

Traumatic grief, health and mental health in Palestine: the mediating role of posttraumatic growth and resilience

BACKGROUND

Palestinian youth have faced considerable mental health challenges due to the traumatic impact of war-related losses, prompting research into the psychological effects of such experiences. These challenges include impaired physical and psychological health, which are often exacerbated by grief from violent losses. Understanding the factors that influence their psychological well-being and recovery, such as posttraumatic growth and resilience, is crucial for developing effective interventions.

PARTICIPANTS AND PROCEDURE

We administered the Warwick-Edinburgh Mental Well-being Scale, Patient-Reported Outcomes Measurement Information System, Traumatic Grief Inventory-Self Report Version, Resilience Scale for Adults, and Posttraumatic Growth Inventory-Short Form to 520 Palestinian youth (240 males, 280 females). Participants' age ranged from 23 to 58 years ($M = 35.3$, $SD = 12.27$). Structural equation modeling tested the mediating roles of posttraumatic growth and resilience on the relationship between traumatic grief and mental health symptoms.

RESULTS

Palestinians exposed to war-related losses exhibited impaired physical and psychological health, with traumatic

grief negatively correlated with resilience ($r = -.54$), posttraumatic growth ($r = -.36$), mental health ($r = -.55$), and health ($r = -.64$) (all $p < .01$). Resilience and posttraumatic growth were positively correlated with mental health ($r = .68$, $p < .01$) and health ($r = .56$, $p < .01$). Structural equation modeling revealed a significant indirect effect of traumatic grief on both mental health ($\beta_{x,M} = -.55$, $p < .001$) and health ($\beta_{x,M} = -.64$, $p < .001$), mediated by resilience ($\beta_{x,M} = .12$, $p < .05$) and posttraumatic growth ($\beta_{x,M} = .21$, $p < .01$).

CONCLUSIONS

Interventions should extend beyond symptom elimination, focusing on promoting the flourishing and well-being of individuals affected by war and violence. Combining clinical work with well-being promotion is crucial to alleviate the burdens of violent loss among war and violence victims.

KEY WORDS

health; mental health; traumatic grief; symptoms of trauma; Palestinian youths

ORGANIZATION – 1: University of Milano-Bicocca, Milano, Italy · 2: Stellenbosch University, Stellenbosch, South Africa · 3: An-Najah National University, Nablus, West Bank, Palestine

AUTHORS' CONTRIBUTIONS – A: Study design · B: Data collection · C: Statistical analysis · D: Data interpretation · E: Manuscript preparation · F: Literature search · G: Funds collection

CORRESPONDING AUTHOR – Prof. Guido Veronese, University of Milano-Bicocca, Piazza dell'Ateneo Nuovo 1, 20126 Milano, Italy, e-mail: guido.veronese@unimib.it

TO CITE THIS ARTICLE – Veronese, G., Mahamid, F., & Bdier, D. (2025). Traumatic grief, health and mental health in Palestine: the mediating role of posttraumatic growth and resilience. *Health Psychology Report*. <https://doi.org/10.5114/hpr/199540>

RECEIVED 31.07.2024 · REVIEWED 31.10.2024 · ACCEPTED 27.12.2024 · ONLINE PUBLICATION 27.02.2025



BACKGROUND

For over seven decades, the Palestinian population has faced a prolonged Israeli military occupation, leading to traumatic experiences that trigger a range of psychological, behavioral, and physiological responses (Bdier et al., 2023; Cohen et al., 2019; Mahamid et al., 2021, 2022). Such exposure is linked to mental health disorders, including depression, anxiety, and post-traumatic stress disorder (PTSD), which are commonly reported among those facing direct and indirect consequences of political violence (Marie et al., 2016; Wagner et al., 2020). For example, Marie and SaadAdeen (2021) highlighted the prevalence of mental health issues among Palestinians whose homes were demolished, underscoring the impact of displacement and loss on psychological well-being. Wagner et al. (2020) found high levels of distress among Palestinians exposed to violence, emphasizing the widespread nature of trauma in this context.

Canetti et al. (2010) provided evidence of PTSD and depression in areas affected by chronic violence, supporting our focus on traumatic grief as a significant mental health outcome. Similarly, Thabet et al. (2013) and El-Deeb (2017) demonstrated the association between war-related loss and grief, reinforcing the relevance of studying traumatic grief and its psychological impacts in conflict settings.

The connection between trauma and prolonged grief disorder (PGD) is further illustrated by Comtesse et al. (2022), who examined Syrian refugees and highlighted the role of PTSD and social support in grief reactions. This supports our hypothesis that traumatic grief is compounded by trauma symptoms. Mutabaruka et al. (2012) found that PTSD symptoms mediated the relationship between trauma exposure and traumatic grief in Rwandan genocide survivors, aligning with our model's focus on mediation.

