

Posttraumatic Growth and Resilience after A Prolonged War: A Study in Baghdad, Iraq

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ABSTRACT

Although traumatic events are usually associated with posttraumatic stress disorders (PTSD), many study have also reported that exposure to traumatic events might also lead to psychological growth, known as posttraumatic growth (PTG). The main aim of this study is to investigate whether resilience has a significant role in developing PTG among individuals who were exposed to Iraq wars in 2003. Baghdad Trauma History Screen (BTHS) and Connor–Davidson Resilience Scale (CD-RISC) were distributed to 450 postgraduate students from the University of Bahgdad, Iraq. After performing a factor analysis on the resilience scale, two factors of resilience can be included in the measurement. They are namely “adaptive capacity,” and “positive reception to change.” Multiple regression analyses showed that both factors of resilience have significant influence on PTG. The discussion parts mentioned that developing resilience might help the individuals to develop PTG after being exposed to traumatic events. Future research and practical implication were also suggested at the end of the paper.

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1. INTRODUCTION

Positive relationship between exposure to traumatic events and positive changes in life is studied and discovered by many [1]-[6]; it is addressed as Post Traumatic Growth (PTG). Theoretically, the term PTG refers to the positive psychological changes resulting from the conflict experienced by an individual who faced major life crises or traumatic events [7].

PTG has been discovered to be occurred after the exposure to several kinds of traumatic events, such as terrorism incidents [8]-[10], wars [11]-[13], natural disasters [14]-[16], and sexual assault [17],[18]. Thus, it is possible that PTG occurred among people who are exposed to prolonged wars with series of traumatic events, such as in Iraq.

Iraqi society has suffered from several wars for more than two decades; thus, it has become a ground for considerable research related to posttraumatic stress disorder (PTSD), which can be considered as a negative changes among individuals after traumatic events. A literature gap in understanding the nature of PTG in Iraq apparently exists because most of studies related to positive growth after traumatic events were not conducted in Iraq [19].

In search of the cause that might inflict PTG, many studies have been conducted. Most of them discovered that survivors of traumatic events reported that their PTG covered five factors of their lives, namely, their relationship with other people (relating to others), perception of themselves (personal strength), outlook of life (new possibilities), spiritual beliefs (spiritual change), and appreciation of life (appreciation of life) [20].

The concept of PTG has often been confused with the concept of resilience because as much as 50% to 60% of survivors reported positive changes after exposure to traumatic events [21],[22]. Several theoretical assumptions about the relationship between resilience and PTG have been proposed [23]-[25], and theoretical distinctions between PTG and resilience have been carefully noted by Tedeschi and Calhoun (2004) [15]. Thus, PTG and resilience are two different but interrelated elements that occur around an exposure to traumatic experiences.

The concept of resilience exceeds the concepts and varies due to differences in resilience perceived by the scientific community [26],[27]. Accordingly, the concept of resilience is perhaps the topic that is most related to how individuals recover and flourish after traumatic events. Primarily, resilience has been the factor used by researchers in dealing with early childhood and adolescence.

Related to the aforementioned statements about resilience and PTG, the present study investigates the interrelationship between resilience and PTG among Iraqi students who were exposed to traumatic events, especially after the last wars in 2003. The occurrence of PTG after exposure to traumatic events is examined, as well as the role of resilience in imposing and increasing PTG, which is followed by the comparison between individuals with high and low resilience in terms of PTG. The aforementioned steps were taken to answer the following question: Is there any significant influence of resilience on PTG? The answer is nationally significant for Iraq, because there are many victims of the wars who did not experience PTG, and the knowledge obtained can be used as a foundation to develop resilience among Iraqi students in order to stimulate the occurrence of PTG.

In the context of the present study, the post-war situation in Iraq is considered a traumatic event. The U.S. occupation of Iraq in 2003 induced all types of terrorism and violence that affected Iraqi society [28]. The same study likewise reported that numerous civilians died when they were exposed to the U.S. Army that used aircraft, tanks, and other weapons to kill any suspected insurgents who used improvised explosive devices, suicide bombs, and other kinds of traumatic violence have been exposed to most of the Iraqis, including one of the authors of this paper.

