	
7-I've been giving up the attempt to cope.	
8-I've been using alcohol or other drugs to help me get through it.	
9-I've been doing something to think about it less, such as going to movies, watching TV, reading, daydreaming, sleeping, or	

shopping.	
10-I've been getting help and advice from other people.	
11-I've been getting comfort and understanding from someone.	
12-I've been praying or meditating.	
13-I've been taking action to try to make the situation better.	
14-I've been thinking hard about what steps to take.	
15-I've been trying to find comfort in my religion or spiritual beliefs.	
16-I've been getting emotional support from others.	
17-I've been trying to get advice or help from other people about what to do.	
18-I've been turning to work or other activities to take my mind off things.	
19-I've been using alcohol or other drugs to make myself feel better.	
20-I've been giving up trying to deal with it.	

Appendix 4: Social Support Scale

These items deal with social support receive from family, friends, or organisations. Could you please estimate how much you have received social support from these sources: family, friends, and NGO and GO.

The first 11 items measure the types of social support: emotional, informational, instrumental. The last two items are to measure the satisfaction with the received social support for each source.

0=Not at all, 1=Little, 3= Moderate, 4= very much

Items	Family	Friends	GO-NGO
1. Helped me to feel better			
2. Made me feel that I'm really an important person			
3. Expressed to me that they understand my feelings			
4. Helped me to deal with the traumatic event			
5. Provided me information about traumatic events			
6. Provided me with a place when I needed it			
7. Helped to accept the incident as an accident			
8. Talked with me about the decisions that I made about the incident			
9. Said things that helped me to understand the trauma			
10. Encouraged me to be in touch with others			
11. Let me know that they will be around if I need assistance			
12. I feel satisfied about the support that I have received			
13. I feel that the support that I have received was helpful			

Appendix 5: Screen for Posttraumatic Stress Symptoms (SPTSS)

Please answer to these items by **Tick** the box under the alternative which reflects the number of occurring times of these things during the last month. These are no true or false answers, your answer just expresses about your feelings.

Items	not at all	1 or 2 times	almost every day	about once every day	more than once every day
1. I don't feel like doing things that I used to like doing.	☐	☐	☐	☐	☐
2. I can't remember much about bad things that have happened to me.	☐	☐	☐	☐	☐
3. I feel cut off and isolated from other people.	☐	☐	☐	☐	☐
4. I try not to think about things that remind me of something bad that happened to me.	☐	☐	☐	☐	☐
5. I feel numb: I don't feel emotions as strongly as I used to.	☐	☐	☐	☐	☐
6. I have trouble concentrating on things or paying attention to something for a long time.	☐	☐	☐	☐	☐
7. I have a hard time thinking about the future and believing that I'm going to live to old age.	☐	☐	☐	☐	☐
8. I feel very irritable and lose my temper.	☐	☐	☐	☐	☐
9. I avoid doing things or being in situations that might remind me of something terrible that happened to me in the past.	☐	☐	☐	☐	☐
10. I am very aware of my surroundings and nervous about what's going on around me.	☐	☐	☐	☐	☐
11. I find myself remembering bad things that happened to me over and over, even when I don't want to think about them.	☐	☐	☐	☐	☐
12. I get startled or surprised very easily and "jump " when I hear a	☐	☐	☐	☐	☐

sudden sound.					
13. I have bad dreams about terrible things that happened to me.	□	□	□	□	□
14. I get very upset when something reminds me of something bad that happened to me.	□	□	□	□	□
15. I have trouble getting to sleep or staying asleep.	□	□	□	□	□
16. When something reminds me of something bad that happened to me, I feel shaky, sweaty, nervous and my heart beats really fast.	□	□	□	□	□
17. I suddenly feel like I am back in the past, in a bad situation that I was once in, and it's like it was happening it all over again.	□	□	□	□	□

Appendix 6: Posttraumatic Cognitions Inventory

We are interested in the kind of thoughts which you may have had after a traumatic experience. Below are a number of statements that may or may not be representative of your thinking.

Please read each statement carefully and tell us how much you AGREE or DISAGREE with each statement. People react to traumatic events in many different ways. There are no right or wrong answers to these statements.

1 Totally disagree
2 Disagree very much
3 Disagree slightly
4 Neutral
5 Agree slightly
6 Agree very much
7 Totally agree

Statements	**Score of agreement**
1. The event happened because of the way I acted.	
2. I can't trust that I will do the right thing.	
3. I am a weak person.	
4. I will not be able to control my anger and will do something terrible.	
5. I can't deal with even the slightest upset.	
6. I used to be a happy person but now I am always miserable.	
7. People can't be trusted.	
8. I have to be on guard all the time.	
9. I feel dead inside.	
10. You can never know who will harm you.	
11. I have to be especially careful because you never know what can happen next.	
12. I am inadequate.	
13. If I think about the event, I will not be able to handle it.	
14. The event happened to me because of the sort of person I am.	
15. My reactions since the event mean that I am going crazy.	
16. I will never be able to feel normal emotions again.	

17. The world is a dangerous place.	
18. Somebody else would have stopped the event from happening.	
19. I have permanently changed for the worse	
20. I feel like an object, not like a person.	
21. Somebody else would not have gotten into this situation.	
22. I can't rely on other people.	
23. I feel isolated and set apart from others.	
24. I have no future.	
25. I can't stop bad things from happening to me.	
26. People are not what they seem.	
27. My life has been destroyed by the trauma.	
28. There is something wrong with me as a person.	
29. My reactions since the event show that I am a lousy coper.	
30. There is something about me that made the event happen.	
31. I feel like I don't know myself anymore.	
32. I can't rely on myself.	
33. Nothing good can happen to me anymore.	

Appendix 7: The Hospital Anxiety and Depression Scale (HADS)

Read each item and place a firm tick in the box opposite the reply, which comes closest to how you have been feeling in the past week.

Don't take too long over your replies; your immediate reaction to each item will probably be more accurate than a long thought-out response. Tick one box only in each section.

1 I feel tense or wound up:		**8** I get a sort of frightened feeling like "butterflies" in the stomach:	
Most of the time	☐	Not at all	☐
A lot of the time	☐	Occasionally	☐
Time to time, occasionally	☐	Quite often	☐
Not at all	☐	Very often	☐
2 I still enjoy the things I used to enjoy:		**9** I have lost interest in my appearance:	
Definitely as much	☐	Definitely	☐
Not quite so much	☐	I don't take so much care as I should	☐
Only a little	☐	I may not take quite as much care	☐
Hardly at all	☐	I take just as much care as ever	☐
3 I get a sort of frightened feeling as if something awful is about to happen:		**10** I feel restless as if I have to be on the move:	
Very definitely and quite badly	☐	Very much indeed	☐
Yes, but not too badly	☐	Quite a lot	☐
A little, but it doesn't worry me	☐	Not very much	☐
Not at all	☐	Not at all	☐
4 I can laugh and see the funny side of things:		**11** I look forward with enjoyment to things:	
As much as I always could	☐	As much as I ever did	☐
Not quite so much now	☐	Rather less than I used to	☐
Definitely not so much now	☐	Definitely less than I used to	☐
Not at all	☐	Hardly at all	☐
5 Worrying thoughts go through my mind:		**12** I get sudden feelings of panic:	
A great deal of the time	☐	Very often indeed	☐
A lot of the time	☐	Quite often	☐
From time to time bur not too often	☐	Not very often	☐
Only occasionally	☐	Not at all	☐
6 I feel cheerful		**13** I can enjoy a good book or radio or	

Not at all	☐	TV programme: Often	☐
Not often	☐	Sometimes	☐
Sometimes	☐	Not often	☐
Most of the time	☐	Very seldom	☐
7 I feel as if I am slowed down:			
Nearly all the time	☐		
Very often	☐		
Sometimes	☐		
Not at all	☐		

Appendix 8: The Self-help guide.