The broader mental health effects of trauma, such as suicidal ideation (Kovess-Masfety et al., 2021) and comorbid depression in war veterans (Marmar et al., 2015; Smith et al., 2020), highlight the global nature of trauma's impact and strengthen the relevance of our study in the Palestinian context. Research on post-migration stress in Syrian refugees (Tinghög et al., 2017) and continuous traumatic stress in southern Israel (Greene et al., 2018) indicates that persistent exposure to violence contributes to chronic mental health issues, paralleling the experiences of Palestinians under military occupation (Joma'a & Thabet, 2015).

Posttraumatic growth (PTG), which reflects positive post-trauma changes, is identified as a potential mental health enhancer (Tedeschi et al., 2015; Veronese et al., 2022). Dawas and Thabet (2017) linked traumatic experiences with PTSD and PTG, supporting our study's focus on PTG as a mediating factor. Veronese et al. (2017) found that PTG correlated with

well-being in aid workers, reinforcing its potential as a buffer against trauma's negative impacts.

Resilience, crucial for coping with trauma (Mahamid & Bdier, 2020; Zolkoski & Bullock, 2012), has been shown to correlate with higher quality of life and fewer depression symptoms among Palestinians (Mahamid et al., 2022). Ghannam and Thabet (2014) and Murad and Abdel Aziz (2017) observed a negative association of resilience with dissociative symptoms and PTSD, suggesting its role in promoting mental health. Kteily-Hawa et al. (2020) emphasized resilience's contribution to psychological functioning, relevant to our study's hypothesis that resilience mediates the effects of traumatic grief.

Building on these findings, in our study we aimed to expand the understanding of the relationship between traumatic grief, PTG, and resilience within the context of the ongoing military occupation and conflict in the West Bank and Gaza Strip.

THE CURRENT STUDY

In light of the extensive body of previous research (Comtesse et al., 2022; Dawas & Thabet, 2017; Ghannam & Thabet, 2014; Greene et al., 2018; Joma'a & Thabet, 2015; Kovess-Masfety et al., 2021; Kteily-Hawa et al., 2020; Mahamid et al., 2022; Marmar et al., 2015; Mutabaruka et al., 2012; Smith et al., 2020; Tinghög et al., 2017; Veronese et al., 2017), this study posits a series of hypotheses aimed at unraveling the complex interplay of trauma symptoms, traumatic grief, PTG, resilience, and mental health outcomes among Palestinian adults.

Hypothesis 1 (H1): It is hypothesized that trauma symptoms will exhibit a positive association with traumatic grief. This hypothesis is grounded in the prior findings of Comtesse et al. (2022) and Mutabaruka et al. (2012), which indicated that trauma symptoms correlate with the manifestation of traumatic grief among individuals exposed to traumatic events. These studies elucidate the intricate relationship between psychological distress resulting from trauma and the enduring emotional and psychological consequences reflected in traumatic grief.

Hypothesis 2 (H2): Building upon the extensive literature including the works of Kovess-Masfety et al. (2021), Smith et al. (2020), and Greene et al. (2018), this hypothesis postulates a positive association between trauma symptoms and various adverse mental health outcomes. Prior research has suggested that trauma symptoms are predictive of a spectrum of mental health conditions, encompassing depression, anxiety, and stress, which aligns with the expectations of H2. The collective evidence underscores the profound and pervasive impact of trauma symptoms on the psychological well-being of individuals exposed to protracted and violent conflicts.

Guido Veronese,
Fayez Mahamid,
Dana Bdier

Hypothesis 3 (H3): This hypothesis proposes that PTG and resilience act as mediating factors between trauma symptoms, traumatic grief, and mental health outcomes among Palestinian adults.

First, PTG is expected to reduce the negative impact of trauma symptoms on mental health, potentially easing the severity of traumatic grief. Studies such as those of Dawas and Thabet (2017) and Kteily-Hawa et al. (2020) highlight the role of PTG in promoting positive psychological change after trauma.

Second, resilience is hypothesized to buffer the adverse mental health effects of trauma, serving as a protective factor against developing traumatic grief. Research by Ghannam and Thabet (2014) supports resilience's capacity to help individuals cope with and recover from traumatic experiences.

In summary, these hypotheses are informed by the extensive research on the mental health consequences of prolonged conflict and trauma among Palestinian adults. They reflect the complex interplay of trauma symptoms, traumatic grief, PTG, resilience, and various mental health outcomes, offering a framework for understanding and addressing the multifaceted psychological challenges faced by individuals in conflict-ridden regions.

PARTICIPANTS AND PROCEDURE

PARTICIPANTS

In October 2023, our research was undertaken with the objective of comprehensively investigating the psychological well-being of Palestinian youth residing in the West Bank and Gaza Strip, given the ongoing and protracted conflict in the region. We conducted this study through online recruitment techniques, including emails, social media platforms, and online advertisements, to reach out to potential participants. The primary purpose of our study was transparently presented online, allowing interested individuals to express their willingness to partake in the research endeavor. Following their expression of interest, each participant was furnished with a detailed letter elucidating the study's objectives, ethical considerations, and the requisite conditions for their involvement.

