

Life Satisfaction, Social Support, and Emotional Numbing in Relation to Past Trauma

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Abstract

Attempts have been made to identify factors that moderate the effects of trauma and are associated with higher ratings of life satisfaction among trauma-exposed individuals (Pruneau, 2009; Rapaport et al., 2005; Zatzick et al., 1997). This literature has produced much data on the moderating effects of social support in relation to trauma/PTSD symptoms, post-trauma impairment, and life satisfaction. Though a body of research exists on this topic, the effect of emotional numbing on the relationship between social support and trauma outcomes has yet to be fully examined. The purpose of this study is to examine how emotional numbing may moderate previously reported relationships between social support and life satisfaction among trauma-exposed individuals. The sample consisted of 300 PSYSC 100 students, from a mid-size university, who completed the following measures electronically: the PTSD Checklist-Civilian Version (PCL-C), Green's Trauma History Questionnaire (THQ), the Multidimensional Students' Life Satisfaction Scale (MSLSS), and the Berlin Social-Support Scale (BSSS). Data from the questionnaires was analyzed using a series of correlations. A negative correlation was observed between PCL-C and MSLSS scores.

Keywords: trauma, PTSD, social support, life satisfaction, emotional numbing

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According to Pruneau (2009), an estimated 60% of Americans will experience a traumatic event in their lifetime. With an exposure rate such as this, the topic of trauma and Post-traumatic Stress Disorder (PTSD) has elicited significant attention from researchers (Neria, Besser, Kiper, & Westphal, 2010; Rapaport, Clary, Fayyad, & Endicott, 2005).

The lasting effects of trauma have been examined by Rapaport et al. (2005), who stated that trauma-exposed individuals report lower levels of life satisfaction. Their study examined quality-of-life impairment in research participants with one of eight anxiety or affective disorders, one of them being PTSD. Quality of life was defined as a participant's subjective view of social relationships, physical health, functioning in daily activities, economic status, and an overall sense of well-being, as quantified by measures of life satisfaction. Data was analyzed from participants in 11 multi-center trials investigating the efficacy of Sertraline for the treatment of anxiety or affective disorders. Of the participants suffering from anxiety or affective disorders, 187 had been diagnosed with PTSD. The mean age of the participants with PTSD was 40 years, with a mean illness duration of 12 years, and 73% of the participants were women. In addition to data from participants entering clinical trials, a non-psychiatric community sample ($N = 67$) was used in establishing norms for the Quality of Life Enjoyment and Satisfaction Questionnaire-Short Form (Q-LES-Q-SF). Before receiving Sertraline treatment, participants completed the Q-LES-Q-SF, a 16-item self-report questionnaire used to indicate the degree of enjoyment or satisfaction experienced during the past week. Severe impairment was operationally defined as Q-LES-Q-SF scores two or more standard deviations below the community norm ($m = 0.71$). Additionally, severity of illness-specific symptoms, as assessed using the Clinician-Administered PTSD Scale- Part 2, were examined as predictors of quality of

life. It was reported that all diagnostic groups had lower mean Q-LES-Q-SF percentage scores than the community norm. Specifically, 59% of participants diagnosed with PTSD were categorized as having “severely impaired” quality of life (two or more standard deviations below the community norm). Though all participants with psychiatric disorders had diminished quality of life across all domains measured by the Q-LES-Q-SF, in comparison with the community norm, greater impairment was demonstrated among certain disorders. Specifically, PTSD and mood disorders were associated with more profound and global impairments. Furthermore, participants diagnosed with PTSD demonstrated the lowest mean scores on the Q-LES-Q-SF. Examination of individual Q-LES-Q-SF items revealed that PTSD resulted in broad, substantial impairment across all domains of quality of life, and a greater severity of functional impairment was seen in participants with PTSD, as compared with other anxiety disorders (Rapaport et al., 2005).

With this knowledge in mind, it seems the next direction in trauma research would be to begin identifying factors that moderate the effects of trauma. Research has been conducted with this purpose and factors have been identified that are associated with higher life-satisfaction ratings among trauma-exposed individuals (Zatzick et al., 1997). According to Haber, Cohen, Lucas, and Baltes (2007), perceived social support is a primary interpersonal resource that is critical for coping with stress. Perceived social support has also been associated with psychological wellbeing during times of stress (Norris & Kaniasty, 1996). Present literature suggests that perceived social support mediates the link between stressful life events and psychological consequences, such as anxiety, depression, and behavioral distress (Russell & Cutrona, 1991). Higher levels of perceived social support have also been linked to more positive

PTSD recovery outcomes (King et al., 1999), and according to Cutrona and Russell (1987) social support serves a protective role during times of stress by enhancing adaptive coping behaviors.

