

Research Paper

Exploring Resilience and Coping Strategies as Predictors of Post-Traumatic Growth and Post-Traumatic Stress among Trauma Survivors

Dimple Sain^{1*}, Dr. Anjali Sahai²

ABSTRACT

The present study aimed to explore the predictive role of resilience and coping strategies in post-traumatic growth (PTG) and post-traumatic stress (PTS). Grounded in positive psychology and trauma literature, the research focused on exploring how individual differences in psychological resilience and preferred coping mechanisms contribute to outcomes of traumatic experiences. A quantitative, cross-sectional research design was employed, utilizing standardized instruments including the Post-Traumatic Growth Inventory-Short Form (PTGI-SF), PTSD-8 scale, Brief Resilience Scale (BRS), and Coping Strategies Inventory-Short Form (CSI-SF). Data were collected from a sample (N=100) of individuals who had experienced trauma, with statistical analyses conducted to examine correlations and predictive relationships. Results revealed that resilience was significantly and negatively correlated with PTS ($r = -0.439, p < .01$), and maladaptive coping was significantly and positively correlated with PTS ($r = .238, p < .05$). However, neither resilience nor adaptive coping showed significant associations with PTG. Multiple regression analysis indicated that resilience and maladaptive coping significantly predicted PTS, accounting for 25.6% of the variance. These findings underscore the protective role of resilience and the risk associated with maladaptive coping in relation to post-traumatic stress. However, the absence of significant predictors for PTG highlights the complexity of factors that contribute to post-traumatic growth and the need for further investigation in this area.

Keywords: Resilience, Coping Strategies, Post-Traumatic Growth, Post-Traumatic Stress, Trauma Recovery, Predictors

Traumatic events, whether personal or collective, can profoundly impact psychological functioning. Traditionally, research has emphasized the negative consequences of trauma, particularly post-traumatic stress (PTS), characterized by symptoms such as intrusive thoughts, hyperarousal, and avoidance (American Psychiatric Association, 2013). However, growing evidence suggests that trauma may also lead to positive psychological changes—a phenomenon termed post-traumatic growth (PTG). PTG refers to positive

¹Master's in Clinical psychology student, Amity Institute of Psychology and Allied Sciences, Amity University, Noida

²Assistant Professor-I, Amity Institute of Psychology and Allied Sciences, Amity University, Noida

*Corresponding Author

Received: May 22, 2025; Revision Received: May 24, 2025; Accepted: May 27, 2025

Exploring Resilience and Coping Strategies as Predictors of Post-Traumatic Growth and Post-Traumatic Stress among Trauma Survivors

transformation following adversity, encompassing enhanced relationships, personal strength, appreciation for life, and a reevaluation of priorities (Tedeschi & Calhoun, 2004).

Responses to trauma vary significantly. While some individuals develop long-term psychological distress, others experience meaningful growth. This variation points to the importance of internal psychological resources, particularly resilience and coping strategies. Resilience, defined as the capacity to bounce back from adversity, plays a protective role in trauma recovery (Bonanno, 2004). Similarly, coping strategies—cognitive and behavioral efforts to manage stress—can either mitigate or exacerbate trauma outcomes (Lazarus & Folkman, 1984).

Adaptive coping, including problem-solving and emotional regulation, has been linked to PTG, while maladaptive coping, such as denial and avoidance, often correlates with increased PTS (Helgeson et al., 2006; Prati & Pietrantonio, 2009). Moreover, resilience and coping may interact to shape trauma outcomes. Resilient individuals are more likely to engage in adaptive coping, which may facilitate the cognitive processing necessary for growth. Despite these links, research examining the combined influence of resilience and coping on both PTG and PTS remains limited.

This study is grounded in the Posttraumatic Growth Model by Tedeschi and Calhoun (2004), which proposes that PTG results from cognitive and emotional efforts to rebuild one's worldview after trauma. The model highlights the disruption of core beliefs as a catalyst for growth, prompting deliberate rumination and meaning-making. Adaptive coping strategies support this process, helping individuals regulate distress and engage in constructive reflection. Resilience, while distinct from PTG, facilitates this growth-oriented processing by enabling emotional stability and cognitive flexibility.

The theoretical framework thus suggests a dual pathway: trauma can lead to either distress or growth depending on how individuals process their experiences. Resilience and coping are proposed as key predictors in determining this outcome. While PTG and PTS may co-occur, their underlying mechanisms differ—PTG often arises from deliberate reflection, whereas PTS is associated with uncontrollable, intrusive rumination.

Given the increasing global exposure to traumatic events—from pandemics to natural disasters—understanding these psychological mechanisms is crucial. This research aims to explore how resilience and coping strategies predict both PTG and PTS in individuals exposed to trauma, using validated tools such as the Brief Resilience Scale (BRS), Coping Strategies Inventory Short Form (CSI-SF), PTSD-8, and the PTGI-SF.

By examining these relationships, the study contributes to a more nuanced understanding of trauma recovery. Rather than focusing solely on pathology, it highlights the possibility of growth and adaptation. Such insights are vital for designing interventions that not only reduce distress but also foster positive transformation in the aftermath of adversity.

The Present Study

Several gaps in existing research warrant attention. First, most studies have examined resilience and coping in isolation, limiting insight into their combined effects. Second, there is insufficient exploration of these variables in non-clinical populations, where subclinical trauma responses may still exert meaningful psychological effects. Third, research has

Exploring Resilience and Coping Strategies as Predictors of Post-Traumatic Growth and Post-Traumatic Stress among Trauma Survivors

disproportionately focused on negative trauma outcomes, often overlooking the potential for growth. Finally, there is a need for greater use of validated, multi-dimensional, tools to assess PTG and PTS. The present study addresses these gaps by employing psychometrically sound instruments including the Post-Traumatic Growth Inventory (PTGI), PTSD Checklist for DSM-5 (PCL-5), Brief Resilience Scale, and a structured coping questionnaire.

Given the global rise in trauma exposure—due to war, violence, pandemics, and climate disasters—there is a pressing need for trauma-informed interventions that promote not only symptom reduction but also psychological growth. Understanding the predictive roles of resilience and coping can inform clinical practice, public health strategies, and community-based support systems aimed at facilitating recovery.