In adherence to ethical research practices, all participants conveyed their explicit and informed consent in writing, signifying their understanding of and agreement with the study's terms and their voluntary participation. Our study had a total sample size of 520 Palestinian youth, with a relatively even gender distribution of 240 males and 280 females. The age of the participants in the study ranged from 23 to 58 years, with a mean of 35.3 years ($SD = 12.27$). To capture the diverse Palestinian demographic landscape, participants hailed from different geographical

Table 1

Participant demographics (N = 520)

Demographic characteristic	(%)
Gender	
Male	46.2
Female	53.8
Age	
23–29	37.3
30–39	33.2
40–49	22.9
50–58	6.6
Geographical setting	
Urban	46.7
Rural	43.7
Refugee camps	9.6
Educational attainment	
Graduate degree	17.7
Bachelor's degree	72.3
High school diploma	10.0

Traumatic grief, health and mental health in Palestine

settings, with 46.7% originating from urban regions, 43.7% from rural areas, and the remaining 9.6% representing internally displaced refugee camps.

Educational attainment was another salient facet of our participant profile, with 17.7% holding graduate degrees, 72.3% possessing bachelor's degrees, and 10% having high school diplomas. This diverse educational background was critical in encompassing a broad spectrum of perspectives and experiences among our study cohort (see Table 1).

Inclusion criteria for participants were defined to ensure the homogeneity of the sample. To be eligible for inclusion in the study, individuals were required to meet the following criteria: 1) proficiency in the Arabic language as a native speaker, 2) unequivocal Palestinian identity, and 3) residency in the occupied Palestinian territories (oPt). These criteria were carefully selected to guarantee the relevance and applicability of our findings to the specific population of interest.

Furthermore, prior to commencing data collection, our research protocol received formal approval from the An-Najah Institutional Review Board (IRB).

MEASURES

In accordance with established guidelines for questionnaire development (Hambleton et al., 2006), all

measures that had not been previously validated in Arabic were subject to translation and back-translation. This involved the transformation of the original standard English versions into Arabic, followed by a comprehensive evaluation by a panel of 10 Arabic-speaking professionals with expertise in psychology, counseling, and social work. Their evaluation focused on the clarity, relevance of questions, and the accuracy of translation. Subsequently, the translated draft of the questionnaires underwent further scrutiny via back-translation into English by an independent expert English editor. This meticulous procedure was undertaken to ensure that the translated instruments effectively conveyed the intended content and meaning.

Thus, we paid particular attention to potential challenges in the translation process, such as adapting specific cultural concepts, idiomatic expressions, and terms that may not have direct equivalents in Arabic. For instance, terms related to mental health were carefully selected to align with culturally appropriate terminology and ensure that respondents fully understood the questions in the context of their experiences. This thorough process aimed to ensure that the translated instruments maintained both the conceptual and cultural integrity of the original measures.

This meticulous translation and validation process contributed to the high internal consistency observed across the measures (α values ranging from .89 to .93), confirming that the scales were suitable and reliable for use with the Palestinian sample in this study.

Warwick-Edinburgh Mental Well-being Scale (WEMWBS). The WEMWBS comprises 14 items that encompass both hedonic and eudaimonic dimensions of mental health. These dimensions encompass positive affect, such as feelings of optimism, cheerfulness, and relaxation, as well as satisfying interpersonal relationships and positive functioning, characterized by attributes such as energy, clear thinking, self-acceptance, personal development, competence, and autonomy. Respondents to the scale were required to indicate the extent to which they identified with each statement over the past two weeks using a 5-point Likert scale, which ranged from *none of the time* to *all of the time*. This Likert scale assigned a numerical score to each item, spanning from 1 to 5 (Tennant et al., 2007). The WEMWBS demonstrated a robust level of internal consistency in assessing the global mental health of Palestinians ($\alpha = .90$).

Patient-Reported Outcomes Measurement Information System (PROMIS). PROMIS 10 is a 10-item instrument designed to assess generic health-related quality of life in comparison to population norms. It captures health status by evaluating five domains: physical function, fatigue, pain, emotional distress, and social health. Participants respond to the questions using a 5-point Likert scale, ranging from 5 (*excellent*) to 1 (*never*). The PROMIS exhibited a high

degree of internal consistency in assessing the health and mental well-being of Palestinians ($\alpha = .93$).

Traumatic Grief Inventory-Self Report Version (TGI-SR). The TGI-SR is an 18-item self-report tool designed for the evaluation of traumatic grief symptoms. It can be completed by patients either prior to or during a clinical session or by research participants as part of a study. Completion of this instrument typically takes 5-10 minutes. Participants rate the extent to which they experienced the 18 symptoms of traumatic grief during the preceding month using a 5-point scale, ranging from *never* to *always*. Depending on the research goals, a lower item cutoff may be considered, such as treating items rated as *sometimes* (3) as an endorsed symptom, to enhance the detection of potential cases. It is crucial to note that diagnostic conclusions derived from the TGI-SR are always provisional and must be confirmed through diagnostic interviews. The TGI-SR demonstrated a high level of internal consistency in assessing traumatic grief among Palestinians ($\alpha = .89$).

