Investigation of Predictors of Post-Traumatic Growth in University Students with Traumatic Experiences

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Contribution

Traumatic experiences differ from highly stressful events due to their characteristics such as threatening bodily integrity and personal exposure to death. Therefore, these events can impact human psychology and well-being. For years, the adverse effects of trauma have been studied in the field of psychology and psychiatry (Tedeschi et al., 1998). However, a growing body of literature has shown that some people may be more resilient than the pre-traumatic period (Groleau et al., 2013; Lindstrom et al., 2013, Park et al., 2012).

Tedeschi and Calhoun (2004) constructed a holistic model that includes personal, social, and trauma-related factors to explain the phenomenon, termed "post-traumatic growth (PTG)". According to this model people have core beliefs about themselves, others, and life that guide people and help them make sense of life. A traumatic event can shake the structure of these assumptions, thus creating the need for restructuring. PTG emerges from the restructuring process. According to the model, growth is a highly personal process rather than a direct outcome that can start with the disruption of core beliefs rather than the event itself (Calhoun et al., 2010). Lindstrom et al. (2013), found a strong significant positive relationship between PTG and disruption of core beliefs. Similar results have been found in cross-sectional studies (Calhoun et al., 2010; Eze et al., 2020; Taku et al., 2015), and longitudinal ones (Danhauer et al.,2013; Ramos et al., 2018).

The theoretical model emphasizes that personal variables such as coping mechanisms are also important factors affecting PTG (Tedeschi & Calhoun, 2004). Coping with stress can be defined as the process of managing emotional equilibrium arising from events perceived as stressful in person-environment interaction (Lazarus & Folkman, 1984). Fisher et al. (2020) found that active and supportive strategies were positively associated with PTG, while avoidant strategies were negatively related to it. On the other hand, some research emphasizes that active, supportive, and avoidant strategies like denial were positively related to PTG (Lelorain et al., 2010; Park et al., 2012). These findings show that coping mechanisms are important predictors of PTG.

Contemporary PTG literature focuses on another important variable named "event centrality". Event centrality refers to the extent to which the memory of an event becomes a central part of people's identity, a fulcrum for understanding everyday life, and a turning point in life (Berntsen & Rubin, 2006). Groleau et al. (2013) found that event centrality was a significant predictor of PTG even after controlling for rumination and disruption of core beliefs. Similarly, Bernard et al. (2015) indicated that event centrality was a significant predictor of PTG. All of these findings show that coping mechanisms, event centrality, and disruption of core beliefs have crucial roles in the creation of PTG and therefore were used as variables in this study.

This study aimed to determine the predictors of PTG levels of university students with trauma experience in light of the current literature. Traumatic experiences are quite common around the world (Kessler et al., 2017) and can influence the academic experience and even university graduation in the long run (Lecy & Osteen, 2022). Therefore, understanding the predictors of PTG can shape psychological help, facilitate growth and well-being, and thus ensure the success and continuation of the higher education process. Event centrality is a relatively contemporary variable that has not been sufficiently studied in Turkish culture, therefore another aim is to understand its relationship with PTG in Turkish culture. According to these aims, a research question has been created; Do the disruption of core beliefs, stress coping mechanisms, and event centrality predict PTG?

Method

Participants In total, 462 adult university students who had a traumatic experience and did not have a mental illness were reached with the convenience sampling method. According to the sociodemographic characteristics, participants were predominantly aged between 20 and 21 (39.8%), and most were female (75.8%). The most frequent traumatic event that participants experienced was the unexpected loss of a loved one (36.6%) and most of the participants have experienced multiple traumatic events (63%). The perceived socioeconomic status was middle (64.1%). Almost half of the participants perceived the traumatic event as rather impactful (49.1%) and most of the participants experienced the event more than five years ago (38.5%). Procedure The data were collected online after receiving approval from the ethics committee. Participants who were volunteers were informed about the process and their rights. In cases where individuals were exposed to more than one traumatic event, the participants were asked to fill in the remaining data collection tools taking into account the event that most affected them. Measures A demographic information form including biological sex, age, perceived socioeconomic level, etc. was created by the researchers. Posttraumatic Growth Inventory was used to collect data about the criterion variable. The Centrality of the Event scale, the Core Beliefs Inventory, and the Stress Coping Scale were used for predictor variables. The reliability scores for the original scales ranged from .65 to .96, and for the current sample from .67 to .93 which went between acceptable or high reliability (Cortina, 1993). Moreover, confirmatory factor analysis was conducted for all data collection tools, and it was seen that the structure of the scales had a good fit in the current sample. Analysis A hierarchical regression analysis was conducted to determine the predictors of PTG via SPSS. All assumptions were checked before the main analysis such as multivariate outliers, and homoscedasticity of residuals, and no assumption was violated. The multicollinearity assumption is crucial for the analysis. No value was higher than .90 in the correlation matrix (Tabachnick & Fidell, 2007), and no VIF score was higher than 4 (Hair et al., 2010), which indicates no violation. Afterward, the core belief disruptions entered the model at the first stage, parallel with the literature. Following that, the coping mechanism was entered into the model in the second step. Lastly, the centrality of the event was entered.

Expected Outcomes

The primary analysis was conducted after the preliminary examination. The findings revealed that the overall model was significant ($F(6, 455) = 31.99$, $p<.05$) and explained 30% of the variance of the PTG ($R2=.30$). The unique contribution of each model was also evaluated. The first model significantly predicted the PTG ($\Delta F(2,459) = 6.60$, $p<.05$) meaning that core belief disruption significantly predicted PTG, and 3% of the variance was uniquely explained by it ($\Delta R2=.03$). According to the inventory adaptation (Haselden, 2014), the core belief disruption has two subfactors; core belief about oneself and others. In this research, only the disruption of core beliefs about oneself was a significant and positive predictor of PTG ($B=.13$, $t=3.16$, $p<.05$). The second model including different coping strategies was also significant ($\Delta F(3,456) = 57.45$, $p<.05$) and uniquely explained 27% of the variance ($\Delta R2=.27$). Specifically, the problem-oriented ($B=.32$, $t=6.15$, $p<.05$), social support ($B=.23$, $t=5.84$, $p<.05$), and avoidant coping strategies ($B=.32$, $t=5.95$, $p<.05$) contributed significantly to the prediction of the criterion variable. Moreover, all of them were positive predictors of PTG. The third model which included the centrality of the event was not significant ($\Delta F(1,455) = 1.35$, $p>.05$). Lastly, the unique contribution of the significant predictors was evaluated via squared semi-partial correlation. The values ranged from .02 to .06. The relatively strongest predictor of the criterion variable was problem-oriented and uniquely explained 6% of the variance. The other two coping strategies, social support, and avoidant uniquely explained 5% of the variance respectively. In conclusion, the different coping strategies and disruption of core beliefs about oneself significantly and positively predicted PTG levels of university students who experienced a traumatic event. On the other hand, disruption of core beliefs about others and the centrality of the event were not significant predictors in the Turkish sample.

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