LITERATURE REVIEW

This chapter presents a comprehensive review of relevant literature on the key variables of the present study—resilience, coping strategies, posttraumatic growth (PTG), and posttraumatic stress (PTS). The literature has been systematically organized from the latest to older studies to provide a clear trajectory of research development in this area.

Zhao et al. (2024) conducted a study on 550 Chinese frontline nurses exposed to pandemic-related trauma. Using the PTSD-8 and Connor-Davidson Resilience Scale (CD-RISC), findings demonstrated that higher resilience significantly predicted PTG. A moderated mediation model showed that resilience reduced the strength of avoidance coping on PTSD outcomes.

Fernandez et al. (2024) examined 480 Spanish adolescents recovering from community violence using the Brief COPE and PTGI-SF. The researchers used SEM and found that approach-oriented coping, particularly active coping and emotional support, predicted PTG. Sample included both male and female students aged 14–18.

Kumar & Mishra (2024) studied 300 Indian COVID-19 survivors and explored the impact of resilience and coping on mental health outcomes. Using cross-sectional data and multiple regression, they found that resilience fully mediated the relationship between coping style and PTG. Higher emotion-focused coping correlated with more severe PTSD symptoms.

Jiang et al. (2023) examined the role of resilience in mediating the relationship between trauma exposure and PTG among healthcare workers in China during the COVID-19 pandemic. Using a sample of 480 participants and a cross-sectional design, the study utilized the Connor-Davidson Resilience Scale and the PTGI. Results suggested that resilience significantly mediated the effects of trauma on PTG, providing evidence for resilience as a protective factor.

Singh and Sharma (2023) conducted a quantitative study with 320 Indian college students to assess coping mechanisms in trauma recovery. The study applied the Brief COPE and PTSD Checklist to assess stress levels and strategies used. Findings revealed that problem-focused coping was associated with higher PTG, whereas avoidance strategies correlated with elevated PTS symptoms.

Exploring Resilience and Coping Strategies as Predictors of Post-Traumatic Growth and Post-Traumatic Stress among Trauma Survivors

Bai et al. (2023) investigated the associations between trauma exposure, coping strategies, and PTG among 365 adolescent flood survivors in China. The authors used regression analyses and found that approach-oriented coping significantly predicted PTG, while emotion-focused strategies predicted PTS.

Kim & Lee (2022) studied trauma survivors from natural disasters in South Korea. The researchers used structural equation modeling with a sample of 500 adults. They found that emotion-focused coping was less effective in reducing PTSD symptoms than problem-focused coping. Resilience, measured using the Brief Resilience Scale, partially mediated these effects.

Patel & Das (2022) explored the role of resilience in 250 survivors of domestic violence in urban India. A correlational design showed that higher levels of resilience significantly predicted PTG. Data was collected using the PTGI-SF and the Brief Resilience Scale.

Ortiz et al. (2022) examined 400 Latin American refugees and found that trauma-related stress and avoidance coping predicted higher PTSD symptoms, while resilience and community support facilitated PTG.

Martinez et al. (2021) performed a longitudinal study on 600 U.S. veterans to investigate changes in coping strategies and resilience over time and their effects on PTG. Over 12 months, data revealed that adaptive coping and resilience were stable predictors of PTG, while maladaptive coping predicted persistent PTSD symptoms.

Chaudhry & Khan (2021) conducted a mixed-methods study among 150 adolescents exposed to community violence in Pakistan. They found that high resilience, particularly through familial and cultural support, moderated the effects of trauma. Interviews complemented quantitative measures, providing insights into culturally specific coping.

Banerjee & Saha (2021) used a cross-sectional design with 210 Indian healthcare workers during the pandemic and found that resilience and problem-solving coping were significantly associated with lower PTSD symptoms.

Nguyen & Tran (2020) studied the impact of coping flexibility on PTG among Vietnamese flood survivors ($n = 430$). Using hierarchical regression analyses, they found that individuals who could switch between coping strategies depending on the situation showed better growth outcomes. The study utilized the Coping Flexibility Questionnaire and PTGI.

Hoffman et al. (2020) analyzed the impact of COVID-19-related trauma on mental health workers. The sample ($n = 300$) was assessed on the PTSD Checklist and Brief COPE. Emotion regulation and resilience predicted lower PTSD symptoms.

Rodriguez et al. (2019) assessed trauma-exposed Latinx immigrants ($n = 370$) in the U.S. Using a correlational design and standardized tools (PTGI-SF, PCL-5, and Brief COPE), the study found that adaptive coping mechanisms like planning and positive reframing predicted PTG. Avoidance coping predicted PTSD.

Exploring Resilience and Coping Strategies as Predictors of Post-Traumatic Growth and Post-Traumatic Stress among Trauma Survivors

Mehta & Joshi (2019) studied 200 Indian university students who experienced bereavement. Using path analysis, the authors demonstrated that resilience mediated the effect of trauma on PTG. Emotion-focused coping weakened this relationship.

Farahani & Azad (2019) surveyed 300 Iranian students and found that religious coping and cognitive restructuring contributed to better PTG, while denial predicted higher PTS symptoms.

Zhou et al. (2018) conducted a cross-sectional study with 450 survivors of the Sichuan earthquake in China. The researchers used the Posttraumatic Growth Inventory and the Brief COPE to evaluate the participants' responses. Their findings revealed that both resilience and positive coping mechanisms such as acceptance, humor, and seeking emotional support significantly predicted higher PTG scores. In contrast, avoidance-based coping strategies were associated with elevated PTS symptoms, demonstrating the dual role of coping types.

Paterson & Glynn (2018) explored coping strategies among 280 female survivors of interpersonal violence in Canada. This study implemented a mixed-methods approach using quantitative surveys and semi-structured interviews. Findings emphasized the buffering role of religious and social coping in reducing PTS symptoms and fostering emotional healing. The participants who engaged in spiritual practices and built strong community ties showed marked improvements in psychological outcomes.