Wilcox (2010) conducted a study to determine if recent combat veterans discriminate between different sources of social support, and to investigate the relationship between social support sources and impacts on PTSD symptomology. The sample consisted of 83 married, male Army combat veterans. Of the participants, 86.75 % were White, 10.84% were Black, and 2.41% identified as Other. The participants ranged from 19 to 38 years of age ($M = 24.69$, $SD = 2.69$) and had served in a war for the United States during the past seven years. Participants were recruited via flyers posted near military bases and through participant referral. The Multidimensional Scale of Perceived Social Support (MSPSS), a 12-item self-report questionnaire, was used as a measure of social support, and the PTSD Checklist, Military Version (PCL-M) was used as a measure of PTSD symptomology. Wilcox (2010) reported that combat veterans differentiate between distinct sources of social support, rather than one all-inclusive global construct of social support. Results indicated that higher levels of social support were directly related to fewer and less severe symptoms of PTSD (Wilcox, 2010).

Though a body of research exists on the relationship between social support and trauma outcomes, the effect emotional numbing (a trauma-related symptom) may have on this relationship has yet to be examined fully. Emotional numbing typically includes three characteristic symptoms: loss of interest in activities, detachment from others, and a restricted range of affect. According to Foa, Riggs, and Gershuny (1995), when one is unsuccessful at reducing distress associated with memories of a traumatic event, the affective system shuts down, which is expressed through symptoms of numbing. Though an overlap between symptoms of emotional numbing and symptoms of depression has been noted by some researchers, Glover

(1992) stated that emotional numbing differs from depression because it denotes the absence of feelings, including those of depression and sadness.

Feeny et al. (2000) examined the relationship between emotional numbing, depression, and disassociation, as well as, their respective relationships with PTSD. The participants included 161 women who had been assaulted (sexually and non-sexually) within the previous month. Participants were followed for a period of approximately one year after their assault. Feeny et al. (2000) used the PTSD Symptom Scale-Interview (PSS-I), which consists of 17 items that correspond to the DSM-III-R PTSD symptoms, each rated on a 3-point Likert scale for frequency and severity. Emotional numbing was derived from three items: lack of interest in activities, emotional disengagement from others, and lack of emotional reactivity. These items comprised a total emotional numbing score. For all analyses, PTSD severity was calculated without these three emotional numbing items in order to eliminate overlap between numbing and PTSD. The Standardized Assault Interview (SAI), a 136-item semi-structured interview, was used to gather information regarding demographic variables, previous victimization history, assault characteristics (injury, threat of death), and interactions with the legal system. The Beck Depression Inventory (BDI), a 21-item inventory, was used to measure depression. To eliminate item overlap, for all analyses BDI severity was calculated without two items that were similar in content to the emotional numbing items. Lastly, the Dissociative Experiences Scale (DES), a 28-item self-report measure of dissociative experiences, was also used. Participants were assessed using a series of self-report questionnaires, and assessment sessions, conducted by trained interviewers. These sessions lasted approximately two hours. Initial assessments were conducted within 2 to 3 weeks of the assault, and additional assessments were made weekly for 12 weeks. The results of the study were consistent with the conceptualization of numbing as a cardinal

feature of PTSD. Initial emotional numbing (two weeks after an assault) was related to initial levels of depression, dissociation, and PTSD. After accounting for depression and dissociation, initial emotional numbing remained associated with PTSD severity. Furthermore, high initial levels of emotional numbing were predictive of PTSD severity three months later. Emotional numbing, depression, and dissociation were all negatively related to recovery, but only emotional numbing and depression were observed as significant predictors of chronic PTSD, with emotional numbing predicting slightly beyond depressive symptoms. Feeny et al. (2000) concluded that emotional numbing reflects the survivor's inability to engage emotionally with the traumatic memory and, thus, impairs the processes that promote recovery.

The purpose of the current study was to examine how measures of life satisfaction in trauma-exposed participants compared to measures of life satisfaction in non-trauma-exposed participants. In addition, scores of trauma-exposed participants on measures of social support and emotional numbing were examined. The current study attempted to examine how past trauma may continue to manifest itself in the daily lives of participants based on measures of life satisfaction, social support, and emotional numbing. Based on existing research regarding this topic, it was hypothesized that (1) participants in the non-trauma-exposed group would score higher on the measure of life satisfaction than participants in the trauma-exposed group, (2) of participants in the trauma-exposed group only, those who scored higher on the measure of life satisfaction would also have higher scores on the measure of social support in comparison to participants who scored low on the measure of life satisfaction, and (3) of participants in the trauma-exposed group only, those who scored lower on measures of life satisfaction and social support would report more frequent and/or more severe symptoms of emotional numbing in comparison to participants who scored higher on measures of life satisfaction and social support.

