Why are some individuals more resilient than others: the dynamic role of social support and religious coping in Predicting PTSD and Psychiatric Distress as a Result of Mass Trauma

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Abstract:

There has been little reported research into the effect of mass trauma and the dynamic role of coping strategies among young adults in Iraq. This study investigated the prevalence of post-traumatic stress disorder (PTSD) and psychiatric distress. It also examined the role of social support and religious coping strategies in predicting identified mental health outcomes. A total of 208 Iraqi students with a mean age of 20.26 years were sampled, and were assessed using the PTSD inventory, General Health Questionnaire (GHQ-28), The Crisis Social Support (CSS), and the Brief Arab Religious Coping Scale (BARCS). The results showed that 68.7% of the participants reported symptoms consisted with a diagnosed of current probable PTSD related to the attack, and 87.9% scored at or above the cut-off point of 4, thus fulfilling the criteria for psychiatric distress. For the cross-sectional analysis, the presence of PTSD and psychiatric distress were predicted significantly by level of exposure to bombing, low levels of social support and religious coping. These findings underscore the role of interpersonal resources in the psychological sequelae of exposure to a continuous, life-threatening situation by highlighting the significant role played by perceived social support and religious beliefs among individuals exposed to bombing attacks. The clinical and research implications of the findings are discussed.

Introduction

Reactions of people who have been exposed to mass trauma (e.g. acts of terror and bombing attack) have been reported in several studies (Pfefferbaum et al., 2000; Luce et al., 2002; Njenga et al., 2004; North et al., 2011). However no studies have been directly conducted among Iraqi civilians. In addition, few studies have examined the role of perceived social support and religious coping strategies in relation to terrorist bombing attacks and its subsequent impact on emotions and risk outcomes among students. The present study seeks to address these limitations in the extant literature by examining (a) whether PTSD symptoms and psychiatric disorders are associated with intensity of exposure to bombing, (b) whether levels of PTSD symptoms and psychiatric disorders are associated with interpersonal resources (i.e. perceived social support and religious coping), and (c) whether interpersonal resources predict PTSD symptoms and psychiatric disorders.

Exposure to bombing may place civilians at risk for short- and long-term mental health problems and is likely to mobilize internal and external resources for coping with stress. Conservation of resources theory (Hobfoll, 1991) proposes that a sudden loss of or threat to critical resources results in a stress response aimed at guarding or regaining these resources. In addition to this main role in the prediction of trauma, the loss of resources has been found to play a mediating role in the relation between trauma exposure and differential reactions, such as general distress and physical symptoms. Interpersonal resources are essential in stress responses. Among these resources, social support and religious coping strategies have received significant attention in trauma and stress coping research.

The importance of perceived of social support is reflected in many studies (e.g. Tucker et al., 2000; Páez et al., 2007; Shahar et al., 2009; Stevens et al., 2013). The extant literature on perceived social support suggests that perceived social support is a primary interpersonal resource that is critical for coping with stress (Haber, Cohen, Lucas, & Baltes, 2007; Lin & Margolin, 2014) and has been associated with psychological well-being in times of stress (Norris & Kaniasty, 1996; Wesley, Zelikovsky, & Schwartz; 2013). It was also postulated that perceived social support mediates the links between stressful life events and psychological consequences, such as anxiety, depression, and behavioral distress (Russell & Cutrona, 1991). Results in the literature also have found that a person's perception of the availability of others as a resource, rather than actual support received, plays important roles in the prediction of coping effectiveness, well-being, and psychological and physical health (Dolbier & Steinhardt, 2000). Perceived social support is generally considered to be a protective factor for individuals following terrorist bombing attack (Tucker et al., 2000). People who maintain supportive social relationships are more resilient in the face of life-threatening conditions and able to reconstruct a positive emotional climate in the aftermath of a terror bombing (Galea et al., 2002; Shalev, Tuval-Mashiach, & Hadar, 2004). Higher levels of perceived social support have also been linked to resilience and recovery with respect to PTSD (e.g., King, King, Foy, Keane, & Fairbank, 1999). Further, the lack of post-disaster social support was found to contribute to mental health complaints after involving in bombing (Thormar et al., 2010).

Another potential moderator between trauma exposure and distress is religious coping (Giordanoa & Cecil, 2014), which has long been implicated as a protective factor (and occasionally a risk factor) in mental health research. Several studies have found that religious coping

responses are protective and positively impact mental health (Pargament et al., 1998; Pargament, Koenig, & Perez, 2000; Harrison et al., 2001; Ano & Vasconcelles, 2005; Carpenter, Laney, & Mezulis, 2012; Trevino et al., 2014). In a study of people who exposed the July 2005 London bombing, Bux and Coyne (2009) concluded that religious coping was significantly related to psychological adjustment. Religious coping was significantly associated with both increased positive adjustment and decreased negative adjustment in the aftermath of the 9/11 bombing (Meisenhelder, 2002). A number of studies have focused on the relationship between religious coping and PTSD symptoms (North et al., 2005; North et al., 2011; Jensen, Thoresen & Dyb, 2014). In one recent cross-sectional study, for example, Plante and Sherman (2001) found that negative religious coping significantly predicted increased PTSD and psychiatric disorders symptoms, while positive religious coping interacted with stress to predict decreased PTSD and psychiatric distress symptoms resulting from bombing.