Introduction

This guide is designed to help traumatised people gain understand of traumatic events and their impact on people. It is normal that people who have experienced a traumatic incident developed related symptoms. People could be able to recover if they deal actively with these symptoms. Therefore, this guide present coping skills to deal with traumatic experiences. We recommend that you use the guide in time and place that you feel comfortable for you. Try to use it step by step. This guide does not have a magic impact, the magic impact in yourself. This guide aims to help you how to help yourself. We should always remember that “indeed, Allah will not change the condition of a people until they change what is in themselves” (Sura, Ar-Ra’d, verse 11). It is important that you regularly use this guide and do the presented tasks and exercises. There are resources for further help and information through and at the end of the guide.

Traumatic Events in Iraq

Over the last few decades, especially since the 2003 invasion, the Iraqi people have experienced many traumatic events on an ongoing basis. These events have included wars and numerous forms of political repression, violence, and terrorism. These psychologically painful incidents can affect different aspects of personality and emotion and can lead to a number of mental disorders. In the last year we conducted two studies in Baghdad universities. Their results reflected a high prevalence of traumatic events. These events were mainly

related to war and experiences of violence. The vast majority of students were exposed to a number of traumatic events which made them feel fear, horror, helpless, and/or sadness. Students reported a personal exposure more than others exposure. These results seem consistent with most of the studies conducted in Iraq that have focused on traumatic events. In contrast, traumatic events reported by Iraqi students clearly differ from studies conducted in other countries. For example, killing and life-threatening events were more prevalent in this Iraqi study, while in other non Iraqi studies, events such as rape, car accidents, and work stress were reported more. Therefore, this reflects the special nature of the traumatic events which are experienced by Iraqi people, they are multiple and prolonged and often related to violence and war.

What are the effects of exposure to traumatic events?

As a result of exposure to traumatic events, students reported varying levels of Post Traumatic Stress Disorder (PTSD) symptoms as well as associated symptoms such as depression and anxiety, these symptoms will be explained later. The more life threatening an event, the more likely it will lead to PTSD. Other predictors of PTSD include poor coping skills such denial, self blame, and self destruction.

It is very necessary developing coping skills, isn't it?

In light of the high prevalence of traumatic incidents and PTSD, and the difficulty of developing effective long term strategies (as supported by the results of previous studies in Iraq), in addition to the absence of places that

provide the necessary support for the traumatised people; the need for a variety of approaches to improve people's coping skills relating to traumatic events is obvious. More especially, since people in Iraq are still exposed to continuing traumatic incidents.

It is normal that people who experience traumatic events may show the PTSD symptoms either temporarily or for long periods; this does not reflect weakness of personality. However, seeking for help either via the professional therapies, using self-help materials, or both constitutes the cornerstone of the permanent disposal of these symptoms.

What do the traumatized people need?

Traumatized people should get proper help to cope with trauma; this help is usually offered, especially in Iraq, by professional therapists such as psychiatrists, psychologists, and other mental health workers. This treatment takes place either in hospitals or private clinics. Due to a number of reasons, most important of which is the shortage of these professionals in Iraq, and the high costs of treatment as well as some irrational attitudes towards psychological treatment; most people in Iraq are not able to get suitable help. Consequently, self-help techniques are good alternatives. People around the world widely use self-help materials to help them solve the problems that they may experience during their lifetime.

What are the formats of self-help materials?

There are several formats of self-help materials including books, videotapes, audiotapes, and web-based resources. Audiotapes are used, for example, in

learning relaxation approaches. Videotape can be used especially for skills-based learning or, via a documentary style, to show the impact of a problem on others who share it; videos may also present skills in practice. In addition, the written format such as handouts, workbooks, and books either in printed format or via internet is used widely.

The main purpose of self-help books is to help people to help themselves by providing information and improving insight, arousing discussion about problems, presenting new attitudes and new values, and providing solutions to problems. However, in some cases when the person suffers from extreme post traumatic stress symptoms it will should be treated by a professional therapist and in this case self-help books can be used as an adjunct treatment tool.

Can a self-help guide be useful?

You may ask yourself; will I get benefits from this self-help guide? Well, Allah "God" does not change the condition of a person until they change it themselves; so it depends on you, you need to decide to help yourself. In terms of the effectiveness of self-help materials, a significant number of studies have shown the effectiveness of books that help people by developing their coping skills.

This self-help guide is trying to provide answers to questions about traumatic events and their effects and the coping skills. It allows access to the assistance that may not be possible for one reason or another from other sources such as professional therapy. It encourages people to take responsibility for self-

management, work at their own time and pace. It also provides self-assessment which will help people to get a clearer image about their reactions of an incident. Moreover, this guide can help the person to identify early warning signs of distress and to prepare an action plan to cope.

However, some people who use self-help materials might either do not get the benefit they expect. In this case, we strongly recommend that you look for a further help. You connect the counselling unit in the Educational Studies and Psychological Research Centre in University Baghdad, The Jaderiya Campus, near the Students Club.

How this self-help guide has been developed?

The information that is included in the guide has been based on the results of studies about coping and treating post traumatic stress symptoms, the suggestions of Iraqi psychologists and psychiatrists, and other self-help materials used around the world. It has been adapted to be appropriate for the nature of the circumstances and traumatic events experienced by the Iraqi people.

Aims of this self-help guide

Reading this guide does not mean that you have a problem at the moment, but it will be helpful to get good information about such issues at least as a precaution for the future, of course, if you do have problems now then the guide will be particularly helpful. This guide includes sections about traumatic events, post traumatic stress symptoms, and their effects on person and related

factors. In addition, it contains techniques to overcome the traumatic stress through information about effective coping skills. At the end of each section, there may be a short task to review whether information has been understood or may need to reread. You will also be asked to report things that are relevant to yourself.

What does stress mean?

Stress is a normal psychological and physiological response to events that make person feels threatened or upset. Stress can be emerged from two main sources; **life events** and traumatic events. Throughout our lives we will experience many different things, both good and bad. Stressful events are certain situations that are unique or we may not have had previous experience of them and would not know what to do. For example, births, deaths, get married, going to university, getting a job, and moving home. While **traumatic incidents** can be anything that is out of the range of daily events and deeply distress. Many things may have this impact. For example, it could be car bomb, explosion side bombing, kidnapping, fire, a severe accident, a natural disaster, a robbery or burglary, an attack, sexual or physical abuse, witnessing a traumatic event (e.g. a death), or a physical illness. Traumatic events could be a major disaster that involving many people, or an event involving personally you, friends or family members. These events can pose threat to the life of the person or others. Those who experience such events usually feel fear, horror, or helplessness.

This story is of a 32 years Iraqi man. "*One day, about September 2007, I was setting with group of friend outdoor for chatting at 8pm and it was the time of curfew. A black B.M.W came across out of blue and suddenly 4 gunmen with black uniform and head masks to disguise their identity left the car. All of them were holding automatic machineguns; they pointed the rifles toward our heads and advised us to hold still. We did not realise who was the target and what was the aim of this incursion. Then they tried to handcuff one of my friends but he started shouting and run away, in the meanwhile I managed to run away and one of them shot at me but I avoided the bullet and went inside my house and locked the door behind me. Finally the gang successfully kidnapped one of my friends after a long battle but he was released on payment of a ransom. This traumatic event is very painful, I remember at that time my brain stopped thinking, my heart rate went up. Half hour after this incident my brain started remembering the details and I started hallucinating and talking nonsense. My body temperature soared up because my body could not cope with this enormous amount of stress. I took antipyretic injection just to control my body temperature. This is the immediate impact of this event; the aftermath effect is more powerful as I still see nightmares of similar scenarios*."

This story is of a 38 Iraqi woman. *There are so many events that it's hard to say which has the most effect on me, but one that has actually affected me since I was 9 was my uncle being taken by the*

authorities in effect to being accused in belonging to an opposition party. We had been waiting for him since he was taken in 1982 and hoping he was still alive. BUT he was executed that year and we only found that out after the invasion. My uncle was so dear to my heart. I was not allowed to say I had a third uncle during that time, but I was always hoping and dreaming of seeing him one day. But dreams don't always come true

Before we move forward, could you please answer the questions below and then check your answers with the above information?