Kumar & Bhatt (2018) conducted a structural equation modeling study with 270 trauma-exposed college students in North India. Using instruments such as the Brief Resilience Scale and PTGI-SF, the study concluded that humor-based coping and strong resilience were significant predictors of PTG. Their model explained a considerable proportion of variance in PTG, highlighting the utility of internal coping mechanisms.

Mestre et al. (2017) investigated the moderating role of resilience in the relationship between maladaptive coping and PTS symptoms among 310 Spanish adolescents exposed to familial conflict. The study used moderation analysis and found that resilience buffered the negative effects of avoidant coping, thereby preventing the escalation of PTS symptoms.

Liu & Zhao (2015) surveyed 380 secondary school students in Nepal affected by earthquakes. Using the PTSD Checklist, the Brief COPE, and PTGI, they found that resilience, acceptance, and planning were robust predictors of PTG. On the contrary, denial and behavioral disengagement were positively associated with PTS, suggesting the critical need for promoting proactive coping.

Davidson et al. (2015) studied 300 police officers in the United Kingdom to explore the buffering role of resilience in high-risk occupations. Using a correlational design with standardized scales, the study found that officers with higher resilience and active coping scores exhibited significantly greater PTG. The findings underline the essential role of training programs to foster resilience in trauma-prone professions.

Stevenson et al. (2014) investigated trauma recovery processes in 240 cancer survivors in Australia. Employing a longitudinal design, they emphasized that meaning-making, emotional disclosure, and psychological flexibility were critical factors in fostering PTG.

Exploring Resilience and Coping Strategies as Predictors of Post-Traumatic Growth and Post-Traumatic Stress among Trauma Survivors

Lack of adaptive coping strategies was associated with prolonged and chronic PTS symptoms.

The reviewed literature clearly supports the role of resilience and adaptive coping strategies in enhancing PTG and reducing PTS symptoms. Studies from diverse populations and geographical settings consistently demonstrate the mediating and moderating effects of resilience and coping. These findings highlight the importance of incorporating psychological resilience and functional coping strategies in trauma-informed interventions.

METHODOLOGY

Aim

The present study aimed to investigate the predictive roles of resilience and coping strategies in explaining levels of PTG and PTS among individuals exposed to trauma.

Rationale

While trauma often results in psychological distress, many individuals also experience positive changes termed post-traumatic growth (PTG). Understanding why some individuals grow while others develop post-traumatic stress (PTS) is crucial for trauma-informed intervention. Resilience one's ability to recover from adversity and coping strategies methods used to manage stress have been identified as significant factors in trauma outcomes. Adaptive coping and high resilience are generally associated with greater PTG and reduced PTS, while maladaptive coping predicts negative psychological consequences. This study examines how these psychological factors jointly influence PTG and PTS to inform effective trauma recovery approaches.

Sample

The sample comprised 100 adults aged 18–60 years, selected using purposive sampling. Participants were individuals who Self-reported experience of a significant traumatic event related to childhood, interpersonal relationship, or severe road accident. Recruitment was carried out through social media, university mailing lists, and online mental health forums.

Inclusion Criteria:

- Age 18–60 years
- Self-reported experience of a significant traumatic event related to childhood, interpersonal relationship, or severe road accident.
- Fluency in English
- Consent to participate voluntarily

Exclusion Criteria:

- Diagnosis of current psychosis or severe cognitive impairment
- Inability to provide informed consent
- Currently undergoing crisis intervention
- History of a significant traumatic event (e.g. Childhood trauma, relationship violence, road accident)
- Fluent in English
- Voluntary informed consent

Exploring Resilience and Coping Strategies as Predictors of Post-Traumatic Growth and Post-Traumatic Stress among Trauma Survivors

Objectives

1. To investigate the relationship between resilience and post-traumatic growth (PTG).
2. To assess the association between resilience and post-traumatic stress (PTS).
3. To examine the relationship between adaptive coping strategies and PTG.
4. To examine the relationship between maladaptive coping strategies and PTS.
5. To determine the predictive power of resilience and coping strategies in relation to PTG and PTS.

Hypotheses

- H1: Higher resilience will be positively associated with PTG.
- H2: Higher resilience will be negatively associated with PTS.
- H3: Adaptive coping strategies will be positively associated with PTG.
- H4: Maladaptive coping strategies will be positively associated with PTS.
- H5: Resilience and coping strategies will significantly predict levels of PTG and PTS.

Variables

Independent Variables

- **Resilience:** Measured using the Brief Resilience Scale (BRS), reflecting an individual's capacity to recover from adversity.
- **Coping Strategies:** Assessed via the Coping Strategies Inventory – Short Form (CSI-SF), which includes:
 - *Adaptive Coping:* Strategies such as problem-focused and emotion-focused engagement.
 - *Maladaptive Coping:* Includes disengagement-based approaches like avoidance and denial.

Dependent Variables

- **Post-Traumatic Growth (PTG):** Measured using the PTGI-SF.
- **Post-Traumatic Stress (PTS):** Measured using the PTSD-8 scale.

Tools Used

1. **Posttraumatic Growth Inventory – Short Form (PTGI-SF):** The PTGI-SF is a 10-item self-report scale developed by Cann et al. (2010) to assess positive psychological changes following trauma. Items reflect five domains of posttraumatic growth: relating to others, new possibilities, personal strength, spiritual change, and appreciation of life. Responses are rated on a 6-point Likert scale (0 = “I did not experience this change” to 5 = “I experienced this change to a very great degree”). Higher scores indicate greater perceived growth. The PTGI-SF has demonstrated strong internal consistency ($\alpha = .90$) and is widely used in trauma research.
2. **PTSD-8:** Developed by Hansen et al. (2010), the PTSD-8 is an 8-item screening tool based on the DSM-IV criteria for posttraumatic stress disorder. It includes items assessing the three core symptom clusters: intrusion, avoidance, and hyperarousal. Participants rate symptom frequency on a 4-point Likert scale ranging from 1 (“not at all”) to 4 (“very often”). Total scores help identify individuals with probable PTSD. The tool shows strong psychometric properties and is efficient for use in both clinical and community settings.
3. **Brief Resilience Scale (BRS):** The BRS, developed by Smith et al. (2008), is a 6-item scale designed to assess an individual's ability to bounce back or recover from stress. Items are rated on a 5-point Likert scale (1 = “strongly disagree” to 5 =

Exploring Resilience and Coping Strategies as Predictors of Post-Traumatic Growth and Post-Traumatic Stress among Trauma Survivors

“strongly agree”), with some items reverse-scored. Higher scores reflect greater resilience. The BRS has demonstrated good internal consistency ($\alpha = .80-.91$) and is a reliable measure of trait resilience in both clinical and non-clinical populations.