The foregoing studies indicated that social support and religious coping strategies have a vital effect on psychological stressors and could influence the development of PTSD symptoms. Hence, the inclusion of social support and religious coping as variables in studies concerning adaptation to terrorist bombing attack is important. Joseph and colleagues (1992) reported that the effect of such coping is even more important when one try to explain why some survivors develop severe or chronic post-traumatic symptomatology while others do not.

Method

Participants

A total of 208 Iraqi undergraduate students who were directly exposed to a bombing attack took place in this study. Participants were recruited from two provinces: Baghdad and Anbar with a mean age of 20.26 years

(SD= 2.22). The sample was distributed almost equally between males and females with 112, 53.8% males and 96, 46.2% females. Just less than 80% of the cohort were single; just under a quarter (21.6%) were married. The minority of the participants were Kurdish, whereas more than 97% were Arab. All the participants were Iraqis and categorised themselves as Muslims. Participants lived in Baghdad and Anbar district. Most of them reported a medium family income on a 3-point scale (from 1= low income to 3= high income).

Measures

Bombing Experience Questionnaire

The researcher developed a self-report questionnaire to collect information about peritraumatic and posttraumatic risk factors associated with the bombing. A list of possible involvement experiences was created according to literature in this field (Page, 2009), and participants ticked those that applied to them. These bombing experience variables assessing variety of problems they might have experienced in functioning in response to their exposure to the bombing attack. Risk factors were identified in three partially overlapping domains, 1- level of perceived threat to life before the bombing (3 questions coded into yes and no categories), 2- level of perceived threat to life during the bombing (10 questions coded into yes and no categories, 4 questions-4 point scales, and 1 open end question), and 3- level of perceived threat to life after the bombing (2 questions coded into yes and no categories, and 6 questions-4 point scales).

PTSD symptoms

PTSD was measured using the PTSD inventory (Foa, 1995), a 17-item, self-reported symptom scale that corresponds to the DSM-IV-R (American Psychiatric Association, 1994). Respondents rate the extent to which they have been bothered by each symptom using a 4-point scale (0-

not at all to 4- almost always). Higher scores highlight more severe symptoms, with a possible score ranging from 0 to 51 (Foa, 1995). The inventory assesses the intensity of PTSD symptoms and provides scores for aggregated symptom clusters (i.e., intrusion, avoidance, and hyper-arousal). In the current study, participants were specifically asked to consider their symptoms over the past month in relation to their experience. The traumatic event in this study has been determined as the bomb attack, and all items were answered accordingly. This scale demonstrated high internal consistency, as well as high convergent validity when compared with diagnoses based on structured clinical interviews (Solomon et al., 1993). In the current sample, the Cronbach's alpha internal consistency coefficients were .78, .74, and .79 for intrusion, avoidance, and hyper-arousal, respectively.

The DSM-IV has specified the diagnoses of PTSD into Full and No PTSD. In this study however, Full, Partial and No PTSD will be used. Although Partial PTSD is not specified in DSM-IV, the rationale for using such a diagnosis is based on existing literature suggesting that it is not always helpful to view PTSD in terms of a binary split (Marshall, Spitzer, & Liebowitz, 1999). Studies also suggest that PTSD could be better conceptualised as a spectrum disorder, which may occur along a continuous dimension from normal to extreme or abnormal stress responses (Shalev, Schreiber, Galai, & Melmed, 1993). In addition, some people who are exposed to traumatic events may not fulfill diagnostic criteria for PTSD but still experience impairment in functioning, thus require more or less of a level of intervention and care to those who developed full PTSD symptoms (Carlier & Gersons, 1995). For the forgoing reasons, PTSD reactions were classified into full, partial and no PTSD by some researchers (see Ginzburg et al., 2002; O'Reilly, Grubb, & O'Carroll, 2004; Amer, Hovey, Fox, & Rezcallah, 2008). Partial PTSD, in

this study, covers people who developed probable PTSD and met at least one out of the three required symptom groups (Criteria B, C and D) (e.g. they met diagnostic criteria for intrusion symptoms but not avoidance and/or hyper-arousal symptoms) with a duration of ≥1 month (Criterion E).

Psychiatric Distress

General Health Questionnaire (GHQ-28) was used to assess the General Psychiatric disorders (Goldberg & Williams, 1988). It includes somatic, anxiety, social dysfunction, and depression problems. GHQ-28 scores are ranging from 0 to 84 and each item is scored from (0-3). Numerous studies have investigated reliability and validity of the GHQ-28 in various clinical populations. In a study by Dowell (2006), GHQ-28 scored high internal consistency= 0.91.The GHQ-28 correlated well with the Hospital Depression and Anxiety Scale (HADS) and other measures of depression. In the current sample, the Cronbach's alpha internal consistency coefficients were .79, .77, .72, and .82 for somatic, anxiety, social dysfunction, and depression, respectively.