Assess whether the following statements are **true** or **false**?

a. People who exposed to life events may feel fear or horror.....

b. Armed robbery, attempt to kill, or seeing someone had been exposed to kill or kidnap is an example of traumatic events.....

c. Traumatic events can be experienced by the person itself, their family or close friends.....

Please go to Page **Error! Bookmark not defined.** Section 1 *to check your answers and return back to correct the wrong answers you may*

have.

Now, in case you or a close person has been experienced some stressful events over the last period of your life, could you list some of them which you consider them the most influential you, please?

Traumatic events	Life events
.....	.....
.....	.....
.....	.....
.....	.....
.....	.....

Earthquake, war, violence, killing, kidnapping, displacement, and lose a close person are example of traumatic events. The examples of life events lose a job, getting married, new child, going to school, going to the university, breaking up a relationship, the speed change of fashions.

What happens after exposure to a traumatic event?

Most reactions of people who have experienced a traumatic event will fall mainly into three groups. You may experience some of them aftermath a traumatic incident. Here the three groups as well as other symptoms:

- **Re-experience** of a trauma.
- **Emotional numbness and avoiding** the trauma-related or associated things.
- Feelings of **tension**, **irritable** or **alert** which are more than usual.
- Other common **attached symptoms**

Re-experience of a trauma.

These reactions may include having:

- Unwanted trauma-related images or pictures; often called 'flashbacks'.
- Upsetting dreams about the trauma or other things that could frighten you.
- Strong sensations that the trauma is happening again.
- Very distressed feelings at coming across trauma reminders (e.g. situations, things, or feelings).
- Distressing physical reactions, such as dizziness, heart beating faster, etc. when you face the trauma memories or situations that remind you of it.

Avoiding trauma-related things and numbing

These reactions may include:

- Attempts to avoid feelings, thoughts, and chat about the trauma.
- Avoidance the activities, people, or places that remind of the trauma.
- Inability to remember the things about the trauma.
- Lose interest in life or your usual feelings, or feelings of detachment from others.
- Feeling you will not have a normal future - you may feel as though you live on borrowed time.

Feelings of tense and irritable more than usual: including

- angry or irritable
- Concentration difficulties.
- Sleep problems.
- hyper alert all the time and also easily startled,

Other common attached symptoms

It does not seem a true assumption that exposure to traumatic events leads to a well-defined disorder. Furthermore, it is likely that common disorders such as depression and anxiety could be comorbid with PTSD. It is clear that PTSD is not the only result of exposure to traumatic events. Disorders such as depression, anxiety, and other mental disorders seem more likely to occur in conjunction with PTSD.

For example:

- Anger and irritability
- Guilt, shame, or self-blame
- Substance abuse
- Depression and hopelessness
- Suicidal thoughts and feelings
- Feeling alienated and alone
- Feelings of mistrust and betrayal
- Headaches, stomach problems, chest pain

Do the post traumatic stress symptoms vary depending on onset and duration of them?

We can have three types of disorder depending on onset and duration of the symptoms:

Acute. When the duration of symptoms is less than 3 months.

Chronic. When the symptoms last 3 months or longer.

With Delayed Onset. When the onset of the symptoms is at least 6 months after experiencing a traumatic event.

> **This is a story of a man, 37 years**. *"One of my friends (we were working at the same college) died from a side car bomb. He was just to have his new baby born, and he was very happy and excited about that, and he was also starting his PhD study after 5 years of postponing, at that time he died!! At that time, I did feel that it is not worth doing anything anymore, I was depressed, I did get insomnia, non-willing to go to work anymore and most importantly, I did feel insecure and frightened of getting out. I did leave the country for nearby Jordan after that for a month, to get rest and peace, and to try to forget what is happening in my lovely, bleeding country, Iraq!!*

Again, we just need a brief review to what we have learned about the reactions of trauma.

Match between the following two columns by putting the number of group in front of the symptoms. Please, check your answers with the above information

Symptoms	Group
Lose interest in life or your usual feelings, or feelings of detachment from others…..( ). Concentration difficulties …..( ). Depression and hopelessness ( ) Inability to remember the things about the trauma .( ). Strong sensations that the trauma is happening again..( ). Sleep problems…..( ). Unwanted trauma-related images or pictures ..( ). Headaches, stomach problems, chest pain ..( ).	1-Re-experience of a trauma.
	2- Avoiding trauma-related things and numbing
	3- Feelings of tense and irritable more than usual
	4-Other common attached symptoms of post-traumatic stress disorder
Please go to Page **Error! Bookmark not defined.** Section 2 to check your answers and return back to correct the wrong answers you may have.	

Now, Could you report any symptoms you may have experienced over the last month, please?

Re-experience of a trauma. …… …… …… …… …… ……
Avoiding trauma-related things and numbing …… …… …… …… …… ……
Feelings of tense and irritable more than usual …… …… …… …… …… ……
Other common attached symptoms …… …… …… ……

…… ……

We should not ignore the symptoms if they endure for at least one month and cause clinically significant distress or impairment in occupational, social, educational, or other important areas of functioning. And we should look for a suitable help either in this guide or from other authorised professional therapists.

How can post traumatic reactions affect people?

You might find it useful to look at the list below, which gives examples of how post-traumatic reactions can affect people, and see which of these are similar to how you are feeling.

People may feel:	Do you have feelings like these? Just put (✓) if your answer is YES
Nervous, anxious, frightened, worried.	( )
Feeling something dreadful is going to happen.	( )
Tense, on edge, uptight, unsettled.	( )
Strange, woozy, detached, unreal.	( )
Low in mood, at a loss.	( )
Angry.	( )
Please describe any feelings you may have and they are not mentioned above:	

Also, their bodies can be affected:	Do you have feelings like these? Just put (✓)if your answer is YES
Heart racing and pounding.	( )

Chest feels tight.	( )
Tensing or stiffing muscle.	( )
Tired or exhausted.	( )
Body ache.	( )
Dizzy or light headed.	( )
Panicky.	( )
Stomach churning.	( )
Easily startled.	( )
Feel jumpy or restless.	( )
Have sleep problems/nightmares.	( )
Please describe any feelings you may have experienced and they are not mentioned above:	

Their thinking may be affected in some way:	What about you, Just put (✓)if your answer is YES
Constant worry.	( )
Inability to concentrate.	( )
Experiences of flashbacks – trauma pictures come into your mind.	( )
Think the incident will happen again.	( )
Self-blame for the trauma	
Hard to decide anything.	( )
Feel regret, bitterness or shame.	( )
Anything else; please describe it here:	

They may have some of these common thoughts such as:	Do you have such these thoughts, Just put (✓) if your answer is YES
It was my wrong.	( )
I'll have a heart attack.	( )
I'm controlled by trauma.	( )
It is really hard to cope	( )
Why that happened to me?	( )
I can't see what the lesson is.	( )
Please describe any thoughts you may have and they are not mentioned above:	

They mention that they usually do some of these	Do you do these things,

things:	Just put (✓) if your answer is YES
Can't be relaxed.	( )
Avoiding people.	( )
Avoiding being alone.	( )
Irritable.	( )
Wreck relationship.	( )
Drink or/and smoke more.	( )
Depend heavily on others.	( )
Please describe any things you may do and they are not mentioned above:	

You may want to ask what it means when you answered YES to one, two, or more of the above statements. Does this mean that you have a disorder? In fact, we do not pretend that this guide or other, or even a psychiatrist is able to report that a person has a disorder just by answering some questions that should occur after a period of accurate assessment and diagnosis through using different methods. However, if you feel that you have some of the aforesaid feelings, emotions, things, or action that should not be ignored, especially, if they are lasting for more than month and you should looking for help in this self-help guide (the next sections will show some coping skills), counseling unit in the Psychological Research Centre in Baghdad University or using the contact information which will in the last section of this guide.

Why the traumatic events can have severe worse effects on people?

There are many reasons why trauma can leave such strong impacts on us emotionally and physically.