Resilience Scale for Adults (RSA). The RSA is a 33-item self-report scale, developed by Friborg et al. (2003), that measures protective resilience factors among adults. The scale encompasses five factors denoted as personal competence, social competence, family cohesion, social resources, and structured style. Respondents provided their ratings using a Likert response format, ranging from 1 (*strongly disagree*) to 5 (*strongly agree*). The RSA exhibited a high degree of internal consistency in assessing resilience among Palestinians ($\alpha = .91$).

Posttraumatic Growth Inventory-Short Form (PTGI-SF). The Posttraumatic Growth Inventory-Short Form (PTGI-SF; Cann et al., 2010) comprises 10 items, each offering response options ranging from 1 (*entirely in disagreement*) to 6 (*entirely in agreement*). The PTGI-SF assesses various dimensions of PTG, including new possibilities, enhanced interpersonal relationships, increased personal strength, greater appreciation for life, and spiritual transformation. In this study, we employed an Arabic version of the instrument that had been previously validated within a Palestinian sample of in-service health providers (Veronese & Pepe, 2019). An examination of internal consistency using the Cronbach's α formula in the Palestinian context indicated a high degree of reliability for the PTGI-SF (.89). This underscores the instrument's capability to consistently measure PTG among Palestinian participants with precision and confidence.

DATA ANALYSIS

Descriptive statistics were employed to analyze the fundamental characteristics of the variables under investigation in this study. Additionally, we examined

the interrelationships between these variables, which encompass mental health, physical health, traumatic grief, resilience, and PTG. To evaluate our study's conceptual framework, we utilized structural equation modeling (SEM), as depicted in Figure 1. In this framework, traumatic grief served as the predictor variable, while resilience and PTG functioned as mediating variables, and both health and mental health were considered as outcome variables. Notably, the SEM model demonstrated strong goodness-of-fit indicators, with comparative fit index (CFI) = 0.98, normed fit index (NFI) = 0.98, incremental fit index

(IFI) = 0.97, standardized root mean square residual (SRMR) = 0.03, and root mean square error of approximation (RMSEA) = 0.04. The AMOS29 statistical analysis software was employed to perform the SEM analysis, as visualized in Figure 2.

RESULTS

Descriptive statistics for mental health, health, traumatic grief, resilience, and PTG were calculated as shown in Table 2. Participants reported high scores

Traumatic grief, health and mental health in Palestine

Figure 1

The conceptualized effect of traumatic grief on health and mental health, and the mediating role of posttraumatic growth and resilience