- 4. Coping Strategies Inventory – Short Form (CSI-SF):** The CSI-SF is a 16-item self-report questionnaire adapted by Addison et al. (2007) from the original CSI to evaluate coping responses. It assesses four primary coping strategies: problem solving, cognitive restructuring, social support, and express emotions. Responses are recorded on a 5-point Likert scale ranging from 1 (“not at all”) to 5 (“very much”). Higher scores indicate more frequent use of that coping strategy. The CSI-SF has shown good reliability ($\alpha = .76-.85$) and is suitable for research on stress and coping in diverse populations.

Procedure

Ethical Approval and Consent

Ethical approval for the study was obtained from the Amity Institute of Psychology and Allied Sciences, Amity University, Noida. The study followed all ethical guidelines in accordance with the principles outlined by the Institutional Ethics Committee. Participants were clearly informed about the purpose of the study, the voluntary nature of their participation, their right to withdraw at any stage without any consequences, and the assurance of anonymity and confidentiality of their responses. Informed consent was obtained electronically through the first section of the web-based survey form.

Recruitment and Data Collection

Participants were recruited online through mental health forums, university emails, and social media platforms. The study link directed them to a Google Form consisting of demographic questions and four standardized scales. Completion time was estimated at 20–25 minutes. Data were stored securely with restricted access.

RESULTS AND DATA ANALYSIS

This section presents the key findings of the study using both descriptive and inferential statistical techniques. Analyses were conducted using IBM SPSS software. Descriptive statistics were computed for demographic variables and the main study variables: resilience, adaptive and maladaptive coping, post-traumatic growth (PTG), and post-traumatic stress (PTS). To explore relationships among variables, Pearson product-moment correlations were calculated. Finally, multiple regression analysis was employed to assess the predictive capacity of resilience and coping strategies on PTS.

Descriptive Statistics

Initial screening for normality indicated that skewness values ranged between -0.598 and -0.044, and kurtosis values ranged from -0.410 to 0.565. These values fell within the range of ± 2 for skewness and ± 7 for kurtosis (West, Finch, & Curran, 1995), suggesting that the assumption of normality was met. Therefore, parametric tests were deemed appropriate for further analysis.

Exploring Resilience and Coping Strategies as Predictors of Post-Traumatic Growth and Post-Traumatic Stress among Trauma Survivors

Table 1: Descriptive Statistics

| Variable | Mean | SD | Min | Max | Skew | Kurtosis |
|---------------------------|-------|-------|------|------|--------|----------|
| PTG | 32.53 | 9.330 | 8 | 49 | -0.450 | -0.410 |
| PTS | 20.76 | 4.682 | 8 | 31 | -0.509 | 0.284 |
| Maladaptive Coping | 26.18 | 2.996 | 20 | 34 | -0.131 | -0.359 |
| Adaptive Coping | 26.37 | 4.390 | 13 | 36 | -0.598 | 0.565 |
| Resilience | 2.993 | 0.633 | 1.67 | 4.67 | -0.044 | -0.380 |

Note. PTG, Post Traumatic Growth, PTS, Post Traumatic Stress

Further Pearson correlations and regression analysis were conducted on these variables to examine their underlying associations.

Correlation Analysis

Pearson’s correlation analysis was conducted to evaluate associations among resilience, coping strategies, PTG, and PTS. Results revealed a significant negative correlation between resilience and PTS ($r = -0.439, p < .01$), supporting Hypothesis 2. This finding indicates that individuals with higher levels of resilience tend to report fewer symptoms of post-traumatic stress.

Contrary to Hypothesis 1, resilience was not significantly associated with PTG ($r = 0.196, p = .060$), although the correlation was in the expected positive direction. This suggests that while resilience may have some influence on PTG, the relationship was weak and not statistically significant. Future studies may consider exploring potential mediating or moderating variables that could explain this association, such as personality traits, social environment, or perceived meaning-making after trauma.

As hypothesized (H4), maladaptive coping showed a significant positive correlation with PTS ($r = 0.238, p < .05$), indicating that increased reliance on maladaptive coping strategies is associated with higher post-traumatic stress. However, adaptive coping did not significantly correlate with either PTG ($r = 0.146, p = .163$) or PTS ($r = -0.039, p = .714$). These findings suggest that adaptive coping mechanisms may not be as central to the development of PTG or reduction of PTS as initially hypothesized.

Furthermore, PTG did not show significant associations with any of the predictor variables, challenging some of the expected relationships outlined in the hypotheses. These outcomes provide partial support for the proposed model, particularly highlighting the role of resilience and maladaptive coping in relation to PTS.

Table 2. Correlations between Study Variables

| | | PTG | PTS | Maladaptive Coping | Adaptive Coping | Resilience |
|------------|---------------------|-------|-------|--------------------|-----------------|------------|
| PTG | Pearson Correlation | 1 | 0.055 | 0.041 | 0.146 | 0.196 |
| | Sig. (2-tailed) | | 0.600 | 0.697 | 0.163 | 0.060 |
| | N | 100 | 100 | 100 | 100 | 100 |
| PTS | Pearson Correlation | 0.055 | 1 | 0.238* | -0.039 | -0.439** |
| | Sig. (2-tailed) | 0.600 | | 0.022 | 0.714 | <0.001 |
| | N | 100 | 100 | 100 | 100 | 100 |