Perceived Social Support

The Crisis Social Support scale (CSS; Andrews & Brwon, 1988) was used to assess social support. The CSS is a 7-items that are asked twice, one following the disaster (T1), and at the present time (T2). Items are scored on a 7-point-Likert type scale, ranging from 1 (never) to 7 (always) for each item. For this study, the researcher calculated overall CSS scores. The Cronbach's alpha internal consistency coefficient for CSS scores in the present study was .91.

Religious coping

The religious coping was measured using the Brief Arab Religious Coping Scale (BARCS) (Amer et al., 2008), which consists of 15 items. Participants were asked to indicate how typically they use the coping

response when faced with stressful events using a 0-3 scale (*0= not used at all/does not apply, 3= 'used always*). The BARCS consists of different types of religious coping strategies such as performing prayers, asking God for help and support, recitation Holy Books and religious stories. Respondents' final score on the BARCS is ranging from 0 to 45. The psychometric properties of the BARCS were tested in the current sample. The Cronbach's alpha internal consistency coefficient was .91.

Translation of the Questionnaires

Translation of the questionnaires was employed. The questionnaires which had already been translated into the Arabic language and used in Iraqi culture e.g. PDS and GHQ-28 (Freh, Chung, & Dallos, 2013) were used in this study, whereas questionnaires which had not been translated into Arabic before (e.g. CSS and BARCS) were translated and revised into Arabic by the researcher and two professors fluent in English. After some lengthy discussion with these two professors independently, a single version for each questionnaire was created. It should be mentioned that the original items of BARCS were adapted to fit the cultural background in Iraq. The original words 'church' and 'Bible' were revised and replaced with the words 'mosque' and 'Quran'. The reason for revising these items is that all the participants of this study are Muslims. Reading the Bible and going to church is a predominant religious activities in Western countries, however, reading Quran and going to Mosque are religious activities in the Muslim community.

Back translation was also conducted for ratification by another person who speaks Arabic as first language and is professional in English. The interpreter had lived in English speaking countries for several years and worked as a professional interpreter. All items were then discussed, with more emphasis on items where discrepancies were noted, until a uniform interpretation or an example of a difficult word or question was agreed

upon (or both). Any discrepancies were then discussed and resolved by joint agreement. According to the results of a pre-investigation using the second translation, items were revised and collated to form the Arabic version.

Psychometric properties of the questionnaires

Due to the fact that most of the questionnaires in this study had not been used in the Arabic culture (Iraq) before, the psychometric properties for the questionnaires (e.g. reliability) needed to be covered. Cronbach's *α*s, based on the sample of the current study, showed that the questionnaires had sound psychometric properties (see Table 1).

Table 1 Cronbach's *a* for the questionnaires

Questionnaires	Cronbach's *a*; *n*= 208
PDS	.85
GHQ-28	.91
CSS	.90
BARCS	.88

Procedures

The sample was designed to represent young adults who were living in high risk regions that were exposed to bombing attacks. A stratified random sample design was used to draw the sample. The design for sample selection was based on stratified variables: war zones areas (the most affected), Universities (government), and experience (first bombing experience). The most affected areas by bombing were identified by Iraqi Central Bureau of Statistics. Four Universities (1 in Anbar, 3 in Baghdad) were randomly selected. Contact with the selected Universities was made to obtain permission to conduct the study. After the researcher obtained permission, the researcher and two other psychologists helped to identify

potential participants. Two hundred and sixty individuals were identified. Fifty two did not wish to participate, yielding a final n = 208. Informed assent and consent were obtained from participants. They were given a full explanation of the study and were assured of the anonymity and confidentiality of their responses. Participants completed a set of questionnaires that included measures of PTSD, GHQ-28, CSS, and BARCS. Questionnaires were completed at Universities during sessions held after class and during lunch time. Ethics approval for the study was obtained from University of Anbar and University of Baghdad- Ethical Committee.

Statistical analyses

Data were examined for skewness, kurtosis, and outliers; no transformations were necessary. Descriptive statistics were performed for all demographic variables (i.e., age, gender, marital status, income level, intensity of exposure) and dependent variables (i.e., PTSD symptoms; type and frequency, psychiatric disorders). A set of correlations between dependent and independent variables were employed to examine interrelations among variables. Finally, to assess the unique contribution of intensity of exposure, religious coping and social support to the presence of PTSD and psychiatric disorders at a multivariate level, separate hierarchical regression models were used. To build the best-fitting model, the forward Wald method was used in order to remove non-significant and potentially confounding variables. The magnitude of the association between independent and dependant variables was evaluated through the estimate of adjusted odds ratios (OR). Three regression models were constructed for comparison. Model 1 included only intensity of exposure. In model 2, the social support variable was added. Model 3 added the religious coping variable. Also, logistic regression was used to predict PTSD and psychiatric distress. For each regression, odds ratio