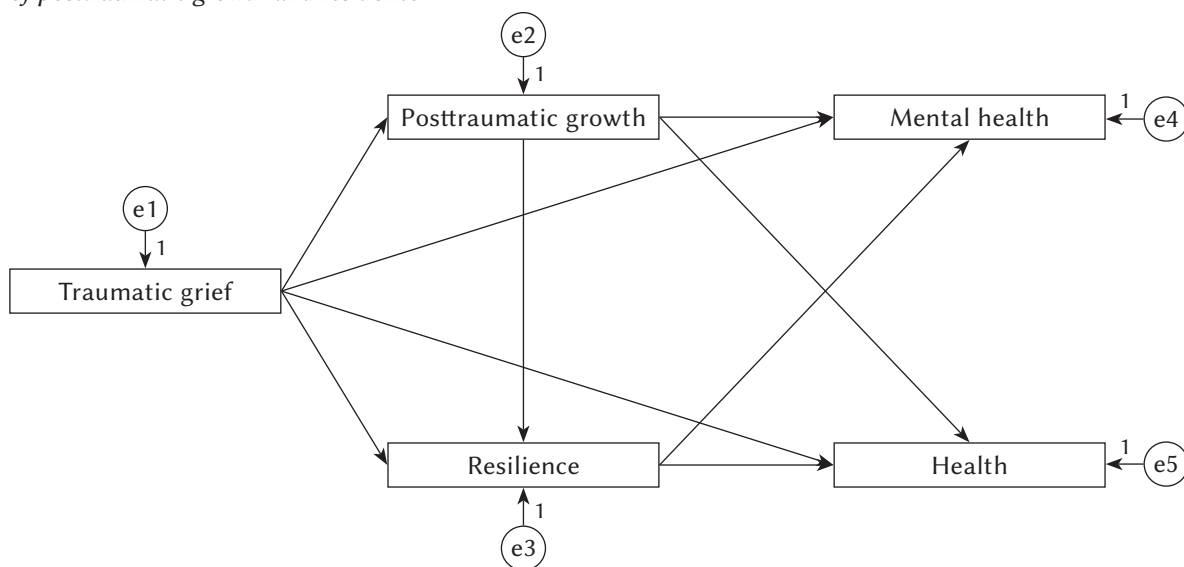
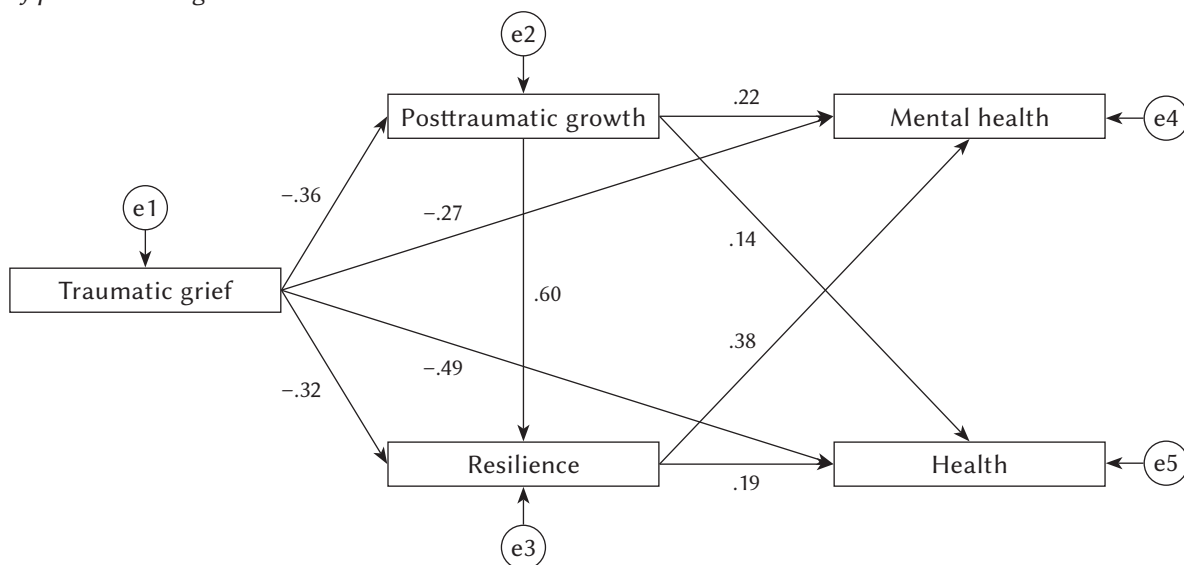


Figure 2

Structural equation modeling of traumatic grief on health and mental health, and the mediating role of posttraumatic growth and resilience



on mental health, resilience, and PTG. Moreover, participants reported moderate scores on health and traumatic grief. In addition, all measures used in this study showed a high degree reliability ranging from .89 (PTG) to .93 (health).

The results of the correlational analysis (Table 3) showed that traumatic grief negatively correlated with resilience ($r = -.54, p < .01$), PTG ($r = -.36, p < .01$), mental health ($r = -.55, p < .01$), and health ($r = -.64, p < .01$). Moreover, PTG positively correlated with mental health ($r = .59, p < .01$), health ($r = .45, p < .01$), and resilience ($r = .72, p < .01$). Finally, resilience positively correlated with mental health ($r = .68, p < .01$), health ($r = .56, p < .01$), and PTG ($r = .72, p < .01$).

STRUCTURAL EQUATION MODELLING (SEM)

The SEM results are presented in Figure 2, while Figure 1 illustrates our hypothesized model. In this model, traumatic grief is depicted as the predictor, with resilience and PTG serving as mediating variables, and health and mental health as the outcome variables. Our study's results demonstrate that resilience and PTG effectively mediate the relationship between traumatic grief and both health and mental health.

Concerning the mediating hypothesis (H3), our model revealed a standardized total effect of traumatic grief on mental health ($\beta_{x,M} = -.55, p < .001$), and a standardized total effect of traumatic grief on

Table 2

Descriptive statistics for research variables (N = 520)

Variable	M	SD	Min	Max	Range	Skewness	Kurtosis	Cronbach's α
Mental health	3.57	0.55	1.69	5.00	3.31	-.54	.79	.90
Health	3.17	0.63	1.44	4.89	3.44	-.30	.15	.93
Traumatic grief	2.57	0.82	1.08	5.00	3.92	.48	.01	.89
Resilience	3.99	0.52	2.38	5.00	2.63	-.62	.53	.91
Posttraumatic growth	3.82	0.59	1.80	5.00	3.20	-.75	.96	.89

Table 3

Correlations among study variables (N = 520)

Measures	1	2	3	4	5
Mental health	1	.60**	-.55**	.68**	.59**
Health		1	-.64**	.56**	.45**
Traumatic grief			1	-.54**	-.36**
Resilience				1	.72**
Posttraumatic growth					1

Note. * α is significant at $\leq .05$, ** α is significant at $\leq .01$.