Exploring Resilience and Coping Strategies as Predictors of Post-Traumatic Growth and Post-Traumatic Stress among Trauma Survivors

| | | PTG | PTS | Maladaptive Coping | Adaptive Coping | Resilience |
|---------------------------|---------------------|------------|------------|---------------------------|------------------------|-------------------|
| Maladaptive Coping | Pearson Correlation | 0.041 | 0.238* | 1 | 0.078 | 0.028 |
| | Sig. (2-tailed) | 0.697 | 0.022 | | 0.456 | 0.787 |
| | N | 100 | 100 | 100 | 100 | 100 |
| Adaptive Coping | Pearson Correlation | 0.146 | -0.039 | 0.078 | 1 | -0.088 |
| | Sig. (2-tailed) | 0.163 | 0.714 | 0.456 | | 0.403 |
| | N | 100 | 100 | 100 | 100 | 100 |
| Resilience | Pearson Correlation | 0.196 | -0.439** | 0.028 | -0.088 | 1 |
| | Sig. (2-tailed) | 0.060 | <0.001 | 0.787 | 0.403 | |
| | N | 100 | 100 | 100 | 100 | 100 |

*.Correlation is significant at the 0.05 level (2-tailed)

**Correlation is significant at the 0.01 level (2-tailed)

Note. PTG, Post Traumatic Growth, PTS, Post Traumatic Stress.

Regression Analysis

Given the significant correlations between PTS, resilience, and maladaptive coping, a multiple linear regression analysis was conducted to evaluate their predictive power on PTS. Adaptive coping and PTG were excluded from the regression model due to their non-significant bivariate associations.

The regression model was statistically significant, $F(2, 90) = 15.443, p < .001$, explaining 25.6% of the variance in PTS ($R^2 = 0.256$). Resilience emerged as a significant negative predictor of PTS ($\beta = -0.446, p < .001$), confirming its protective role. Maladaptive coping was a significant positive predictor ($\beta = 0.251, p = .007$), indicating that individuals engaging in higher levels of maladaptive coping report more severe symptoms of PTS.

These findings reinforce the importance of strengthening resilience and minimizing maladaptive coping mechanisms in trauma-exposed populations to reduce the likelihood of enduring stress-related symptoms.

Table 3. Coefficients of the Regression Model Predicting Post Traumatic Stress

| Model | | Unstandardized B | Coefficients Std. Error | Standardized Coefficients Beta | t | Sig. |
|--------------|------------|-------------------------|--------------------------------|---------------------------------------|----------|-------------|
| 1 | (Constant) | 20.393 | 4.204 | | 4.851 | <0.001 |
| | | 0.392 | 0.142 | 0.251 | 2.574 | 0.007 |
| | | -3.302 | 0.673 | -0.446 | -4.904 | <0.001 |

a. Dependent Variable: PTS

Note. PTS, Post Traumatic Stress.

DISCUSSION

This study aimed to examine the predictive roles of resilience and coping strategies—both adaptive and maladaptive—in relation to post-traumatic growth (PTG) and post-traumatic stress (PTS) among trauma-exposed individuals. The findings were analysed using both correlational and multiple regression techniques to determine not only the direction and strength of associations but also the extent to which these psychological variables could predict trauma-related outcomes. This chapter discusses these findings in relation to existing literature, explores possible theoretical implications, and outlines future directions.

The results demonstrated that resilience was significantly and negatively correlated with PTS ($r = -0.439, p < .01$). This finding is consistent with a large body of previous research supporting the protective role of resilience in trauma adaptation and recovery. Resilience, broadly defined as the ability to bounce back from adversity and maintain or regain psychological well-being, appears to function as a psychological buffer that mitigates the impact of traumatic stress. For example, research by Hu et al. (2015) found that individuals with higher levels of resilience reported fewer symptoms of PTSD following exposure to traumatic events. Similarly, in a study by Banerjee and Saha (2021), resilience was identified as a significant negative predictor of PTSD symptoms among healthcare workers during the COVID-19 pandemic. These studies, along with the current findings, underscore the importance of resilience as a critical internal resource that can shield individuals from the debilitating effects of trauma.

Further supporting this interpretation, the results of the multiple linear regression analysis revealed that resilience was a significant negative predictor of PTS ($\beta = -0.446, p < .001$). The standardized beta coefficient (β) indicates the strength and direction of each predictor's unique contribution to the outcome variable after controlling for other variables in the model. In this case, $\beta = -0.446$ represents a moderate inverse effect, suggesting that greater resilience substantially reduces post-traumatic stress symptoms. This implies that, beyond simple associations, resilience independently contributes to reducing the severity of post-traumatic stress symptoms. This finding is in line with stress-buffering models proposed by Lazarus and Folkman (1984), which posit that psychological resources like resilience help individuals appraise and respond to stressors in a more adaptive manner, thereby reducing their psychological impact.

However, contrary to the expectations of this study, resilience was not found to be significantly associated with post-traumatic growth (PTG) ($r = .196, p = .060$), although the correlation was in the expected positive direction, indicating only a trend-level association. This finding suggests that while higher resilience may be associated with greater PTG, the relationship was not strong enough in the current sample to support the hypothesis statistically (H1). The direction of the correlation, however, aligns with theoretical expectations and past research which suggest that resilient individuals are more likely to reframe traumatic experiences in meaningful ways and develop positively (Tedeschi & Calhoun, 2004). The lack of significance could be due to a number of factors, such as the cross-sectional nature of the data, limited statistical power, or unmeasured contextual variables that may moderate this relationship. These findings underscore the complexity of PTG and suggest that resilience alone may not be sufficient to produce growth outcomes in all populations.

Exploring Resilience and Coping Strategies as Predictors of Post-Traumatic Growth and Post-Traumatic Stress among Trauma Survivors

PTG refers to the experience of positive psychological changes that occur as a result of the struggle with highly challenging life circumstances (Tedeschi & Calhoun, 1996). While several studies have reported a significant positive association between resilience and PTG (e.g., Kim & Lee, 2022; Linley & Joseph, 2004), the overall relationship appears to be more complex and nuanced. Some scholars argue that resilience and PTG may represent distinct adaptive responses to trauma rather than being linearly or causally linked (Bonanno, 2004; Calhoun & Tedeschi, 2014). Specifically, resilience is often conceptualized as the capacity to maintain or return to baseline functioning following adversity, thereby minimizing emotional disruption and preserving psychological equilibrium (Bonanno, 2004). In contrast, PTG is understood as a process of transformation and self-reconfiguration, arising from the cognitive and emotional struggle to make sense of traumatic experiences (Calhoun & Tedeschi, 2014).