(OR), *r*, and R^2 statistics are provided. The *r* and R^2 statistics in logistic regression are useful analogs to the partial *r* correlation and the R^2 statistics in linear regression, respectively, but are not fully equivalent. To denote this, the subscript "*p*" is used (i.e., r_p and R^2_p) to indicate that these should be interpreted as "pseudo" *r* and R^2 statistics, respectively. In cases where the predictor variable is significant and is a dichotomous variable (e.g., social support), the OR is reported in the text and is readily interpretable: it indicates the odds of having a current disorder when the predictor variable changes from 0 to 1, controlling for all other variables in the model. When the predictor has more than two categories (e.g., religious coping), the OR represents the change in the odds of having a current disorder per unit change in the predictor variable and, hence is not as readily interpretable in terms of effect magnitude. Consequently, when a predictor is significant and has more than two categories, the "*r*" analog ("r_p") is reported in the text instead of the OR. SPSS 19 was used to analyze the data of this study.

Results

1. Prevalence of probable post-bombing PTSD and psychiatric distress

The analysis of the PDS revealed that of the total sample, 143 (68.7%) students met the criteria for current probable PTSD with full and partial PTSD, in which 103 (49.5%) developed full PTSD and 40 (19.2%) met the screening criteria for partial PTSD. The rest, however, did not meet the screening criteria for PTSD. In this research, this outcome will be referred to as current probable PTSD to acknowledge that symptoms determined through the use of a screening instrument do not necessarily indicate whether an individual meets diagnostic criteria (North & Pfefferbaum, 2002). On the symptoms level, those with PTSD symptoms reported avoidance the most with mean of 10.42 (SD=4.83). The next

most reported symptom was intrusion with mean of 7.86 (SD=4.25) followed by hyper-arousal with mean of 7.72 (SD=3.86).

In addition, the majority (183, 87.9%) scored well at or above the cut-off point of 4, thus fulfilling the criteria for psychiatrics caseness. In other words, the likelihood for the participants to receive a diagnosis for a general psychiatric disorder has increased substantially. Participants reported anxiety the most with mean of 12.46 (SD=3.86). The next most reported symptom problems was somatic with mean of 11.26 (SD=5.11) followed by social dysfunction (M= 11.15, SD=5.25) and depression (M=10.28, SD=5.36).

2. Associations between intensity of exposure, religious coping, social support, and outcomes

Correlations between main dependent and independent variables (Table 2) indicated that meeting criteria for PTSD and psychiatric distress were both significantly associated with intensity of exposure to the attack. As well as, a higher level of social support and use religious activities were associated with less PTSD symptoms and psychiatric distress.

Table (2) Correlations (*r*) between main dependent and independent variables

		1	2	3	4	5	6	7	8	9	10	11
1.	Intrusion											
2.	Avoidance	.78**										
3.	Hyper-arousal	.69**	.68**									
4.	Screening criteria for PTSD	.91**	.92**	.86**								
5.	Somatic problems	.73**	.72**	.64**	.77**							
6.	Anxiety	.62**	.57**	.56**	.65**	.69**						
7.	Social dysfunction	.74**	.75**	.71**	.81**	.76**	.64**					
8.	Depression	.65**	.65**	.58**	.70**	.77**	.60**	.72**				
9.	Psychiatric distress	.78**	.77**	.71**	.83**	.92**	.80**	.89**	.89**			
10.	Intensity of exposure	.53**	.50**	.47**	.56**	.44**	.40**	.45**	.43**	.49**		
11.	Social support	-.27**	-.26**	-.24**	-.29**	-.25**	-.26**	-.13	-.14*	-.21**	-.02	
12.	Religious coping	-.22**	-.24**	-.25**	-.26**	-.18**	-.22**	-.15*	-.10	-.18**	-.20**	.08

**P <.001 (two-tailed) *P < .05 (two-tailed).

Finally, hierarchal linear regression analysis was performed to assess the unique contribution of variables to the presence of PTSD and psychiatric distress at a multivariate level. Given their significant correlation with the PTSD and psychiatric distress at a bivariate level, intensity of exposure score was entered into block 1 with the social support into block 2. And finally, block 3 comprised the total score of religious coping. The results of the regressions are shown in table 3. They indicate that exposure to the attack was positively related to the meeting criteria for PTSD, whereas religious coping and use of support seeking as a coping strategy were negatively associated with PTSD. Similar findings emerged from the analysis of psychiatric distress when intensity of exposure exacerbated psychiatric distress while having social support attenuated it. Only one variable was not strong predictor, namely religious coping.