Table 4

Results of mediation analysis for study variables (N = 520)

Predictor	Mediating variables	Outcomes	Estimate	SE	z-value	p	95% CI	
							Lower	Upper
Traumatic grief	→ Resilience	→ Health	-0.12	0.02	-6.20	< .001	-0.17	-0.06
Traumatic grief	→ PTG	→ Health	-0.21	0.01	-8.77	< .001	-0.30	-0.05
Traumatic grief	→ Resilience	→ Mental health	-0.19	0.02	-7.18	< .001	-0.31	-0.10
Traumatic grief	→ PTG	→ Mental health	-0.21	0.01	-9.51	< .001	-0.30	-0.07

Note. PTG – posttraumatic growth.

health ($\beta_{X,M} = -.64, p < .001$). Moreover, the model revealed a standardized total effect of traumatic grief on resilience ($\beta_{X,M} = -.34, p < .001$), and PTG ($\beta_{X,M} = -.26, p < .001$). Moreover the model showed a standardized total effect of traumatic grief on mental health ($\beta_{X,MY} = -.55, p < .01$), with a significant indirect effect via resilience ($\beta_{X,MY} = -.19, p < .01$) and PTG ($\beta_{X,MY} = -.21, p < .01$). The model also revealed a standardized total effect of traumatic grief on health ($\beta_{X,MY} = -.64, p < .01$), with a significant indirect effect via resilience ($\beta_{X,MY} = -.12, p < .05$) and PTG ($\beta_{X,MY} = -.21, p < .01$). In Table 4, the mediation analysis of our study variables is presented.

DISCUSSION

Our exploratory research aimed to investigate the relationship between traumatic loss and its impact on the mental health and overall health outcomes of individuals exposed to warfare and military violence in the occupied Palestinian territories (oPt). We also explored the potential mediating role of PTG and resilience in mitigating the adverse effects of bereavement during wartime. This discussion will explore the main findings and their implications while referring to the literature and maintaining scientific rigor.

DIRECT AND NEGATIVE EFFECT OF TRAUMATIC LOSS

Our first hypothesis (H1) posited that traumatic loss would have a direct and negative effect on the health and mental well-being of individuals in the oPt. Our findings support this hypothesis, revealing that Palestinians exposed to war-related losses experienced impaired physical and psychological health. This suggests that individuals exposed to violent bereavement and losses in the context of ongoing warfare are at a higher risk of physical and psychological distress (Boelen et al., 2019; Kokou-Kpolou et al., 2020). Traumatic losses can lead to degradation of individuals' psychological well-being and deterioration of their overall health due to the persistent conditions of violence and war in the region. The severe and ongoing trauma experienced by individuals in the oPt not only affects their immediate psychological functioning but also has long-lasting effects on their physical health, creating a vicious cycle of suffering. Previous studies have emphasized the correlation between exposure to violent death and trauma, showing that individuals exposed to prolonged stressors such as warfare tend to develop chronic health issues, including cardiovascular and immune system problems, as a result of persistent psychological distress (Shoham et al., 2021). This highlights the need

for targeted psychological and medical interventions for individuals in conflict zones.

TRAUMA SYMPTOMS AND MENTAL HEALTH

Our second hypothesis (H2) suggested that grief resulting from violent losses would increase the risk of trauma symptoms, potentially leading to conditions such as complex trauma and posttraumatic stress disorder. Indeed, bereaved victims in Palestine face an increased risk of developing trauma symptoms, further worsening their mental health (Hamamra, 2023). The trauma resulting from violent losses, especially in the context of ongoing conflict, can create a state of psychological distress that exacerbates mental health issues. In the oPt, individuals who experience bereavement are often confronted not only with grief but also with the traumatic stress caused by violence, loss of family, displacement, and the constant threat of further violence. This cumulative effect significantly elevates the risk of developing PTSD and other trauma-related conditions. Research by Ehlers and Clark (2000) has shown that persistent trauma, especially in war zones, may result in complex PTSD, characterized by symptoms that go beyond those of traditional PTSD, such as a disrupted sense of self and chronic emotional dysregulation. Therefore, addressing trauma-related symptoms in conflict zones is critical for preventing the onset of more severe mental health disorders.

ROLE OF RESILIENCE AND PTG

When traumatic loss affects individuals' psychological well-being, the role of resilience and PTG becomes crucial. Both PTG and resilience were found to contribute to enhanced psychological functioning and improved health, even in the presence of traumatic losses in the war-torn environment (Galia et al., 2022; Khursheed & Shahnawaz, 2020). Our findings support the idea that resilience and PTG act as protective factors rather than eliminating symptoms and mental suffering (H3). In people affected by trauma, these constructs may facilitate positive outcomes and promote their well-being (Ewert & Tessner, 2019). Resilience enables individuals to adapt and recover from trauma, while PTG facilitates personal growth, leading to a more positive outlook on life despite the adversity they face. In the context of the oPt, where individuals are regularly exposed to trauma, resilience and PTG are essential for survival and well-being. Resilience may help individuals to cope with stress in healthier ways, preventing the deterioration of mental and physical health. Posttraumatic growth, on the other hand, encourages individuals to find meaning in their suffering, potentially leading to

*Traumatic grief,
health and mental
health in Palestine*

greater life satisfaction and psychological well-being over time (Tedeschi & Calhoun, 2004).