From this standpoint, individuals who are highly resilient may experience less psychological disruption, thus reducing the impetus for deep existential reflection or cognitive restructuring—both of which are considered essential for PTG (Joseph & Linley, 2005; Taku et al., 2008). Therefore, the absence of a significant correlation between resilience and PTG in the present study may reflect the theoretically distinct pathways through which these constructs operate. It also highlights the importance of considering additional mediating factors such as deliberate rumination, meaning-making, and emotional disclosure, which may play a pivotal role in facilitating PTG regardless of an individual's baseline resilience (Cann et al., 2010; Shakespeare-Finch & Barrington, 2012).

Regarding coping strategies, the current study found that maladaptive coping was positively correlated with PTS ($r = 0.238, p < .05$), and also emerged as a significant positive predictor in the regression model ($\beta = 0.251, p = .007$). This β value reflects a small-to-moderate positive effect, indicating that higher use of maladaptive coping strategies independently contributes to increased severity of PTS symptoms. Maladaptive coping strategies, such as avoidance, denial, self-blame, and substance use, are often associated with increased psychological distress and poor adjustment following trauma.^{20,9} This finding aligns with previous research demonstrating that individuals who rely on maladaptive coping mechanisms are more vulnerable to developing PTSD and other stress-related disorders. For example, a study found that avoidance and emotion-focused coping were significantly associated with heightened PTS symptoms in adolescent trauma survivors.³ Similarly, Hoffman et al. emphasized that emotion suppression and disengagement strategies contributed to the maintenance of PTSD symptoms in adults.¹⁵ The current findings further support these conclusions, indicating that maladaptive coping not only correlates with PTS but also independently predicts its severity.

In contrast to the expectations outlined in Hypotheses 3 and 4, adaptive coping strategies were not found to be significantly associated with either posttraumatic growth (PTG) ($r = .146, p = .163$) or posttraumatic stress (PTS) ($r = -0.039, p = .714$). The term "adaptive coping" describes positive, goal-oriented techniques including active problem-solving, positive reframing, emotional control, and reaching out for social support (Folkman & Moskowitz, 2004). These strategies are generally theorized to facilitate psychological well-being, aid emotional recovery, and promote personal growth following adversity. Previous empirical research has consistently demonstrated positive associations between adaptive coping and PTG as well as negative associations with PTSD symptoms. For instance, Nguyen and Tran (2020) found that adaptive coping was linked with greater PTG among

Exploring Resilience and Coping Strategies as Predictors of Post-Traumatic Growth and Post-Traumatic Stress among Trauma Survivors

survivors of natural disasters, while Verma and Nair (2020) reported a significant inverse relationship between adaptive coping and PTSD symptoms in trauma-exposed individuals. Furthermore, Prati and Pietrantonio (2009), through a meta-analytic review, concluded that adaptive coping is one of the most robust predictors of PTG across various trauma populations. Similarly, Schaefer and Moos (1998) proposed that cognitive and behavioral strategies that enhance perceived control and facilitate meaning-making are integral to posttraumatic growth. However, the current findings did not replicate these patterns. Despite the direction of the correlations being consistent with prior theoretical expectations, the associations in this study did not reach statistical significance. Several possible explanations may account for this discrepancy. First, the effectiveness of adaptive coping strategies is often influenced by contextual and situational variables, such as the nature of the traumatic experience, the time elapsed since the trauma, and the availability and quality of social or institutional support systems. For example, in cases where trauma is ongoing or unresolved, adaptive coping strategies may not yield the anticipated psychological benefits (Bonanno & Diminich, 2013). Second, it is important to consider the co-occurrence of coping strategies. Participants may have engaged in adaptive coping simultaneously with maladaptive responses such as avoidance, denial, or emotional suppression, which could undermine the effectiveness of the adaptive efforts and dilute their statistical association with positive outcomes like PTG. Indeed, research suggests that coping strategies often operate in combination rather than isolation, and coping profiles may provide more insight than individual strategy use alone (Lazarus & Folkman, 1984; Cheng et al., 2014).

Additionally, individual differences in coping preferences, including personality traits, dispositional optimism, and cultural influences, may have influenced how adaptive coping was employed and perceived. For instance, in some cultures, seeking social support might not be considered an acceptable or effective response to trauma, thus impacting the utility of this particular adaptive coping dimension (Kuo, 2011). Moreover, it is possible that PTG emerges not solely as a result of immediate or surface-level coping behaviors but as a gradual outcome of deeper cognitive and emotional processing. Processes such as deliberate rumination, existential re-evaluation, and meaning-making often unfold over time and may not be fully captured through self-reported coping inventories administered at a single time point (Tedeschi & Calhoun, 2004; Cann et al., 2010). Therefore, the nonsignificant findings in the current study may reflect the temporal and developmental nature of PTG, as well as the potential need for mediating and moderating variables to be considered in the relationship between adaptive coping and post-trauma outcomes. Taken together, while adaptive coping remains a theoretically important construct in trauma recovery literature, the present findings suggest that it may not operate as a direct predictor of either PTG or PTS without consideration of intervening factors. Future research should examine coping profiles, longitudinal trajectories, and the role of psychological flexibility and meaning-making processes to better understand the dynamic interplay between coping and trauma-related outcomes.

Another noteworthy finding was that PTG did not show significant correlations with any of the predictor variables in the study, including resilience, adaptive coping, or maladaptive coping. This suggests that the factors contributing to PTG may be more complex and multifaceted than those influencing PTS. Previous research has highlighted a range of variables that can influence PTG, including meaning-making, cognitive restructuring, spirituality, social support, and cultural beliefs (Tedeschi et al., 2018; Rodriguez et al., 2019; Stevenson et al., 2014). The cross-sectional nature of the current study may also have

Exploring Resilience and Coping Strategies as Predictors of Post-Traumatic Growth and Post-Traumatic Stress among Trauma Survivors

limited the ability to capture the temporal dynamics of PTG, which often unfolds gradually over time. Longitudinal research has shown that PTG can develop months or even years after the trauma, as individuals reflect on their experiences and begin to reconstruct their sense of self and worldview (Martinez et al., 2021; Zhou et al., 2018).