Table 3 hierarchal linear regression statistics examining predictors of PTSD and psychiatric distress

Predictor variable	*B*	*SEB*	*β*	*t*
PTSD				
Intensity of exposure	7.04	.73	.53**	9.63
Social support	-.23	.04	-.26**	-4.95
Religious coping	-.15	.06	-.13*	-2.38
Psychiatric distress				
Intensity of exposure	9.33	1.18	.47**	7.88
Social support	-.25	.07	-.20**	-3.42
Religious coping	-.14	.08	-.14*	-1.11

*p < .05, **p < .01

Discussion

The substantial prevalence of probable PTSD (68.7%) and psychiatric distress (87.9%) in our population is higher and not within the range reported by previous studies conducted among young adults exposed to the same traumatic experience. Studies e.g. Gil and Caspi (2006) and

Palmieri et al. (2008) found that only 18% and 7.2% of the people who were exposed to terrorist attack met the diagnostic criteria for PTSD symptoms.Variation in prevalence of PTSD may partly be explained by the diagnostic questionnaires used across studies. It is also likely that one of the factors contributing to differences in the development of PTSD and psychiatric distress is the duration of the stressor. Studies tend to show high levels of PTSD in stressful situations that continue over a long period of time, as in Iraq. However, in situations where the stressful events are short-lived, the levels tend to fall. This finding adds support to the existing literature which has found that exposure to mass trauma tends to be comorbid with psychiatric distress and produce long-term psychological disorders among survivors (North et al., 2011; Freh et al., 2013).

Our second finding revealed that severely exposed participants reported higher PTSD and more distress symptoms, hence confirming the existing literature (e.g. Khamis, 2000; Freh et al., 2013) reporting that individuals who reported having intense traumatic experience, namely having friends being killed/injured during the incident, were noted to have a greater level of PTSD, depression and other psychological distress. The possible explanation of this result is that intensity of bombing exposure on young adults can be far-reaching, restrictive, and disruptive. It is therefore may evoke more symptoms of PTSD and psychiatric distress (APA, 1994).

The current study also examined the extent to which interpersonal resources, namely social support and religious coping, predict PTSD symptoms and psychiatric distress. The results of this study showed that social support played an important role in predicting PTSD symptoms and psychiatric distress (see table 2). The magnitude of this finding is in line with a considerable amount of literature (e.g. Tucker et al., 2000; Páez et al., 2007; Jianping et al., 2007; Ankri et al., 2010) confirming that

supportive social network to be linked with greater well being and alleviate PTSD symptoms and psychiatric distress. On the other hand, studies (e.g. Brewin, Andrews, & Valentine, 2000; Ozer, Best, Lipsey, & Weiss, 2003) suggested that impaired social support is one of the most powerful risk factors for PTSD and psychiatric distress. The primary explanation that has emerged for this is that social support serves a protective role, primarily during times of stress, by enhancing adaptive coping behaviors and rebuilds positive personal emotions. Religion was also found to be a significant factor in predicting PTSD symptoms and psychiatric distress. Our results suggest that higher levels of religious coping among survivors evidenced the lowest levels of PTSD symptoms and psychiatric distress. This finding is consistent with those of previous studies that have documented a significant link between religious coping and alleviation of PTSD symptoms after bombing (North et al., 2005; North et al., 2011), as well as with those of a study that documented the association between the religious coping and decreased psychiatric distress (Hayward et al., 2012). This adds further evidence to the growing body of research demonstrating the useful effects of religious coping (Carpenter et al., 2012). This finding also stands in agreement with several recent studies linking negative religious coping with depressive symptoms (e.g., Bjorck & Thurman, 2007; Hebert et al., 2009; Sherman et al., 2009).

We argue that religious practices were used to help enhancing feelings of control, connectedness, providing number of benefits, including lower perceptions of vulnerability, isolation, confusion, and symptoms of stress (Meisenhelder, 2002). Based on this, religious activities, such as performing prayers, reading the Quran, and asking God for help , might played an essential role as a protective mechanism against negative thoughts that have been yielded aftermath the bombing experience (Freh,

Dallos, & Chung, 2012). Some other studies (e.g. Baetz et al., 2006; Hayward et al., 2012; Carpenter et al., 2012) also suggested that religious service attendance and performing prayers linked with lower risk of psychological distress and symptoms of depression.

It can be concluded that as a consequence of a mass trauma, young adults develop PTSD symptoms and mental health problems. However, there are some significant interpersonal protective resources against symptoms. The results of this study contribute to the growing body of evidence that the ways young adults turn to faith and social support in response to stress is associated with mental health. This finding can be used to direct proactive intervention programs aimed at helping young adults to process the traumatic experience, overcome problematic thoughts and behaviors, and develop effective coping and interpersonal skills (e.g., psycho-education, support, and some parental work). Also, the results illustrate the need for an ongoing collaborative effort of all stakeholders (providers, policy makers, and education organizations) to improve the understanding of young adults' mental health needs, and the effectiveness of the available services for war-affected individuals.

The results of this study should be considered in light of certain limitations. First, the study design is cross-sectional, and the data are correlational. Thus, our model cannot provide a definitive statements regarding causality. Second, our sole reliance on self-report questionnaires could be one of the limitations which might have contributed to shared method variance and an undetected response bias. Also of note is the present study lacked prospective pre-disaster data to measure changes after the bombing. Nevertheless, pre-disaster data are practically never available in bombing and terror studies.