1. Causing loss of close people such as family members and friends.
2. Causing disability of varying intensity.
3. Occur continuously and repeatedly.
4. Are violent and bloody.
5. Causing the destruction of properties.
6. Causing lose of sources of support and help.
7. Causing lose of children.
8. Rising terror and fear.
9. Are sudden and unexpected.

Now, if there are other reasons for you that are not mentioned above please write them down here;

10._____

11._____

12._____

13._____

14._____

15._____

What do you think the most important reasons behind the worse impacts of trauma? Could you list the most important reasons from the above reasons; please just write down their numbers:

Did your list relate to your own experiences?

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Could you describe why do you think these reasons are the most important, please?

Story of Iraqi man with 33 years*: 2003 war, we used to live near a military camp. The camp was exposed to severe aerial attacks. All of my family members felt extremely horror; especially my youngest brother who*

was in the primary school. In addition, my oldest brother was a cardiac patient; these attacks made his case worse. We had to leave our house in search of a safe place. Those events really affected me psychologically. When I remember those events, I feel a pain and start crying.

It is clear that people who experience traumatic events have vary emotions such as fear, helplessness, or horror. In this story, the horror was the main emotion which led to painful memories. This can predict that this person might have post traumatic stress symptoms in case he doesn't get the appropriate help and cope effectively with the trauma.

How to cope with the traumatic events and their effects?

Cope with traumatic events means how to deal with these events; it includes skills based on strategies which can be used in the stressful situations.

People use a number of common strategies when coping with disasters and traumas. The effectiveness of these strategies varies according to severity of traumatic stress, they can be effective at manageable levels of stress, but at overwhelming or traumatic levels they can become unproductive or detrimental. It is important to monitor our reactions to the traumas and find our own ways to cope with them in a positive way

In this context, the results of studies conducted so far in the world in general and Iraq in particular revealed a number of methods to deal with traumatic events and their effects. For example:

Coping behaviours	Do you do these things, Just put (✓) if your answer is **YES**
Avoid people, places or things that can stimulate the traumatic memories.	
Avoid thinking about the event.	
Accept the event on the grounds that the accident of fate.	
Seeking for help at the clairvoyants.	
Seeking for a professional help; psychiatrist or psychologists.	
Ignore the problem.	
Smoking	
Resort to religion and worship	
Using drugs	
Isolation	
learning about trauma and PTSD	
Workaholic	
Seeking for support from friends and family.	
Violent behaviour.	
talking to other trauma survivors for support	
Angry intimidation of others	
Unhealthy eating.	
Self-blame	
Talking with a friend	
Confront the situation head on	
Using relaxation	

Now, in the light of your above answers, would you please specify to which extent you are doing those things? Please circle the appropriate answer to you.

Act actively and face the stressful situation to solve the problem.	mostly	Sometimes	rarely
Talk to someone when you been stressful.	mostly	Sometimes	rarely
Avoid or distance yourself from problems.	mostly	Sometimes	rarely
Keep difficulties to yourself.	mostly	Sometimes	rarely
Choose strategies with harmful consequences; for example:	mostly	Sometimes	rarely

ignore the problem, drinking, smoking, self-blame, and isolation.			

How do I know that I use the proper methods to deal with distress?

Well, we should know that due to the effects of trauma we are looking to get rid of the distress that arises immediately after exposure to a traumatic event. So, some people may resort to the methods that can reduce distress quickly. These methods may reduce it in the short term, but not in the long-term; they could prevent more permanent change. Actions that may seem immediately helpful but that can cause later problems. Generally, any strategy aimed implicitly to escape from the real coping with the trauma will exacerbate the problem in the future even if we feel comfortable for time being. In other words, the strategies that characterized by avoidance and trying ignore finding the real cognition of the problem can be considered negative such as self-blame, smoking, using drugs, avoid people or thinking about the trauma. While behaviours such as seeking for help at the professional therapies or learning about how to cope with traumatic incidents or seeking for support from others, sharing the experiences with other traumatised people to make sense to the trauma is example for positive coping.

The next section included some of ways of how to cope with trauma to overcome their effects.

Can I help myself to overcome the trauma?

It is essential to realize that your reactions are normal and common responses aftermath a trauma. Moreover, these reactions are not due to personal weakness.

The presented suggestions may help you begin to deal with the posttraumatic reactions. These are some things which may help you:

- Understand of the trauma
- Overcoming tension, anger, and irritability
- coping with flashbacks
- Overcoming avoidance, arousal, and low mood

Understand of trauma

As we said earlier, your natural instinct might be to try not to think or talk about the trauma. However, this can make it difficult to overcome it in the long-term.

- Look at what actually happened and try to find out as much as you can. This will help you to draw a realistic picture of the event. It is an essential step in the path to your recovery.

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- In a case, there are others were exposed to same or similar event, talk to them about their views of events. Talking to helpers from the psycho-social, rescue service, and other victims may help you get a broader view of what happened.

- It could be helpful to think about what happened with others. You may feel that your whole view of the world was changed by the trauma. So, trying to clarify how you now feel and talking with others can help you in this issue. Some people talk to a family member or a friend; others may do this as a part of therapy. In addition, writing down the experiences found to be helpful.

  Do you think these actions can help to understand the experienced traumatic events? Have you used them before? Please circle your answer.

	Is it helpful?	Have you used it?
Talking to a family member.	YES NO	YES NO
Talking to friends.	YES NO	YES NO
Talking survived people.	YES NO	YES NO
Looking for information through books and media	YES NO	YES NO
Talking to professional therapist.	YES NO	YES NO

Do you think there is more action can be done to help make sense of trauma?

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Could you please write here and in detail as much as possible about an event that happened to you; and you felt it was very impressive to you. Write about the event itself, when, where, what happened, who was involved in the incident, how did you and others behave, what were your feelings. Please write down in detail as much as possible and try to focus on your feelings at that time?

Overcoming irritability, tension, and anger

Irritability, tension, and anger are common aspects of posttraumatic reactions as well as physical symptoms including breathlessness, over-breathing, heart racing, and muscle tension, and dizziness.

To reduce physical symptoms, try the following ways.

"Nip them in the bud" by reducing the severity of physical symptoms and that could be done via identifying the early signs of tension. Once you have done that, you then use **relaxation techniques** to be able to prevent anxiety becoming too severe**.** Some people can relax through praying, exercise, watching TV, listening to music, and/or reading a book. In addition, an important source of relaxation is reading the holy Quran or any a holy book depending on your religion.

It is very helpful to have a set of exercises to follow.

Relaxation

Relaxation is a skill that can be learned, and takes time. In the following exercise, you can learn how to do deep muscle relaxation. It is very helpful in reducing overall levels of anxiety and tension, as many people have found. In case you have physical difficulties, do not worry, you can adapt these exercises. Or, you may select easy parts for you to do.

Deep muscle relaxation – please**, first of all,** read the instructions carefully to learn them. It is important; apply them daily and when experiencing stressful

situations. In the beginning, select a quiet and comfortable place where you would not be disturbed. In addition to the place, it is important to choose a suitable time of day to begin when you feel most relaxed. Lie down, get comfortable, and close your eyes.

- *Concentrate on your breathing for a few minutes, breathing slowly and calmly: in, two-three and out, two-three. Say to yourself as you breathe out the words: "calm" or "relax".*

In the relaxation exercise, you are taken through different muscle groups. Firstly, teaching you tense, then relax. When tensing; you should breathe in and when you relax; breathe out.

- *Start with your hands, clench one tightly. Now, think about the tension that has been produced in the muscles of your forearm and hand. Meditate the tension for a few seconds, and then relax your hand. You have noticed the difference between the tension and the relaxation, haven't you?*

You might have feelings of a slight tingling; this is a good indication, the relaxation is beginning to develop.

• *Do the same with the other hand.*

Every time, you relax a group of muscles, think how they feel when they're relaxed. Do not try to relax, just let go of the tension. Importantly, let your muscles to relax as much as you can.