Our study's results demonstrated that resilience and PTG effectively mediate the relationship between traumatic grief and both health and mental health. This is consistent with findings from other studies, such as those by Joseph and Linley (2005), who found that individuals who experience trauma often report growth in areas such as personal strength, deeper relationships with others, and greater appreciation for life. In the oPt context, where individuals constantly face loss, the ability to derive meaning from these tragic events can be a powerful coping mechanism. The combination of resilience and PTG might be particularly significant in the context of collective trauma, where an entire population experiences shared losses and hardships. By fostering resilience and supporting PTG, communities can mitigate some of the negative effects of trauma and promote healing. This finding suggests that interventions focusing on strengthening these protective factors could be particularly valuable in conflict-affected regions, such as the oPt (Hammad & Tribe, 2021).

In addition, our model demonstrated that traumatic grief had a significant indirect effect on both health and mental health through resilience and PTG. This aligns with previous research that emphasizes the role of psychological resources, such as resilience and growth, in buffering the negative effects of trauma on health (Bonanno, 2004). Resilience and PTG help individuals process and adapt to traumatic loss, which may reduce the long-term psychological and physiological consequences of grief. By enhancing these factors, individuals may be better able to manage the stress and loss associated with traumatic events, leading to better overall mental and physical health outcomes.

Furthermore, our findings suggest that the relationships between traumatic grief, resilience, and health outcomes are complex and interconnected. This highlights the importance of considering multiple variables when examining the mental health and health outcomes of individuals in conflict zones. Interventions designed to improve resilience and promote PTG could potentially serve as critical tools in addressing the psychological distress caused by traumatic loss. Future research should explore specific intervention strategies that enhance these protective factors and assess their effectiveness in improving mental health and health outcomes in populations exposed to prolonged trauma.

The findings of this study underscore the complex and intertwined relationships between trauma symptoms, traumatic grief, PTG, resilience, and mental health outcomes among Palestinians living in the context of ongoing conflict. The results indicate that trauma symptoms and traumatic grief are significantly related to negative mental health outcomes,

while PTG and resilience serve as protective factors, mediating the impact of these stressors on psychological well-being.

PRACTICAL IMPLICATIONS FOR MENTAL HEALTH INTERVENTIONS

Given that PTG and resilience have been found to buffer the negative effects of trauma, interventions should focus on promoting these factors in therapeutic settings. Programs designed to enhance PTG, such as those that encourage meaning-making from traumatic experiences or emphasize the development of new personal strengths, could be integrated into mental health services. Training mental health professionals to facilitate these processes could be particularly beneficial for individuals who have experienced significant traumatic events, such as the loss of family members or exposure to violence.

In addition, resilience-based interventions should target skills that help individuals cope with adversity, such as problem-solving, emotional regulation, and building social support networks. Mental health interventions should prioritize these resilience factors alongside traditional trauma-focused therapies, given their protective role in mitigating the psychological burden of trauma. Interventions that focus on community and social support systems, which have proved to be crucial in resilient coping, could also help foster better outcomes for Palestinians who often face isolation due to the ongoing conflict.

POLICY RECOMMENDATIONS FOR MENTAL HEALTH SERVICES

The findings also have important implications for mental health policy in Palestine. Mental health services must be expanded and adapted to meet the unique needs of Palestinians affected by prolonged conflict. Given the high prevalence of trauma and traumatic grief, there is a clear need for a comprehensive mental health policy that includes both immediate crisis intervention and long-term psychological support. Community-based mental health services that are culturally sensitive and accessible, particularly in urban and rural areas as well as refugee camps, would ensure that individuals from all demographics receive timely care.

Furthermore, policymakers should consider integrating PTG and resilience-focused strategies into public health frameworks. Public health initiatives that promote mental well-being and resilience, particularly in schools, community centers, and through local organizations, could serve as a proactive approach to mental health, preventing the escalation of trauma-related disorders. In these settings, the incor-

poration of PTG principles – such as fostering gratitude, increasing social engagement, and supporting personal growth through shared community experiences – could offer individuals a pathway to healing and psychological recovery.

Finally, due to the ongoing nature of the conflict, mental health services should also be developed with a focus on resilience to future traumas, equipping individuals with the tools to adapt and thrive despite ongoing adversity. This approach could also be useful for Palestinian refugees and internally displaced individuals who face compounded stressors and trauma.