References

Andrews, B., & Brown, G. W. (1988). Social support, onset of depression and personality: An exploratory analysis. *Social Psychiatry and Psychiatric Epidemiology, 23*, 99-108.

Ankri, Y. L. E., Bachar, E., & Shalev, A. Y. (2010). Reactions to terror attacks in ultra-Orthodox Jews: The cost of maintaining strict identity. *Psychiatry: Interpersonal and Biological Processes 73*, 190-197.

Ano, G. G., & Vasconcelles, E. B. (2005). Religious coping and psychological adjustment to stress: A meta-analysis. *Journal of Clinical Psychology, 61,* 461–480.

Amer, M. M., Hovey, J. D., Fox, C. M., & Rezcallah, A. (2008). Initial development of the Brief Arab Religious Coping Scale (BARCS). *Journal of Muslim Mental Health, 3*, 69-88.

American Psychiatric Association (APA). (1994). Diagnostic and statistical manual of mental disorders (4th ed.). Washington, DC: Author.

Baetz, M., Bowen, R., Jones, G., Koru-Sengul, Tulay. (2006). How spiritual values and worship attendance relate to psychiatric disorders in the Canadian population. *Canadian Journal of Psychiatry, 51*, 654- 661.

Bjorck, J., & Thurman, J. (2007). Negative life events, patterns of positive and negative religious coping, and psychological functioning. *Journal for the Scientific Study of Religion, 46,* 159–167.

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*, 748–766.

Bux, S. M., & Coyne, S. M. (2009). The effects of terrorism: The aftermath of the London terror attacks. *Journal of Applied Social Psychology, 39*, 2936-2966.

Carlier, I. V. E., & Gersons, B. P. R. (1995). Partial Posttraumatic Stress Disorder (PTSD): The Issue of Psychological Scars and the Occurrence of PTSD Symptoms. *Journal of Nervous and Mental Disease 183*, 107-109.

Carpenter, T. P., Laney, T., & Mezulis, A. (2012). Religious Coping, Stress, and Depressive Symptoms Among Adolescents: A Prospective Study. *Psychology of Religion and Spirituality, 4*, 19-30.

Dolbier, C. L., & Steinhardt, M. A. (2000). The development and validation of the Sense of Support Scale. *Behavioral Medicine, 25*, 167–179. Fiske, S. T., & Taylor, S. E. (1991). *Social cognition.* New York: McGraw-Hill.

Dowell, A. (2006). The treatment of common mental health problems in general practice. *Family Practice, 23*, 53-59.

Foa, E. B. (1995). *Posttraumatic Stress Diagnostic Scale Manual*. United States of America: National Computer Systems, Inc.

Freh, F. M., Chung, M. C., & Dallos, R. (2013). In the shadow of terror: Posttraumatic stress and psychiatric co-morbidity following bombing in Iraq: The role of shattered world assumptions and altered self-capacities. *Journal of Psychiatric Research, 47*, 215-225.

Freh, F. M., Dallos, R., & Chung, M. (2012). An Exploration of PTSD and Coping Strategies: Response to the Experience of Being in a Bomb Attack in Iraq. *Traumatology, 19*, 87-94.

Galea, S., Ahern, J., Resnick, H., Kilpatrick, D., & Bucuvalas, M. (2002). Psychological sequelae of the September 11 terrorist attacks in New York City. *The New England Journal of Medicine, 346*, 982-987.

Gil, S., & Caspi, I. (2006). Personality traits, coping styles, and perceived threat as predictors of post traumatic stress disorder after exposure to a terrorist attack: a prospective study. *Psychosomatic Medicine, 68*, 904-909.

Ginzburg, K., Solomon, Z., & Bleich, A. (2002). Repressive Coping Style, Acute Stress Disorder, and Posttraumatic Stress Disorder After Myocardial Infarction. *Psychosomatic Medicine, 64*, 748-757.

Giordano, A. L., & Cecil, A.L. (2014). Religious Coping, Spirituality, and Hypersexual Behavior Among College Students. *Sexual Addiction & Compulsivity: The Journal of Treatment & Prevention, 21*, 225-239.

Goldberg, D. (1988). *The General Health Questionnaire 28*. Windsor, U.K: NFER-Nelson Publishing.

Haber, M. G., Cohen, J. L., Lucas, T., & Baltes, B. B. (2007). The relationship between self-reported received and perceived social support: A meta-analytic review. *American Journal of Community Psychology, 39*, 133–144.

Harrison, M. O., Koenig, H. G., Hays, J. C., Eme-Akwari, A. G., & Pargament, K. I. (2001). The epidemiology of religious coping: A review of recent literature. *International Review of Psychiatry, 13,* 86-93.

Hayward, R. D., Owen A. D., Koenig, H. G., Steffens, D. C., & Payne, M. E. (2012). Longitudinal Relationships of Religion with Posttreatment Depression Severity in Older Psychiatric Patients: Evidence of Direct and Indirect Effects. *Depression Research and Treatment,* doi:10.1155/2012/745970.