Now do the same for the other muscles of your body. Each time firstly tense them for a few seconds and then relax. Study the way they feel, and then let go of the tension in them.

Now work through other muscle groups:

- **Hands***: clench firs, and then relax.*
- **Arms**: *bend your elbows to tense your arms. Feel the tension, especially, in your upper arms.*

Remember, do these for a few seconds, and then relax.

- **Neck***: press your head back and slowly roll it from side to side. Feel how the tension moving. Later, bring your head forward into a comfortable position.*
- **Face***: it has several muscles here, but it is enough to think about your jaw and forehead. Firstly, lower your eyebrows in a frown and then relax your forehead. You can also raise your eyebrows, and then relax. Now, clench your jaw, and notice the difference when you relax.*
- **Chest***: take a deep breath, and hold it for a few seconds, notice the tension, and then relax. Let your breathing back to normal.*
- **Stomach***: tense your stomach muscles as tightly as you can and then relax.*
- **Buttocks***: squeeze your buttocks together, and then relax.*

- **Legs***: straighten your legs and, at the same time, bend your feet towards your face. Then, finish by wiggling your toes.*

You may find it helpful to ask a family member or a friend to read the instructions to you. Remember; don't try too hard, just letting it happen.

It is essential; to make the best use of relaxation you need to:

- *Practice daily.*
- *Start to use relaxation in everyday situations.*
- *Learn to relax without having to tense muscles.*
- *Use parts of the relaxation to help in stressful situations, e.g. breathing slowly.*
- *Develop a more relaxed lifestyle.*

Other 'on-the-spot' **relaxation techniques;** Following some examples of other 'quick' relaxation techniques. These can be used on the spot:

- **The wave**: *starting at the top of your head, imagine a continuous wave of relaxation rolling down your body ... feel it releasing tension as it descends ... relaxing each part of your body in turn, until it reaches the tips of your toes. Try slowly breathing out at the same time as the wave.*
- **Breathing**: *Breathe in to a slow count of 3, and then out to the count of 3. In .. 2 ...3, out ... 2 ... 3.*

- **Words**: *think the word 'relax' or something similar when you breathe in and out. Say things to yourself like: "I am calm", "I am relaxed", "I can cope".*
- **Imagine**: *a smile, sight, a favorite smell, color or sound.*

Controlled Breathing

When a person becomes anxious, irritable, or angry; over-breathing is very common. This means that you may have changes in your breathing. You can begin to gulp air, or breathe more quickly. Thinking that you are going to suffocate. This means you can end up with an imbalance of oxygen and carbon dioxide in your blood. This has the effect of making you feel dizzy and hence more anxious. It is not dangerous, but this may feel frightening.

You can obtain relaxation videos from internet; please visit these websites

- http://www.relaxation-at-home.com
- **Error! Hyperlink reference not valid.** and search relaxation Techniques or relaxation exercises
- http://www.tbeeb.net/a-989.htm

Anger

It could be worth talking over your feelings of anger with your close people, such as family members or friends. It is necessary to clarify for them that your anger is not really directed at them. But sometimes be 'taken out' on them. Tell them know that your anger is because of what you have experienced and ask for their patience until the irritability and anger passes. Ask them not to 'take it personally'.

Immediate strategies for coping with angry feelings -

- ✓ Seeking refuge with Allah (God) from Satan.
- ✓ Leaving the place that you are in and then come back.
- ✓ Washing your face with water.
- ✓ Praying.
- ✓ Breathing deeply.
- ✓ Fast walking, aerobics, or running etc.
- ✓ Screw your face up a few times and feel the muscles relax.
- ✓ You may also try screaming and shouting abuse at an empty chair.

Coping with flashbacks and nightmares

It may think that the best thing to do; is not to think or talk about the experience of trauma. Many people try to do this**.** This may seem a natural thing to do, however, it does not always help people to overcome the problem. People may being continuously troubled by trauma-related intrusive unwanted pictures in their mind (flashbacks) and by unpleasant dreams or nightmares of trauma as well.

Now, let us go to check your intrusive, re-experiencing reactions

Let's rate the recurrence of re-experiencing and the extent of the upsetting caused.

For each question, rate how frequently you have had each of the experiences over the last four weeks, use the following 0-3 scale.

0 Not at all	1 Once a week/ a little bit/ once in a while	2 2-4 times per week/ somewhat/ half the time	4 5 times per week/ very much/ almost always

To rate how upsetting each of the experiences has been in the past four weeks, use the following 0-3 scale.

0 Not at all upsetting	1 Quite upsetting	2 Very upsetting	4 Extremely upsetting

Please circle the appropriate scores for each question.

	How frequently?				How upsetting has this been?			
Have thought or image (including smells or sounds) about your traumatic experience intruded into your mind at times when did not want them to?	0	1	2	3	0	1	2	3
Have you experienced disturbing dreams or nightmares about your traumatic experience?	0	1	2	3	0	1	2	3
Have you had flashbacks or feeling that you are acting a part or the sense that the trauma is happing all over again?	0	1	2	3	0	1	2	3
Have you become very unsettled emotionally when reminded of your traumatic experience (very sad, tearful, angry, fearful, anxious, etc.)?	0	1	2	3	0	1	2	3
Have you noticed uncomfortable physical reactions (for example, headaches, breaking out in sweat , heart beating fast, unable to catch your breath) when you were reminded of your traumatic experience?	0	1	2	3	0	1	2	3
Please sum the scores which you have already circled	Your total score for frequency is: ( )				Your total score for upsetting is: ( )			

Now, compute your total score by summing the two scores of frequency and upsetting:

Frequency score ( ) + Upsetting score ( ) = ( )

Please use the table below to assess your total score

If your total score is:	5 or below = re-experience is low
	5-10 =re-experience falls into the mid-range
	10 or more = re-experience is high

After having your reaction scores, you should begin to try to reduce both the frequency and upsetting level of these. It is important to mention that in a case of the high level of re-experience it would be useful to looking for professional help (for information about the professional help please see page **Error! Bookmark not defined.**).

- It was found that one of the best approaches to reduce flashbacks and nightmares is to make time every day for reviewing and going over the unpleasant nightmares or memories. Many people have found that their unwanted flashbacks and nightmares will gradually become less frequent and less powerful; if they put 20 minutes aside **calmly** to think or talk over or jot down notes on the trauma.

This technique can help you to regain some control over these thoughts to stop intruding upon you. Importantly, try and remember to focus on some of the **positive parts of your current situation** when you are looking back over the trauma you have experienced.

You can try the following approaches:

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- Write down details of the nightmares and/or flashbacks, you may experience.

- Find a safe calm environment and a time of day when you could think over what you have experienced.
- Think of some positive things about your present situation: for example, "I have family and good friends to support me ", "I survived it and I'm still here ", "I can now begin to plan for a new future ", or “my family still with me” etc.

Now, please read the story below:

> *Kareem with his family was invited to have dinner in his brother’s home. To avoid traffic jams he decided to leave his new car and take a taxi. After ending the invitation and spent funny time in the house of his brother returned pack with his family to their house. The surprise was that their house had been exploded and completely destroyed, as well as his car and all the contents of the House. They found themselves suddenly homeless. Home, car and other properties*

that he worked so hard to get them, had been lost in blink of an eye.

We think that we can find positive things in this situation; his family is still okay, the things which were lost can be got again as long as he still with his family.

Do you think there are more positive things that can be viewed in this situation?

I think.....
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The positive changes after trauma are possible

Although traumatized people show stress-related symptoms, it is very interesting to know that a percentage of them show positive changes eventually on their way of recovery.

The following positive changes can be achieved:

- Self-confidence
- Enhanced acceptance of negative emotional experiences and one's vulnerability.
- Better relationships with significant others

- Increased empathy and compassion for others
- Greater efforts directed to improve relationships
- Maximised appreciation of own existence
- Higher appreciation for life
- Positive developments in one's priorities
- Stronger religious or spiritual beliefs
- Greater personal intimacy with Allah (the God)
- Increased sense of control and security through belief in God
- Better meaning about life and suffering through religion

How these positive changes can be achieved?