2. LITERATURES

Post Traumatic Growth

Several studies have been added to the PTG body of knowledge since Tedeschi and Calhoun (1996) introduced PTG [20]. Researchers on positive growth have begun to settle on terms that comprehensively capture the relationship between growth and trauma, similar to the examination of posttraumatic growth after a disease, including cancer [29]-[31], amputation [32], heart disease [33]-[35], and breast cancer [36]-[38].

On the other hand, researchers have used various terms in the literature for the positive changes and identified the facets of growth after adversity, such as benefit finding or perceiving construing [21],[39],[40]. For instance, the terms used included thriving [41],[42], positive by-products [43], adversarial growth [22], positive psychological changes [44], and stress-related growth [45]-[47].

Several factors have been linked to PTG, as it is discovered that they allowed PTG more likely to occur, such as optimism [21], positive reinterpretation [45], gender [21],[48], and acceptance coping [49]. PTG is also linked to many other themes, such as experience of meaningful engagement and appreciation of life [50], and negative post-trauma effects [5]. Accordingly, similar results have been reported from other studies about many types of traumatic events, such as terrorism incidents [8]-[10], wars [11]-[13], natural disasters [14]-[16], and sexual assault [17]-[18].

Resilience

Resilience refers to adaptability, hardiness, and invincibility [51]-[53]. A specific definition or description of resilience and its operation and measure of its constructs key are lacking [53]. Lazarus (2004) emphasized the importance of resilience with regard to the ability of people to overcome adversity and suffering or difficulty and to adapt to and face changes, thus helping individuals overcome the pressures and threats in the future [54].

Nevertheless, some definitions of resilience came closer to the definition of PTG. For instance, Masten (2001) described resilience as the successful adaptation or optimal developmental outcomes despite exposure to environmental threats or adversity after a considerable struggle [55]. Henderson (2007) defined resilience as the ability to bounce back from adversity [56]. Almedom and Glandon (2007) clarified resilience as the ownership of selective strengths to help individuals survive despite their exposure to stressful and difficult situations [57]. Zautra (2009) divided resilience into two parts, with one showing resilience as the ability of individuals to deal with adversity and recover, and the other describing resilience

as the ability to continually achieve goals and progress toward a positive future despite pressures and the ability to cope effectively when faced with adversity [58].

Distinction between PTG and Resilience

Distinction between PTG and resilience was studied only by several researchers, and the studies dated back to more than 10 years before this paper is written. Tedeschi and Calhoun (2004) carefully noted the difference between PTG and resilience through theoretical distinctions [15]. Individuals are described as resilient if they have the ability to thrive although immersed in extremely stressful and difficult situations, such as poverty and abuse. Resilience has often been investigated in populations with high-risk children growing up in adverse communities; resilient children demonstrated less detrimental developmental effects than others [59].

Accordingly, Harvey (2007) examined the resilience among adults and explained the difference between resilience and recovery from traumatic events and crises [60]. Recovery occurs when an individual, who is initially thrown off balance through a traumatic event, can return to his/her pre-trauma levels of performance after the event. Recovery likewise occurs when an individual is unscathed by a trauma and can use his/her resources to deal with stressful events and crises.

Thus, PTG and resilience are different in two important aspects. First, a facet of resilience is that an individual has the ability to preserve his/her initial level of performance after the trauma. In contrast, an individual who has PTG exceeds the level of pre-trauma performance in at least one factor of PTGI. Second, a resilient individual has the ability to recover from adversity and stress without high levels of struggle with traumatic events, although struggle with traumatic events is important and central to PTG. Distress and the crumbling of the core assumptions of an individual are necessary to build new and stronger foundations.

Relationship between PTG and resilience

As mentioned in the aforementioned subsections, both PTG and resilience refer to constructs that result in positive adaptation after an individual experienced a traumatic event. However, the literature indicated several controversial assumptions regarding the relationship between the two constructs. Moreover, PTG and resilience have been taken as similar to one another [8].

On the other hand, Westphal and Bonanno (2007) objected to the previous notion and suggested that PTG and resilience should be viewed as two independent constructs [25]. They likewise argued that resilient individuals are highly unlikely to engage in the type of meaning-making to behaviors that are associated with PTG because they do not struggle to the same extent as other, more traumatized individuals would. Therefore, trauma survivors who are highly resilient will not engage in the cognitive processing that is necessary for PTG to occur [25].