Hebert, R., Zdaniuk, B., Schulz, R., & Scheier, M. (2009). Positive and negative religious coping and well-being in women with breast cancer. *Journal of Palliative Medicine, 12,* 537–545.

Hobfoll, S. E., Spielberger, C. D., Breznitz, S., Figley, C., Folkman, S., & et al. (1991). War-related stress: Addressing the stress of war and other traumatic events. *American Psychologist, 46*, 848-855.

Jensen, T. K., Thoresen, S., & Dyb, G. (2014). Coping responses in the midst of terror: The July 22 terror attack at Utøya Island in Norway. *Scand J Psychol*, doi:10.1111/sjop.12182.

Jianping, W., Yulong, W., Wei, X., & Zhihui, Y. (2007). Effects of values on the PTSD symptoms of deliberate trauma victims. *Acta Psychologica Sinica, 39*, 873-879.

Joseph, S., Williams, R., & Yule, W. (1992). Crisis support, attributional style, coping style, and post-traumatic symptoms. *Personality and Individual Differences, 13*, 1249-1251.

Khamis, V. (2012). Impact of war, religiosity and ideology on PTSD and psychiatric disorders in adolescents from Gaza Strip and South Lebanon. *Social Science & Medicine, 74*, 2005-2011.

King, D. W., King, L. A., Foy, D. W., Keane, T. M., & Fairbank, J. A. (1999). Posttraumatic stress disorder in a national sample of female and male Vietnam veterans: Risk factors, war-zone stressors, and resilience recovery variables. *Journal of Abnormal Psychology, 108,* 164-170.

Lin, Y., & Margolin, D. (2014). The ripple of fear, sympathy and solidarity during the Boston bombings. *EPJ Data Science, 3*, 1-31.

Luce, A., Firth-Cozens, J., Midgley, S., & Burges, C. (2002). After the Omagh bomb: Posttraumatic stress disorder in health service staff. *Journal of Traumatic Stress, 15*, 27-30.

Marshall, R. D., Spitzer, R., & Liebowitz, M. R. (1999). Review and critique of the new DSM-IV diagnosis of acute stress disorder. *The American Journal of Psychiatry, 156,* 1677-1685.

Meisenhelder, J. B. (2002). Terrorism, posttraumatic stress, and religious coping. *Issues in Mental Health Nursing, 23,* 771–782.

Njenga, F. G., Nicholls, P. J., Nyamai, C., Kigamwa, P., & Davidson, J. R. T. (2004). Post-traumatic stress after terrorist attack: Psychological reactions following the US embassy bombing in Nairobi: Naturalistic study. *British Journal of Psychiatry, 185*, 328-333.

Norris, F. H., & Kaniasty, K. (1996). Received and perceived social support in times of stress: A test of the social support deterioration deterrence model. *Journal of Personality and Social Psychology, 71,* 498–511.

North., C. S., Pfefferbaum, B., Narayanan, P., Thielman, S., McCoy, G., Dumont, C., . . . Spitznagel, E. L. (2005). Comparison of post-disaster psychiatric disorders after terrorist bombings in Nairobi and Oklahoma City. *British Journal of Psychiatry, 186,* 487-493.

North, C. S., Pfefferbaum, B., Kawasaki, A., Lee, S., & Spitznagel, E. L. (2011). Psychosocial adjustment of directly exposed survivors 7 years after the Oklahoma City bombing. *Comprehensive Psychiatry, 52*, 1-8.

North, C. S., & Pfefferbaum, B. (2002). Research on the mental health effects of terrorism. *Journal of the American Medical Association, 288,* 633 -636.

O'Reilly, S. M., Grubb, N., & O'Carroll, R. E. (2004). Long-term emotional consequences of in-hospital cardiac arrest and myocardial infarction. *British Journal of Clinical Psychology, 43*, 83-96.

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,* 52–73.

Páez, D., Basabe, N., Ubillos, S., & Gonźalez-Castro, J. L. (2007). Social sharing, participation in demonstrations, emotional climate, and coping with collective violence after the March 11th Madrid bombings. *Journal of Social Issues, 63,* 323-337.

Page, A. Z., Kaplan, H., Erdogan, N., & Guler, F. (2009). Posttraumatic stress and depression reactions among survivors of the Istanbul November 2003 terrorist attacks. *Journal of Aggression, Maltreatment & Trauma, 18,* 280-292.

Palmieri, P. A., Galea, S., Canetti-Nisim, D., Johnson, R. J., & Hobfoll, S. E. (2008). The psychological impact of the Israel–Hezbollah war on Jews and Arabs in Israel: The impact of risk and resilience factors. *Social Science & Medicine, 67,* 1208–1216.

Pargament, K. I., Koenig, H. G., & Perez, L. (2000). The many methods of religious coping: Development and initial validation of the RCOPE. *Journal of Clinical Psychology, 56,* 519–543.

Pargament, K. I., Smith, B. W., Koenig, H. G., & Perez, L. (1998). Patterns of positive and negative religious coping with major life stressors. *Journal for the Scientific Study of Religion, 37,* 710–724.