The first and most important thing to do is to embark the journey of recovery; with these pathways:

(1) Acceptance

You choose to accept that these events are out of your control, and you are not the only person in Iraq has experienced these events. Accepting that the situations that you experienced were really difficult and could be worse and also, accepting that suffering is necessary gaining valuable knowledge.

(2) Affirmation

You have accepted that your life experiences were difficult, and the world seems to be dangerous. However, there is goodness in life, and there is meaning and purpose in suffering. All the prophets had suffered so much; so suffering doesn't mean weakness in the personality.

Your choice to take a positive stance is the only way out of the dark pit. The alternative to affirmation is self-destruction. You affirm meaning; there is no future without believing that something is worth and important to live for. For example, graduation, having a new job, having a family.

By affirming life, you start to appreciate all the little things you used to take for granted. Of course, it is exciting to be alive and it is worth to fight for. Work for your live as you will live forever.

(3) Determination

Once you choose to embark on the road of recovery, you know that making progress will require perseverance and determination. You also know that nothing is easy, and there will be obstacles, opposition, and even dangers, as long as you have started your quest for authenticity and meaning. Yes, you are prepared to persist with tenacity and courage. Even if it may be hard to arrive at the Promised Land: the ability to strive towards a worthy goal is sufficient in itself to fill your heart with deep satisfaction.

(4) Confidence

You may have been feeling powerless and helpless. You would have been saying, "I can't do anything anymore. I’m finished, nothing left in me”.

However, with affirmation and determination, you can gradually regain your confidence. Every small victory will grow your confidence. Now, say to yourself: "If I can survive this, then I can survive anything else. I know the obstacles are still there. The difficulties are formidable but not insuperable. Yes, I CAN overcome with God's help and support from my family and my friends."

Your confidence is no longer only based on your own abilities. Paradoxically, by accepting your vulnerability and that you have experienced traumatic events that were

out the control of any normal person, you have regained a sense of confidence and control.

(5) Religious faith

Do you believe that the difficult situations that we are experiencing are a part of a test by Allah (the God) for our faith and patience on the catastrophe? Do you believe that Allah protects those who approached him and those who believed in? So, you can come to the realization that Allah is with you, and listen to your prayers. You can rebuild your life on a solid rock of faith.

(6) Relationships

You were preoccupied with your own needs. You had feelings of sorry for yourself. But now, your eyes are open to all those who suffer more than you do. You begin to seek out opportunities to help others. You discover that in helping others, you find recovery for yourself.

Your priorities have been changed. Now, your family and friends become more important than your personal achievements. Their support and care have nurtured you back to health. Now, you learn to appreciate and enjoy them in a way unknown to you before the traumatic event. You have grown in relationships as a result of the trauma.

(7) Optimism

At long last, you can hope again. Born of adversity, your hope will be able to endure anything that may come your way. You can now talk about your future with excitement, even though you know that danger may be lurking just around the corner. Your tragic sense of life is now married to a positive outlook in life, resulting in a mature tragic optimism.

Now, could you please write about the positive things that you gained during experiencing the traumatic events?

Overcome avoidance

Avoidance following experiencing a traumatic event can take various forms. It can involve avoiding talking about the event or avoiding becoming upset about the trauma. It can also be that you avoid things, people, places or any situation that reminds you of the trauma. This avoidance prevents you from "moving on" from the trauma and rebuilding your life.

Now, let us go to check your avoidance reactions . Let's rate the recurrence of avoidance behaviour and the extent of the upsetting caused.

For each question, rate how frequently you have had each of the experiences over the last four weeks, use the following 0-3 scale.

0	1	2	4
Not at all	Once a week/ a little bit/ once in a while	2-4 times per week/ somewhat/ half the time	5 times per week/ very much/ almost always

To rate how upsetting each of the experiences has been in the past four weeks, use the following 0-3 scale.

0 Not at all upsetting	1 Quite upsetting	2 Very upsetting	4 Extremely upsetting

Please circle the appropriate scores for each question.

	How frequently?				How upsetting has this been?			
Have you tried to push out of your mind any thoughts, pictures, or feelings that reminded you of your traumatic experiences?	0	1	2	3	0	1	2	3
Have you not done or stayed away from activities, situations, or places which reminded you of your traumatic experiences (including conversations with others)?	0	1	2	3	0	1	2	3
Have been there any important aspects of your traumatic experiences that you have tried to remember but have been unable to?	0	1	2	3	0	1	2	3
Have you been less motivated or interested or just couldn't be bothered to do things or activities that you used to enjoy?	0	1	2	3	0	1	2	3
Have you felt cut off and detached from people in your surroundings?	0	1	2	3	0	1	2	3
Have you experienced yourself as emotionally shut-down or numb or been unable to respond emotionally when you knew you should, for example losing your sense of humor, being unable to respond to affection or to the feelings of others, etc.?	0	1	2	3	0	1	2	3
Have you been unable to think about yourself as having a future or been unable to make plans or decisions concerning your life?	0	1	2	3	0	1	2	3
Please sum the scores which you have already circled	Your total score for frequency is: ( )				Your total score for upsetting is: ( )			

Now, compute your total score by summing the two scores of frequency and upsetting:

Frequency score ( ) + Upsetting score ( ) = ( )

Please use the table below to assess your total score

If your total score is:	7 or below = avoidance is low
	7-14 =avoidance falls into the mid-range
	14 or more = avoidance is high

After having your reaction scores, you should begin to try to reduce both the frequency and upsetting level of these. It is important to mention that in a case of the high level of avoidance it would be useful to looking for professional help (for information about the professional help please see page **Error! Bookmark not defined.**).

Set yourself very small goals to confront these fears. This is called an 'anxiety ladder', where those situations that we only fear a little are at the bottom and the worst feared situations are at the top.

It may help to look at this example:

“Raad” had lost his brother and his two nephews in a suicide bombing in their workplace (a restaurant in the middle of Baghdad). He started to avoid such place, as well as any other restaurant, especially these offer the same food and cuisine. Also he avoided going through the area when the incident happened. He was advised to make a list of places, things, and situation that he avoid frequently and then sort them from the less upsetting to the high upsetting to him.

1- Trying foods and cuisine. Least upset

2-Visiting other restaurants

3-Going through the area where the incident happened.

4-Visiting the restaurant itself. Most upsetting

He began with the first step and used to repeat many times until he feels no more anxiety and gradually work towards the last step. He found difficult to start but at the end his anxiety started to be less and at the same time he started to overcome his avoidance.

Now, could you describe an event you had experienced and you still avoid the things related to it.

List the things which you avoid from the less to the high

upsetting:

Could you draw a step by step plan to start get rid of avoidance?:

Now, could you describe an event you had experienced and you still avoid the things related to it.

Remember you may feel anxious at first, but if you are able to stay in the feared situation you will gradually begin to feel calmer.

Overcome the arousal reactions

As we explained earlier, the arousal reactions are a major component of post traumatic symptoms.

You may start to check your arousal reactions

Let's rate the recurrence of arousal reactions and the extent of the upsetting caused.

For each question, rate how frequently you have had each of the experiences over the last four weeks, use the following 0-3 scale.

0 Not at all	1 Once a week/ a little bit/ once in a while	2 2-4 times per week/ somewhat/ half the time	4 5 times per week/ very much/ almost always

To rate how upsetting each of the experiences has been in the past four weeks, use the following 0-3 scale.

0 Not at all upsetting	1 Quite upsetting	2 Very upsetting	4 Extremely upsetting

Please circle the appropriate scores for each question.