Relationship between resilience and PTG is extremely important and could have significant implications for preventive interventions and trauma counseling [61]. However, many researchers have failed to distinguish between individuals with low, moderate, or high resilience and their relationship with PTG. Steele and Kuban (2011) examined the relationship between resilience and PTG among resilient children who initially benefitted from the support of their families or others, and allowed traumatized children to benefit by telling their story about the trauma [62]. The research findings indicated that resilient children who benefitted from repressive coping preferred to focus on the present and construct their trauma narratives within a new contextual framework to help adults address the critical components of trauma care, making it more manageable for adults, and thus result in PTG.

Another complicated area of research that is associated with the complex relationship between PTG and resilience is that of resoluteness. The relationship between resoluteness and resilience is unclear. Often, resoluteness is either equated with resilience and viewed as one of the factors of resilience [63], or considered an independent construct [15]. Studies on resoluteness generally indicate that this personality trait is positively associated with PTG [22].

The results illustrated that the understanding of the relationship between resilience and PTG is limited, and no empirical research thus far has attempted to shed more light on this association. The complexity of this situation prompts a more in-depth investigation on this topic. To the knowledge of the researcher, this study is the first to attempt to provide an insight into the topic.

Theoretical Framework

Theoretically, resilience in an individual contributes to positive changes after a traumatic event. For individuals who have been exposed to traumatic events, positive changes due to adequate resilience mostly

occurred in the area of interpersonal relationship, self-perception, spiritual values, and perspective toward life. Furthermore, both PTG and resilience require social support. Resilience has a significant role in adaptation and transformation, which can be translated as PTG in the context of this study.

Therefore, the theory of PTG by Tedeschi and Calhoun (2004) is used as the basis for the present research because the elements they mentioned, such as management of emotional distress, self-disclosure, social support, life narrative, and enduring distress [15], are related to the elements of resilience [54],[56],[64]. Moreover, a personality trait such as resoluteness was discovered to be positively associated with PTG and resilience [22].

3. RESEARCH METHOD

Samples

450 Undergraduate students who are studying at science and humanities colleges at Baghdad University in academic year 2013–2014 were selected as the population of the present study. Four colleges were randomly selected from the 24 colleges in the University of Baghdad, namely, the College of Political Science (1,061 students), College of Media (1,366 students), College of Science (2,309 students), and College of Veterinary Medicine (447 students). According to a table by Krejcie and Morgan (1970), at least 370 samples should be extracted to represent the total number of students, which is 5,183.

Instruments

In order to identify the presence of traumatic events among the students, an Arabic and English version of the Baghdad Trauma History Screen (BTHS) (Jaber, 2012) was selected as the appropriate scale for the Iraqi environment [66]. Permission to employ the instrument in the current study was obtained from the author of the scale. The scale consisted of a series of traumatic events (e.g., chemical attack, car bombing, and attempt to kill) that were experienced by the Iraqi society as a result of previous wars. The BTHS included 20 traumatic event rows and six response columns for each event, in which the participants were asked to indicate if they were exposed personally and/or in close proximity to traumatic events.

Posttraumatic Growth Inventory (PTGI), Tedeschi & Calhoun (1996) was adopted to assess the positive growth reported by individuals who were exposed to traumatic events [20]. The PTGI has been used in several studies. This scale was used to identify the positive changes that resulted from traumatic events [18],[67],[68]. Permission from the authors to translate this scale into the Arabic language and use it in the current study was obtained and a pilot study was conducted for the purpose of the present study, it demonstrated high internal consistency ($\alpha = 0.90$) and high test–retest reliability (0.71). After a factor analysis on the PTGI scale, two factors of PTGI are considered to be taken in this study. The first factor is called “strength of ego,” and the second factor is called “positive relationship with others.”

In order to collect the resilience data, Connor–Davidson Resilience Scale (CD-RISC) (Conner & Davidson, 2003) has been adapted for this study [69]. The CD-RISC has been used by several studies to assess the levels of resilience of individuals [13],[70]. It has a high internal consistency ($\alpha = 0.89$) and moderate test–retest reliability (0.87). After performing a factor analysis on the resilience scale, two factors of resilience can be included in the measurement. They are namely “adaptive capacity,” and “positive reception to change.”

4. RESULTS AND ANALYSIS

Multiple regression analysis is performed to test the above hypothesis. The results are shown in Tables 1, 2 and 3.