Method

Participants

Participants were 300 undergraduate students from a mid-size, midwestern university currently enrolled in an introductory psychology course. Participants ranged between 18-24 years of age, 33% of participants were male, and 67% of participants were female. Racial composition of the sample was as follows: 88% Caucasian, 5% African American, 2% Hispanic, 2% Asian American, and 3% identified as Multi-racial or Other.

Data collection occurred during February 2011 and March 2011. Participants were recruited from the Psychological Science 100 course subject pool, and were offered one hour of research participation credit, which counted toward fulfilling course requirements for Psychological Science 100, as incentive to participate. Inclusion criteria for the study was as follows: participants (1) must be currently enrolled as an undergraduate at Ball State University, (2) must be currently enrolled in a section of Psychological Science 100, (3) must be 18 years of age or older, (4) must not currently/recently be/have been in treatment for PTSD or any other anxiety disorder. The study was approved by the Ball State University Institutional Review Board (IRB protocol # 198043-3).

Materials

Demographic Questionnaire. A demographic questionnaire was used to collect data regarding participant age, race, gender, family structure, socioeconomic status, etc. Responses to the demographic questionnaire were not scored.

PTSD Checklist- Civilian Version (PCL-C). The PTSD Checklist- Civilian Version (PCL-C) is a self-report rating scale consisting of 17 items, which correspond to the DSM-III-R symptoms of PTSD. Participants were instructed to indicate how much they have been bothered

by each symptom in the past month using a 5-point Likert scale (with anchors ranging from “*Not at all*” to “*Extremely*”). The PCL-C can be used as a continuous measure of PTSD symptom severity by summing scores across the 17 items and has been determined to have an optimally efficient cutoff score of 44 for severity. Test-retest reliability of the PCL-C is excellent (.96) and it has high internal consistency (.97; Weathers et al., 1993). Items of the PCL-C that assessed emotional numbing were isolated and used to construct a separate emotional numbing score.

Multidimensional Student’s Life Satisfaction Scale (MSLSS). The Multidimensional Student’s Life Satisfaction Scale (MSLSS) was designed to provide a profile of a student’s life satisfaction judgments. The 40-item self-report questionnaire assesses life satisfaction in multiple domains including school, family, friends, and overall general satisfaction with life. The MSLSS assesses a participant’s level of agreement with a given statement using a 6-point Likert scale (*1 = strongly disagree* to *6 = strongly agree*). Scores on negatively phrased items must be reversed and then a total life satisfaction score may be obtained by summing scores on all items. Thus, higher scores indicate higher levels of life satisfaction. Internal consistency has been reported to range from the .70s to low 90s, and test-retest reliability has been reported to fall in the .70 to .90 range, as well (Huebner et al., 1998)

Green’s Trauma History Questionnaire (THQ). Green’s Trauma History Questionnaire (THQ) is a 24-item instrument addressing the lifetime occurrence of a variety of traumatic events in three categories: crime, general disaster/trauma, and sexual and physical assault experiences. For each item, the subject indicates (*yes/no*) whether or not they have experienced the described event. The final item asked “*Have you experienced any other extraordinarily stressful situation or event that is not covered above?*” and is included to allow participants to report experiences that they considered extremely stressful. The THQ is not a test,

but rather, it is a history collection instrument and there is no standard method for scoring it. It is possible to sum the number of types of trauma exposure to report the overall trauma histories of a group (Green, 1996). However, for the purposes of this study, the THQ was used to collect data on the types of trauma experienced by participants and was not scored in any way.

Berlin Social Support Scales (BSSS). The Berlin Social Support Scales (BSSS) consist of 6 subscales: perceived support, actually provided support, received support, need for support, support seeking, and protective buffering. These subscales address both cognitive and behavioral aspects of social support. The BSSS requires participants to rate their level of agreement with a given statement using a 4-point Likert scale (*1 = strongly disagree to 4 = strongly agree*).

Negatively phrased items were reversed to obtain a total social support score by summing item responses. Internal consistency for subscales has been reported for perceived social support (.83), received social support (.83), need for support (.63), support seeking (.81), protective buffering (.82), and provided social support in a partner sample (.75; Schulz & Schwarzer, 2003).

Procedure

Participants registered to participate in the study through the Psychological Science 100 experiment registration website and were provided with a link to access the questionnaires electronically through the university's computerized testing system, InQsit. For purposes of awarding research participation credit and verifying participant eligibility, participants were required to log on to the computerized testing system using a university assigned username and password. Though participants were identified when logging on to the testing system, an InQsit feature was used to separate participant identities from participant responses. Thus, all participant responses remained anonymous. Before beginning the questionnaires, participants were presented with an electronic document containing information about the sensitive nature of

the questionnaires, contact information for the researchers, and contact information for mental health resources in the area. Participants were instructed to read the study information and were required to select either “Agree and proceed” or “Decline and exit.” Those who declined were automatically redirected out of the electronic testing system and were not able to proceed to the questionnaires. Those who agreed to participate, proceeded to the questionnaires and completed the questionnaires in approximately 60 minutes or less. Upon completion of the questionnaires, participants proceeded to a screen containing debriefing information for the study. Participants were given the opportunity to voluntarily provide an email address for the purpose of being contacted for possible participation in a future study on this topic. Following debriefing, participants were given the opportunity to print a copy of the study information page to keep for future reference. Participants were electronically awarded one hour of research within 72-hours of completing the questionnaires.