	How frequently?				How upsetting has this been?			
Have you had poor quality sleep, either finding difficulty falling asleep or staying asleep?	0	1	2	3	0	1	2	3
Have you noticed yourself having flashes of anger or being easily irritated, quick-tempered or argumentative?	0	1	2	3	0	1	2	3
Have you experienced poor concentration or problems with your memory, such as forgetting things, losing your bearings, having difficulties reading or listening to	0	1	2	3	0	1	2	3

conversations?								
Have you been overly watchful or experienced a heightened concern for the safety of yourself or others?	0	1	2	3	0	1	2	3
Have you felt more on edge, very jumpy or easily startled?	0	1	2	3	0	1	2	3
Please sum the scores which you have already circled	Your total score for frequency is: ( )				Your total score for upsetting is: ( )			

Now, compute your total score by summing the two scores of frequency and upsetting:

Frequency score ( ) + Upsetting score ( ) = ( )

Please use the table below to assess your total score

If your total score is:	5 or below = arousal is low
	5-10 = arousal falls into the mid-range
	10 or more = arousal is high

After having your reaction scores, you should begin to try to reduce both the frequency and upsetting level of these. It is important to mention that in a case of the high level of arousal it would be useful to looking for professional help (for information about the professional help please see page **Error! Bookmark not defined.**).

Something to do:

Difficulty falling or staying asleep

- Follow a regular bedtime schedule.

- Avoid doing strenuous exercise for the few hours just before going to bed.
- Use your sleeping area for sleeping only.
- Avoid alcohol, tobacco, tea, and coffee. They harm your ability to sleep.
- Do not lie in bed and thinking or worrying. Get up and enjoy something pleasant or soothing; drink a glass of warm milk, read a calming book, or do a quiet hobby.

Difficulty concentrating

- Slow down. Give yourself time to focus on what you need to learn or do.
- Write things down. Making “to do lists” may be helpful.
- Break tasks, either university task other life tasks, down into small do-able chunks.
- Plan a realistic number of events or tasks for each day.
- Do not postponed your work to do it later; try to do it on time
- You may be depressed; many people who are depressed have trouble concentrating. Again, this is something you can discuss with your counselor, doctor, or someone close to you.

Having difficulty expressing or feeling positive emotions

- Remember, this is a common reaction to trauma. You are not doing this on purpose, and also you should not feel guilty for something; you do not want to happen and can’t control.
- Participate regularly in activities that you enjoy or even used to enjoy. Sometimes, these activities can rekindle pleasure feelings.
- Take steps to communicate your caring to close people in little ways: write a card, send email or message, leave a small gift, or phone someone and say hello.

Overcoming low mood

It is common that people experience low mood after a trauma. This can sometimes give rise to feelings of low self-worth, helplessness, reduced confidence, and guilt. It is important to challenge any gloomy or negative thoughts. Following trauma, people tend to think and expect the worst of themselves, their life and the future. Don't just accept these thoughts.

Try to:

- Identify when your mood is very low.

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Write down the unpleasant thoughts you are having during that time.

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- Try and counter these thoughts by writing down arguments against them. Imagine what you would say to a family member or a friend if they had such negative thoughts about themselves. This is particularly important if you are feeling guilt.

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It may help to keep a diary of things you have enjoyed or achieved during the week. This can help you to concentrate on the good things rather than the bad things in your life.

Do something

- If you are physically able, activity can be particularly helpful. Walk, run, cycle, skip, swim; anything which begins to increase your activity can help to improve how you feel. Plan IS or 20 minutes of activity every day, or every other day to begin with. This kind of physical

activity can actually begin to make you feel less tired, and can lift your mood.

- Other activities do not depend so much on physical ability. You might find it helpful to find something that interests you and spend some time on it. Plan to focus on things you usually enjoy and build some time into each day for these activities. You might find it helpful to take up a new interest. Some people find that creative activities that help them to express their feelings such as painting, writing poetry or playing music, can help them to feel better.

Look after yourself

- Try to eat well and look after yourself. A good diet can help to keep you in good health so recovery is easier.
- Try and 'treat' yourself to things you enjoy. Try and stimulate your five senses in a positive way. This can help to lift your mood.
- It is often unhelpful to cope with your low mood by drinking alcohol, misusing medication or turning to illegal drugs. These may give some immediate relief but quite soon create further health and psychological problems for you to cope with.

How can your people help to overcome the trauma?

As you know, according the customs, traditions, and the religious values in the Iraqi society, offering the help and showing support to people who exposed to traumas are imperative. Supportive people are a primary resource for healing after traumatic experiences. Social support can be considered as “firewall” against the harmful effects

of exposure to traumatic events. Because of the traumatic incidents widely spread among Iraqi people, the suffering from stress resulted from traumas is understandable and your feelings will not be unaccustomed. However, not all people are able to offer you the needed support; either because they don't have appropriate knowledge about how to help traumatized people or their huge suffering prevents that. But that is not a problem at all; you should show them that you understand that they won't be able to take away your pain, but you need someone to listen to you, without offering advice.

In addition, it is important that you look for any organisation either governmental or nongovernmental that present support and help for traumatised people. outpatient clinics psychiatric clinics present professional therapy especially if you feel that you cannot alone deal with your symptoms.

Have you received the support that you expected? YES NO

If **YES**, Would you please report here the sort of support that you received from close people?

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Family

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Governmental or non-governmental organizations:
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How this support helped you and what is the most helpful source for you?
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If **NO** (you did not receive the support that you expected), how do you feel about that?
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Could you please list any ideas you have about how to you could find more support for yourself or maintain connections with other people?
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You may withdraw from some relationships. You may feel a loss of connection or intimacy in some relationships, even those that you maintain. It is OK to protect yourself from relationships that feel hurtful. We suggest that you try to talk to a friend or family member about your struggle with that relationship before pulling away. It is recommended that you talk to a counsellor in your college or in counselling unit in Educational Studies and Psychological Research Centre (Baghdad University, AlJaderiya Campus).

If you can, try to keep up the connections you have with others whatever ways feel comfortable or manageable, whether it's a phone call, an email, or going to the social meetings such as weddings and other occasions.

Here some things you can do for yourself and the other person.

1. Having a loved person exposed to a threat of physical harm or death can itself be experienced as a trauma. You will have your own reactions to hearing about or seeing what your loved one survived. *Take care of yourself* or you will not be of any help to him. Get support for yourself from others, *not* from the survivor. It will be important for you to keep in touch with your own other friends, family members, or supportive people.

2. Get as much information as you can about trauma and its impacts. This guide provides appropriate information also you will find the list of other resources at the end of this guide for further information. Read or talk to a professional person of traumatic stress to gain a better understanding of the survivor's reactions.
3. Every one's responses to trauma are different and every one's needs following trauma are different too. So, ask the survivor what you can do to be helpful and then really try to do it. Try not to assume that you know better than they do what they need. For yourself, try to tell your people what you need and how can they help you.
4. Don't try to fix the person's problems, or make the feelings go away. The survivor is likely to think you are uncomfortable and cannot tolerate his struggle. He may conceal his feelings, which may simply create more distance in your relationship.
5. Help the survivor and yourself to find other support sources such as other people who exposed to similar traumas.
6. Worship can help a lot in dealing with the traumatic events which people are exposed.
7. Whenever you can, *just listen.*
8. Try to be patient, healing from trauma occurs over time and takes time.

A final word

We hope you will find this guide helpful. In order to get the maximum benefit, it is best to continue the exercises described here over a period of several weeks, as problems usually take some time to overcome. These approaches can be beneficial for people just if they persist. You are learning new, healthy

habits which will stand you in good stead for the future. It is a good idea to keep this guide handy so that you can keep referring to it from time to time. If, after a few weeks, you feel you are making little progress, then seek help in overcoming your problem; in the next section you find contact information of professional help.

It seems that you have arrived the end of the journey in this guide; it is important to reassess the symptoms by the same way you used in the early sections of the guide.

- Re-experiencing symptoms:

For each question, rate how frequently you have had each of the experiences over the last four weeks, use the following 0-3 scale.

0 Not at all	1 Once a week/ a little bit/ once in a while	2 2-4 times per week/ somewhat/ half the time	4 5 times per week/ very much/ almost always

To rate how upsetting each of the experiences has been in the past four weeks, use the following 0-3 scale.

0 Not at all upsetting	1 Quite upsetting	2 Very upsetting	4 Extremely upsetting

Please circle the appropriate scores for each question.