Table 1. Model summary of resilience on PTG

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.551 ^a	.304	.301	15.23441

a. Predictors: (Constant), 'adaptive capacity' and 'positive reception to change' factors of resilience.

Table 2. Influence of resilience on PTG

Model	Sum of Squares	Df	Mean Square	F	Sig.
1 Regression	45327.553	2	22663.776	97.652	.000 ^b
Residual	103742.938	447	232.087		
Total	149070.491	449			

a. Dependent Variable: PTG

b. Predictors: (Constant), 'adaptive capacity' and 'positive reception to change' factors of resilience.

Table 3. Coefficients of resilience factors 'adaptive capacity' and positive receptive to change

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	27.54	2.87		9.57	0.000
1 'adaptive capacity'	.593	.063	.455	9.46	0.000
positive receptive to change	.562	.186	.145	3.01	0.003

a. Dependent Variable: PTG

Given that both factors of resilience significantly affect the PTG of Iraqi students who are exposed to traumatic events, it can be seen that a person who develops a stronger resilience likewise develops a higher tendency to experience PTG (adjusted R square = 0.304, $p = 0.000$, $B = 0.455$, and $\beta = 0.551^a$). In other words, resilience significantly predicts PTG among the samples of this study. The findings likewise imply that possessing the two factors of resilience (adaptive capacity and positive relationship with others) can increase the possibility for an individual to develop PTG after experiencing a traumatic event.

Tedeschi and Calhoun (1995) stated that PTG would not occur if the person should exhibit resilience and return to a healthy functioning before moving toward a highly effective subsequent functioning [24]. They believed that the positive results of traumatic events depended on the combination of several variables, including resilience. In other words, resilience stimulates PTG and help individuals return to a normal life after experiencing a traumatic event. These assumptions have been confirmed by the findings of this study.

However, Tedeschi and Calhoun (2004) yielded different results. Despite agreeing that PTG was different from resilience, they reported that a resilient individual would be unlikely to develop a significant degree of PTG [15]. A person with PTG tends to exhibit resiliency when facing traumatic events because PTG results from the struggles with adversity of an individual. Therefore, resilience does not require PTG because such concept refers to the successful return of an individual to a baseline performance or to his/her successful adaptation after going through challenging and difficult circumstances. Nonetheless, Tedeschi and Calhoun argued that a connection might form between PTG and resilience despite their differences.

Findings of this study have been supported by Steele and Kuban (2011), who had investigated the influence or role of resilience on PTG among traumatized resilient children and the benefit of narrating their traumatic experiences [62]. They reported that resilient children benefitted from repressive coping, preferred to focus on the present, and constructed their trauma narrative within a new contextual framework, which helped adults address the critical components of trauma care and caused these children to develop PTG.

5. CONCLUSION

Findings of the present study can enlighten stakeholders in developing Iraq. This study can likewise help students who have been exposed to traumatic events to improve their resilience and PTG, which in turn can improve their academic performance and social life.

Furthermore Ministry of Higher Education and Scientific Research, the Ministry of Education, and the Ministry of Health and Social Care of Iraq are encouraged to establish centers, especially within health centers, that specialize in developing the resilience of individuals to reduce the number of people who are suffering from PTSD. The findings likewise suggest that the quality and the quantity of mental health services must be improved to develop the resilience of students. Students with high levels of resilience can achieve better academic performance and less chances of developing PTSD or other negative effects of traumatic events.

6. PRACTICAL IMPLICATIONS

This study does not investigate the other variables that can affect the occurrence of PTG. Moreover, the scope of this study is limited to students from Iraqi universities. Future studies must employ larger sample sizes from broader social settings to generate new findings.

Future studies must likewise adopt other research methods and use the same sample size and characteristics to explore further the PTG and resilience of Iraqi students. The development of training programs for resilience that can trigger and maximize PTG must be investigated as well. The cultural differences in reporting PTG provide an interesting topic that must be investigated further in future studies.

The inter-gender differences in terms of PTG must be urgently examined. Although the findings of this study indicate significant differences between males and females in terms of PTG, several studies have suggested otherwise. Therefore, the differences between males and females in terms of their development of resilience and PTG must be thoroughly investigated. This study does not consider other factors that may affect the variables that are investigated in this study, such as self-concept, social support, self-esteem, personality, and event type. Therefore, future studies must consider these factors in their investigation of resilience and PTG.

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