Results

Life Satisfaction. Among all participant scores, scores on measures of PTSD symptoms and life satisfaction were analyzed using Pearson’s r . Scores on the PCL-C were negatively correlated with MSLSS scores, $r(298) = -.47, p < .01$. Using a cutoff score of 44 on the PCL-C to determine trauma-exposed and non-trauma-exposed groups (Weathers, et al., 1993), life satisfaction scores among groups were compared using Pearson’s r . No significant correlation was found among trauma group status and MSLSS scores, $r(92) = .04, p < .01$.

Social Support. Among the trauma group ($N = 94$), scores on measures of life satisfaction and social support were analyzed using Pearson’s r . No significant correlation was found between scores on the MSLSS and the BSSS, $r(92) = -.09, p < .01$.

Emotional Numbing. Among the trauma group ($N = 94$), scores on the emotional numbing items of the PCL-C were summed and used as an emotional numbing score. Scores on measures of life satisfaction and emotional numbing were analyzed using Pearson's r . No significant correlation was found between scores on the MSLSS and emotional numbing, $r(92) = -.08, p < .01$. Scores on measures of social support and emotional numbing were analyzed using Pearson's r . No significant correlation was found between scores on the BSSS and emotional numbing, $r(92) = -.15, p < .01$.

Discussion

Implications

Consistent with the findings of current research (Rapaport et al., 2005), scores on the PCL-C were negatively correlated with scores on the MSLSS. In other words, participants who reported more symptoms of PTSD also reported lower levels of life satisfaction. However, when a cutoff score of 44 on the PCL-C was used to define trauma-exposed and non-trauma exposed groups (Weathers et al., 1993), no correlation was observed when comparing group scores on the MSLSS. Thus, the hypothesis that participants in the non-trauma-exposed group would score higher on the measure of life satisfaction than participants in the trauma-exposed group was not supported. It is possible that unobserved factors may have contributed to scores on the measure of life satisfaction. Various factors such as trauma type, age at time of trauma, personality, and frequency of trauma exposure, etc. make it difficult to predict an individual's level of life satisfaction based on group status alone.

With regard to the second hypothesis, that trauma-exposed participant scores on the MSLSS would be positively correlated with scores on the BSSS, no such correlation was observed. This finding was not supported by the current research stating that higher levels of

social support are associated with higher levels of life satisfaction after trauma (Wilcox, 2010; Haber et al., 2007). It is possible that factors and resources, other than social support, contribute to higher levels of life satisfaction in some individuals who have experienced trauma.

Concerning the third hypothesis, that trauma-exposed participant scores on the MSLSS and the BSSS would be negatively correlated with scores on the measure of emotional numbing (taken from the PCL-C), no such correlation was observed. Unlike the findings of Feeny et al. (2000), levels of emotional numbing appeared to have no relationship with levels life satisfaction and social support. It is possible that symptoms of emotional numbing, in particular, do not affect the level of social support perceived by individuals experiencing PTSD symptoms.

Methodological Strengths and Weaknesses

Two primary strengths of this study were the use of a relatively large sample size and the use of several statistically valid and reliable instruments of measure (MSLSS, PCL-C, BSSS). However, a significant methodological weakness was the use of extracted items from the PCL-C as a measure for emotional numbing. A more developed measure for emotional numbing would likely have yielded more valid results. Despite having a large sample size, the sample lacked diversity and may not be an accurate reflection of those in the trauma-exposed population. Additionally, group size for trauma-exposed ($N = 94$) was significantly smaller than group size for non-trauma-exposed ($N = 206$). The anonymous nature of the questionnaires may have been both a methodological strength and weakness. The strength of anonymity is that it reduced possible participant discomfort associated with revealing sensitive, personal information for research purposes. However, the weakness of anonymity was that it likely reduced the sense of accountability participants felt for providing accurate and thoughtful responses. Also, a voluntary

sample was used, and participants who self-selected to participate may have already had an interest in the study topic.

Future Research

Despite the results of the current study, the research questions posed remain viable topics for future study. Future research should address the methodological flaws of the current study, and reexamine these questions with a more diverse sample and a validated measure of emotional numbing. Additionally, the current study sought to observe very complex relationships using a method that may not be able to adequately quantify the experience of the participant. It is highly suggested that these research questions be addressed using alternate methods of data collection, including a qualitative interview, as a way to yield more meaningful data.

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