Pfefferbaum, B., Seale, T. W., McDonald, N. B., Brandt, E. N., Rainwater, S. M., Maynard, B. T., . . . Miller, P. D. (2000). Posttraumatic stress two years after the Oklahoma City bombing in youths geographically distant from the explosion. *Psychiatry: Interpersonal and Biological Processes, 63,* 358-370.

Plante, T. G., & Sherman, A. C. (2001). *Faith and healing: Perspectives on the relationship between religious faith and health outcomes*. New York Guilford.

Russell, D., & Cutrona, C. E. (1991). Social support, stress, and depressive symptoms among the elderly: Test of a process model. *Psychology and Aging, 6,* 190-201.

Shahar, G., Cohen, G., Grogan, K. E., Barile, J. P., & Henrich, C. C. (2009). Terrorism-Related Perceived Stress, Adolescent Depression, and Social Support From Friends. *Pediatrics, 124,* 235 -240.

Shalev, A. Y., Tuval-Mashiach, R., & Hadar, H. (2004). Posttraumatic stress disorder as a result of mass trauma. *Journal of Clinical Psychiatry, 65,* 4-10.

Shalev, A. Y., Schreiber, S., Galai, T., & Melmed, R. N. (1993). Post-traumatic stress disorder following medical events. *British Journal of Clinical Psychology, 32,* 247-253.

Sherman, A. C., Plante, T. G., Simonton, S., Latif, U., & Anaissie, E. J. (2009). Prospective study of religious coping among patients undergoing autologous stem cell transplantation. *Journal of Behavioral Medicine, 32,* 118-128.

Solomon, Z., Benbenishty, R., Neria, Y., Abramovitz, M., Ginzburg, K., & Ohry, A. (1993). Assessment of PTSD: Validation of the revised PTSD Inventory. *Israel Journal of Psychiatry and Related Sciences, 30,* 110-115.

Stevens, G. J., Dunsmore, J. C., Agho, K. E., Taylor, M. R., Jones, A. L., & Raphael B. (2013). Coping support factors among Australians affected by terrorism: 2002 Bali bombing survivors speak. *The Medical Journal of Australia, 199,* 772-775.

Thormar, S., B., Gersons, B. P. R; Juen, B., Marschang, A., Djakababa, M. N., et al. (2010). The mental health impact of volunteering in a disaster setting: A review. *Journal of Nervous and Mental Disease, 198,* 529-538.

Trevino, K. M., Balboni, M., Zollfrank, A., Balboni, T., & Prigerson, H. G. (2014). Negative religious coping as a correlate of suicidal ideation in patients with advanced cancer. *Psychooncology, 23,* 936-945.

Tucker, P., Pfefferbaum, B., Nixon, S. J., & Dickson, W. (2000). Predictors of post-traumatic stress symptoms in Oklahoma City: Exposure, social support, peri-traumatic responses. *The Journal of Behavioral Health Services & Research, 27,* 406-416.

Wesley, K. M., Zelikovsky, N., & Schwartz, L. A. (2013). Physical symptoms, perceived social support, and affect in adolescents with cancer. *Journal of Psychosocial Oncology, 31,* 451-567.

لماذا البعض أكثر قدرة على مواجهة الصدمات: تقصّي دور الإسناد الإجتماعي والديني الفعال في التنبؤ بإضطراب مابعد الصدمة والكرب النفسي

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الملخص:

هناك القليل من الدراسات النفسية التي حاولت تقصي آثار الصدمات النفسية والدور الفعال لأليات المواجهة بين البالغين في العراق. استهدفت هذه الدراسة التعرف على مدى انتشار اضطرابات مابعد الصدمة والكرب النفسي. كما استهدفت ايضا التعرف على دور بعض أليات التعامل مع الصدمات في التخفيف من حدة الصدمة. تالفت عينة البحث من ٢٠٨ فرد، بلغ معدل اعمارهم ٢٠.٢٦ سنة. لتحقيق اهداف البحث استخدم الباحث مجموعة من الاستبيانات منها (مقياس اضطراب مابعد الضغوط الصدمية، استبيان الصحة العامة، مقياس الاسناد الاجتماعي، و مقياس اليات المواجهة الديني المختصر). اشارت النتائج الى ان ٦٨.٧% و ٨٧.٩% من العينة طوروا اعراض تتسق مع تشخيص اضطراب مابعد الصدمة والكرب النفسي على التوالي. اشارت النتائج ايضا الى ان كل من شدة التعرض للحدث الصدمي، ضعف مستوى الاسناد الاجتماعي واليات المواجهة الدينية لها تأثير مباشر ذات دلالة احصائية في تطوير اضطراب مابعد الصدمة والكرب النفسي. تؤكد هذه النتائج على دور المصادر الداخلية في التخفيف من حدة الصدمات النفسية المهددة للحياة والدور الايجابي الذي يلعبه الاسناد الاجتماعي والمعتقدات الدينية للفرد.