	How frequently?				How upsetting has this been?			
Have thought or image (including smells or sounds) about your traumatic experience intruded into your mind at times when did not want them to?	0	1	2	3	0	1	2	3
Have you experienced disturbing dreams or	0	1	2	3	0	1	2	3

nightmares about your traumatic experience?								
Have you had flashbacks or feeling that you are acting a part or the sense that the trauma is happing all over again?	0	1	2	3	0	1	2	3
Have you become very unsettled emotionally when reminded of your traumatic experience (very sad, tearful, angry, fearful, anxious, etc.)?	0	1	2	3	0	1	2	3
Have you noticed uncomfortable physical reactions (for example, headaches, breaking out in sweat , heart beating fast, unable to catch your breath) when you were reminded of your traumatic experience?	0	1	2	3	0	1	2	3
Please sum the scores which you have already circled	Your total score for frequency is: ( )				Your total score for upsetting is: ( )			

Now, compute your total score by summing the two scores of frequency and upsetting:

Frequency score ( ) + Upsetting score ( ) = ( )

Please use the table below to assess your total score

If your total score is:	5 or below = avoidance is low
	5-10 =re-experience falls into the mid-range
	10 or more = re-experience is high

- **Avoidance Symptoms:**

For each question, rate how frequently you have had each of the experiences over the last four weeks, use the following 0-3 scale.

0	1	2	4
Not at all	Once a week/ a little bit/ once in a while	2-4 times per week/ somewhat/ half the time	5 times per week/ very much/ almost always

To rate how upsetting each of the experiences has been in the past four weeks, use the following 0-3 scale.

0	1	2	4
Not at all upsetting	Quite upsetting	Very upsetting	Extremely upsetting

Please circle the appropriate scores for each question.

	How frequently?				How upsetting has this been?			
Have you tried to push out of your mind any thoughts, pictures, or feelings that reminded you of your traumatic experiences?	0	1	2	3	0	1	2	3
Have you not done or stayed away from activities, situations, or places which reminded you of your traumatic experiences (including conversations with others)?	0	1	2	3	0	1	2	3
Have been there any important aspects of your traumatic experiences that you have tried to remember but have been unable to?	0	1	2	3	0	1	2	3
Have you been less motivated or interested or just couldn't be bothered to do things or activities that you used to enjoy?	0	1	2	3	0	1	2	3
Have you felt cut off and detached from people in your surroundings?	0	1	2	3	0	1	2	3
Have you experienced yourself as emotionally shut-down or numb or been unable to respond emotionally when you knew you should, for example losing your sense of humor, being unable to respond to affection or to the feelings of others, etc.?	0	1	2	3	0	1	2	3
Have you been unable to think about yourself as having a future or been unable to make plans or decisions concerning your life?	0	1	2	3	0	1	2	3
Please sum the scores which you have already circled	Your total score for frequency is: ( )				Your total score for upsetting is: ( )			

Now, compute your total score by summing the two scores of frequency and upsetting:

Frequency score ( ) + Upsetting score ( ) = ( )

Please use the table below to assess your total score

If your total score is:	7 or below = avoidance is low
	7-14 =avoidance falls into the mid-range
	14 or more = avoidance is high

- **Hyper Arousal reactions:**

For each question, rate how frequently you have had each of the experiences over the last four weeks, use the following 0-3 scale.

0 Not at all	1 Once a week/ a little bit/ once in a while	2 2-4 times per week/ somewhat/ half the time	4 5 times per week/ very much/ almost always

To rate how upsetting each of the experiences has been in the past four weeks, use the following 0-3 scale.

0 Not at all upsetting	1 Quite upsetting	2 Very upsetting	4 Extremely upsetting

Please circle the appropriate scores for each question.

	How frequently?	How upsetting has this been?

Have you had poor quality sleep, either finding difficulty falling asleep or staying asleep?	0	1	2	3	0	1	2	3
Have you noticed yourself having flashes of anger or being easily irritated, quick-tempered or argumentative?	0	1	2	3	0	1	2	3
Have you experienced poor concentration or problems with your memory, such as forgetting things, losing your bearings, having difficulties reading or listening to conversations?	0	1	2	3	0	1	2	3
Have you been overly watchful or experienced a heightened concern for the safety of yourself or others?	0	1	2	3	0	1	2	3
Have you felt more on edge, very jumpy or easily startled?	0	1	2	3	0	1	2	3
Please sum the scores which you have already circled	Your total score for frequency is: ( )				Your total score for upsetting is: ( )			

Now, compute your total score by summing the two scores of frequency and upsetting:

Frequency score ( ) + Upsetting score ( ) = ( )

Please use the table below to assess your total score

If your total score is:	5 or below = arousal is low
	5-10 = arousal falls into the mid-range
	10 or more = arousal is high

Now, make comparisons between the scores in the three categories

Categories 1st assessment 2nd assessment

Re-experience symptoms page (**Error! Bookmark not defined.**) =_____

and page (**Error! Bookmark not defined.**) =_____

Avoidance symptoms page (**Error! Bookmark not defined.**) =_____

and page (**Error! Bookmark not defined.**) =_____

Hyper arousal symptoms page (**Error! Bookmark not defined.**) =_____

and page (**Error! Bookmark not defined.**) =_____

What do you think? Are the symptoms lower in the 2nd assessment than 1st?

If you think that symptoms still high and distress you, then you can look for further help from other resources. It is important to continuo use the guide even when you are looking for a further help.

Resources for further help and information:

1- The Iraqi Association of psychiatry.

2- Iraqi Medical Association http://www.iimaonline.net/

3- Ibn Rushed Hospital, Baghdad, AlNedhal Street.

4- Educational Studies and Psychological Research Centre http://www.esprc.uobaghdad.edu.iq

5- Arab Psychological Sciences Network

http://www.arabpsynet.com/defaultAr.ASP

6- Interdisciplinary Psychology http://www.psyinterdisc.com/

References:

1. Herbert, C. (2007). Understanding Your Reactions to Trauma: A Guide For Survivors of Trauma and Their Families (3rd ed.). Witney: Blue Stallion Publications.
2. Herbert, C., & Wetmore, A. (1999). Overcoming Traumatic Stress: Self-Help Guide Using Cognitive Behavioral Techniques (1st ed.). London: Robinson.
3. Herbert, C., & Wetmore, A. (2008). Overcoming Traumatic Stress: Self-Help Guide Using Cognitive Behavioral Techniques (2nd ed.). London: Robinson.
4. Levine, P. A., & Frederick, A. (1997). Waking the Triger - Healing Trauma. California: North Atlantic Books.
5. Matsakis, A. (1996). I can't get over it, a handbook for trauma survivors (2nd ed.). Oakland: New Harbinger Publications, Inc.
6. NHS, N. M. H. N. T. (2008). Post Traumatic Stress, a self-help guide Retrieved 12/1/2009, from http://www.lanarkshirementalhealth.org.uk/Resources/posttrauma.pdf
7. Rosenbloom, D., Williams, M. B., & Watkins, B. (1999). Life after trauma, a workbook for healing. London: The Guilford Press.
8. Scott, M. J. (2008). Moving On After Trauma. London and New York: Routledge.
9. Williams, M. B. (2002). The PTSD workbook: simple, effective techniques for overcoming traumatic stress symptoms. Oakland, Calif.: New Harbinger Publications.

10. USDVA, U. S. D. o. V. A. (2009). National Center for PTSD Retrieved 06/10/2009, from http://www.ptsd.va.gov/index.asp
11. Tedeschi, R. & Calhoun, L. (1995). Trauma & Transformation. CA: Sage Publications.
12. Wong, P. T. P. (2003). Pathways to posttraumatic growth Retrieved 6/2/2010, fromhttp://www.meaning.ca/archives/presidents_columns/pres_col_may_2003_post-traumatic-growth.htm

The Answers

Section 1

1- False 2-True 3-True

Section 2

A-(2) B-(3) C-(4) D-(2) E-(1) F-(3) G-(1) H-(4)