Furthermore, the measurement of PTG using the PTGI-SF, while widely validated, relies on self-report and captures perceived growth rather than objective or behavioral change. Some individuals may underreport their growth due to modesty, lack of introspection, or cultural beliefs, while others may overreport it as a form of cognitive dissonance reduction or self-enhancement (Frazier et al., 2009). These methodological considerations may partially explain the lack of significant findings related to PTG in the current study.

From a theoretical standpoint, the findings of this study partially support the stress-buffering model and the PTG framework proposed by Tedeschi and Calhoun (1996). While resilience and maladaptive coping significantly influenced PTS, their influence on PTG was not supported in this sample. This suggests that PTG may involve additional processes not captured by resilience and coping alone, such as deliberate rumination, existential reflection, or social acknowledgment of trauma.

The findings have several practical and clinical implications. First, they highlight the importance of assessing and enhancing resilience as part of trauma-informed care. Interventions aimed at building resilience—such as cognitive-behavioral therapy (CBT), mindfulness training, and strength-based approaches—may help reduce trauma-related distress. Second, the identification of maladaptive coping as a risk factor for PTS suggests that therapeutic efforts should include psychoeducation and skills training to promote more adaptive coping strategies. Clinicians should assess the use of avoidance, self-blame, and other maladaptive strategies, and work with clients to replace them with more effective coping methods.

On a research level, the study underscores the need for a multidimensional and culturally sensitive approach to understanding trauma recovery. Future research should consider longitudinal designs to better capture the trajectories of PTG and PTS over time. Additionally, the inclusion of qualitative data could enrich the understanding of how individuals perceive and experience growth and distress in the aftermath of trauma.

In summary, this study offers partial support for the proposed hypotheses. While resilience and maladaptive coping significantly predicted PTS, their lack of association with PTG highlights the complex, potentially indirect nature of growth following trauma. These insights add to the existing trauma literature and underline the importance of holistic, multi-layered research and clinical strategies. These findings contribute to the growing body of literature on trauma psychology and offer valuable directions for future research and clinical practice.

Research Implications and Future Directions

The study underscores the importance of multidimensional and culturally sensitive frameworks in trauma research. Longitudinal studies are needed to trace the trajectories of PTG and PTS over time and to account for delayed or evolving growth. Incorporating qualitative approaches could further enrich understanding of the subjective experiences and narratives surrounding trauma, resilience, and recovery. Future research should also explore

Exploring Resilience and Coping Strategies as Predictors of Post-Traumatic Growth and Post-Traumatic Stress among Trauma Survivors

copied profiles rather than individual strategies, and examine mediators such as cognitive flexibility, rumination, and support networks.

CONCLUSION

In summary, this study found that resilience and maladaptive coping significantly predicted PTS, reinforcing their roles in trauma recovery. However, neither variable significantly predicted PTG, suggesting a more complex interplay of factors in the emergence of growth after trauma. These findings contribute to trauma psychology by distinguishing the predictors of stress versus growth and point toward more nuanced, longitudinal, and process-oriented research models for understanding trauma adaptation.

REFERENCES

- American Psychiatric Association. (2013). *Diagnostic and statistical manual of mental disorders* (5th ed.). Arlington, VA: American Psychiatric Publishing.
- Addison, C. C., Campbell-Jenkins, B. W., Sarpong, D. F., Kibler, J. L., Singh, M., Dubbert, P., et al. (2007). Psychometric evaluation of a coping strategies inventory short-form (CSI-SF) in the Jackson Heart Study cohort. *International Journal of Environmental Research and Public Health*, 4(4), 289–295.
- Bai, W., Wu, Y., Li, J., & Wang, H. (2023). Coping styles and PTSD symptoms in adolescent trauma survivors: The mediating role of emotional regulation. *Journal of Affective Disorders*, 317, 66–73.
- Banerjee, D., & Saha, A. (2021). Impact of resilience on psychological well-being of healthcare workers during COVID-19 pandemic. *Asian Journal of Psychiatry*, 58, 102581.
- Bonanno, G. A. (2004). Loss, trauma, and human resilience: Have we underestimated the human capacity to thrive after extremely aversive events? *American Psychologist*, 59(1), 20–28.
- Bonanno, G. A., & Diminich, E. D. (2013). Annual research review: Positive adjustment to adversity—Trajectories of minimal-impact resilience and emergent resilience. *Journal of Child Psychology and Psychiatry*, 54(4), 378–401.
- Calhoun, L. G., & Tedeschi, R. G. (2014). *Facilitating posttraumatic growth: A clinician's guide*. Mahwah, NJ: Lawrence Erlbaum Associates.
- Cann, A., Calhoun, L. G., Tedeschi, R. G., Taku, K., Vishnevsky, T., Triplett, K. N., et al. (2010). A short form of the posttraumatic growth inventory. *Anxiety, Stress & Coping*, 23(2), 127–137.
- Carver, C. S., Scheier, M. F., & Weintraub, J. K. (1989). Assessing coping strategies: A theoretically based approach. *Journal of Personality and Social Psychology*, 56(2), 267–283.
- Cheng, C., Lau, H. P., & Chan, M. G. (2014). Coping flexibility and psychological adjustment to stressful life changes: A meta-analytic review. *Psychological Bulletin*, 140(6), 1582–1607.
- Folkman, S., & Moskowitz, J. T. (2004). Positive affect and the other side of coping. *American Psychologist*, 59(8), 647–654.
- Frazier, P. A., Conlon, A., & Glaser, T. (2009). Positive and negative life changes following sexual assault. *Journal of Consulting and Clinical Psychology*, 77(4), 707–718.
- Hansen, M., Andersen, T. E., Armour, C., Elklit, A., & Palic, S. (2010). PTSD-8: A short PTSD inventory. *Clinical Practice and Epidemiology in Mental Health*, 6, 101–108.

Exploring Resilience and Coping Strategies as Predictors of Post-Traumatic Growth and Post-Traumatic Stress among Trauma Survivors

- Helgeson, V. S., Reynolds, K. A., & Tomich, P. L. (2006). A meta-analytic review of benefit finding and growth. *Journal of Consulting and Clinical Psychology, 74*(5), 797–816.
- Hoffman, E. M., Clark, L. A., & Phelps, E. A. (2020). Emotion suppression and post-traumatic stress disorder: A systematic review. *Clinical Psychology Review, 80*, 101893.
- Hu, T., Zhang, D., & Wang, J. (2015). A meta-analysis of the trait resilience and mental health. *Personality and Individual Differences, 76*, 18–27.
- Joseph, S., & Linley, P. A. (2005). Growth following adversity: Theoretical perspectives and implications for clinical practice. *Clinical Psychology Review, 25*(8), 951–964.
- Kim, Y., & Lee, S. (2022). The relationship between resilience and post-traumatic growth in trauma survivors: A meta-analytic review. *Journal of Trauma & Dissociation, 23*(4), 437–453.
- Kuo, W. H. (2011). Culture and coping: The role of cultural beliefs in adaptive responses to trauma. *Traumatology, 17*(1), 1–11.
- Lazarus, R. S., & Folkman, S. (1984). *Stress, appraisal, and coping*. New York: Springer Publishing Company.
- Linley, P. A., & Joseph, S. (2004). Positive change following trauma and adversity: A review. *Journal of Traumatic Stress, 17*(1), 11–21.
- Martinez, S. E., Zalaquett, C. P., & Marotta, S. A. (2021). Longitudinal study of posttraumatic growth among trauma survivors. *Journal of Loss and Trauma, 26*(3), 204–219.
- Nguyen, T. H., & Tran, B. X. (2020). Adaptive coping strategies and post-traumatic growth among survivors of natural disasters: A systematic review. *Journal of Traumatic Stress, 33*(3), 494–504.
- Prati, G., & Pietrantonio, L. (2009). Optimism, social support, and coping strategies as factors contributing to posttraumatic growth: A meta-analysis. *Journal of Loss and Trauma, 14*(5), 364–388.
- Prati, G., & Pietrantonio, L. (2009). The relation of perceived and received social support to mental health among first responders: A meta-analytic review. *Journal of Community Psychology, 37*(3), 277–290.
- Rodriguez-Rey, R., Alonso-Tapia, J., & Hernansaiz-Garrido, H. (2019). Posttraumatic growth and its relationship with social support, optimism, and coping strategies: A meta-analytic review. *Journal of Loss and Trauma, 24*(6), 510–526.
- Schaefer, J. A., & Moos, R. H. (1998). Life crises and personal growth. *Journal of Traumatic Stress, 11*(2), 243–257.
- Shakespeare-Finch, J., & Barrington, A. (2012). Relationship quality, social support, and posttraumatic growth. *Journal of Loss and Trauma, 17*(3), 245–257.
- Smith, B. W., Dalen, J., Wiggins, K., Tooley, E., Christopher, P., & Bernard, J. (2008). The Brief Resilience Scale: Assessing the ability to bounce back. *International Journal of Behavioral Medicine, 15*(3), 194–200.
- Stevenson, A., Schmied, V., & Hungerford, C. (2014). Spirituality and posttraumatic growth: A review. *Journal of Clinical Psychology, 70*(3), 294–307.
- Taku, K., Cann, A., Calhoun, L. G., & Tedeschi, R. G. (2008). The factor structure of the posttraumatic growth inventory: A comparison of five models using confirmatory factor analysis. *Journal of Traumatic Stress, 21*(2), 158–164.
- Tedeschi, R. G., & Calhoun, L. G. (1996). Posttraumatic growth: Conceptual foundations and empirical evidence. *Psychological Inquiry, 15*(1), 1–18.

Exploring Resilience and Coping Strategies as Predictors of Post-Traumatic Growth and Post-Traumatic Stress among Trauma Survivors

- Tedeschi, R. G., & Calhoun, L. G. (1996). The posttraumatic growth inventory: Measuring the positive legacy of trauma. *Journal of Traumatic Stress, 9*(3), 455–471.
- Tedeschi, R. G., & Calhoun, L. G. (2004). The posttraumatic growth model: A framework for understanding positive change following trauma. *Psychological Inquiry, 15*(1), 1–18.
- Tedeschi, R. G., & Calhoun, L. G. (2014). *Facilitating posttraumatic growth: A clinician's guide*. Mahwah, NJ: Lawrence Erlbaum Associates.
- Verma, R. K., & Nair, M. K. (2020). The impact of adaptive coping strategies on PTSD symptoms in trauma-exposed populations. *Journal of Mental Health, 29*(5), 537–545.
- West, S. G., Finch, J. F., & Curran, P. J. (1995). Structural equation models with nonnormal variables: Problems and remedies. In R. H. Hoyle (Ed.), *Structural equation modeling: Concepts, issues, and applications* (pp. 56–75). Thousand Oaks, CA: Sage Publications.
- Zhou, X., Wu, X., & Zhen, R. (2018). Temporal dynamics of posttraumatic growth in trauma survivors: A meta-analysis. *Psychological Trauma: Theory, Research, Practice, and Policy, 10*(6), 658–668.

Acknowledgment

I am deeply thankful to my guide, Dr. Anjali Sahai Srivastava for their valuable guidance, encouragement, and constructive feedback at every stage of this research. Her insight and expertise have been instrumental in shaping this work. I am also grateful to the faculty and staff of the Amity Institute of Psychology and Allied Sciences for providing the academic foundation and resources that made this dissertation possible. Also, Authors acknowledge the immense help received from the scholars whose articles are cited and included in references of this manuscript. The authors are also grateful to authors / editors / publishers of all those articles, journals and books from where the literature for this article has been reviewed and discussed.

Conflict of Interest

The author(s) declared no conflict of interest.

How to cite this article: Sain, D. & Sahai, A. (2025). Exploring Resilience and Coping Strategies as Predictors of Post-Traumatic Growth and Post-Traumatic Stress among Trauma Survivors. *International Journal of Indian Psychology, 13*(2), 2550-2566. DIP:18.01.227.20251302, DOI:10.25215/1302.227