LIMITATIONS

Several limitations should be considered. First, the cross-sectional design of our study restricted us from making causal inferences. This exploratory work established associations between variables, but these associations should be further tested in longitudinal studies with multiple waves of data. Additionally, the relatively small sample size limits the generalizability of our findings. Future research should consider larger samples for more exhaustive generalizability. Qualitative research is also needed to provide insights into the nature of PTG and resilience and their associations with traumatic loss and health/mental health outcomes.

CONCLUSIONS

War and violence in the oPt lead to traumatic loss and bereavement among civilian victims. These losses and associated trauma severely undermine individuals' functioning, decrease their overall health, and increase their psychological suffering in the aftermath of violence. However, our findings also highlight the potential for endurance and growth among war victims, particularly when psychological and psychosocial interventions focus on fostering resilience and PTG. Therefore, interventions should aim not merely to eliminate symptoms but also to promote the flourishing and well-being of individuals affected by war and violence. Research and intervention efforts should align to reduce the burdens of violent loss by combining clinical work with the promotion of well-being among victims of war and violence.

DISCLOSURES

This research received no external funding. The study was approved by the Institutional Review Board at An-Najah National University (Approval No. 776.). The authors declare no conflict of interest.

REFERENCES

- Bdier, D., Mahamid, F., & Veronese, G. (2023). *Quality of life and mental health outcomes: The role of socio-demographic factors in the Palestinian context*. Manuscript submitted for publication.
- Boelen, P. A., Olff, M., & Smid, G. E. (2019). Traumatic loss: Mental health consequences and implications for treatment and prevention. *European Journal of Psychotraumatology*, *10*, 1591331. <https://doi.org/10.1080/20008198.2019.1591331>
- Bonanno, G. A. (2004). Loss, trauma, and human resilience: Have we underestimated the human capacity to thrive after extremely aversive events? *American Psychologist*, *59*, 20–28. <https://doi.org/10.1037/0003-066X.59.1.20>
- Canetti, D., Galea, S., Hall, B. J., Johnson, R. J., Palmieri, P. A., & Hobfoll, S. E. (2010). Exposure to prolonged socio-political conflict and the risk of PTSD and depression among Palestinians. *Psychiatry*, *73*, 219–231. <https://doi.org/10.1521/psyc.2010.73.3.219>
- Cann, A., Calhoun, L. G., Tedeschi, R. G., & Solomon, D. T. (2010). Posttraumatic growth and depreciation as independent experiences and predictors of well-being. *Journal of Loss and Trauma*, *15*, 151–166. <https://doi.org/10.1080/15325020903375826>
- Cohen, S., Murphy, M. L., & Prather, A. A. (2019). Ten surprising facts about stressful life events and disease risk. *Annual Review of Psychology*, *70*, 577–597. <https://doi.org/10.1146/annurev-psych-010418-102857>
- Comtesse, H., Lechner-Meichsner, F., Haneveld, J., Vogel, A., & Rosner, R. (2022). Prolonged grief in refugees living in Germany confronted with ambiguous or confirmed loss. *Anxiety, Stress & Coping*, *35*, 259–269. <https://doi.org/10.1080/10615806.2021.1967936>
- Dawas, M., & Thabet, A. A. (2017). The relationship between traumatic experience, post-traumatic stress disorder, resilience, and posttraumatic growth among adolescents in Gaza Strip. *JOJ Nurse Health Care*, *5*, 1–10. <https://doi.org/10.19080/JOJNHC.2017.05.555652>
- Ehlers, A., & Clark, D. M. (2000). A cognitive model of posttraumatic stress disorder. *Behaviour Research and Therapy*, *38*, 319–345. [https://doi.org/10.1016/s0005-7967\(99\)00123-0](https://doi.org/10.1016/s0005-7967(99)00123-0)
- El-Deeb, T. (2017). *The experience and prevalence of PTSD in Palestinian adults living in the Gaza strip* [Doctoral dissertation]. Brunel University London. <http://bura.brunel.ac.uk/handle/2438/14829>
- Ewert, A., & Tessneer, S. (2019). Psychological resilience and posttraumatic growth: An exploratory analysis. *Journal of Experiential Education*, *42*, 280–296. <https://doi.org/10.1177/1053825919859027>
- Friborg, O., Hjermadal, O., Rosenvinge, J. H., & Martiniusson, M. (2003). A new rating scale for adult re-

*Traumatic grief,
health and mental
health in Palestine*

- silience: What are the central protective resources behind healthy adjustment? *International Journal of Methods in Psychiatric Research*, 12, 65–76. <https://doi.org/10.1002/mpr.143>
- Galia, P., Karole, S., Kavishwar, R., Kumta, V., & Vyas, M. (2022). Recognising resilience and post-traumatic growth in adverse situations: a critical literature review. *IAHRW International Journal of Social Sciences Review*, 10, 302–307.
- Ghannam, R. T., & Thabet, A. A. (2014). Effect of trauma due to war on dissociative symptoms and resilience among Palestinian adolescents in the Gaza Strip. *The Arab Journal of Psychiatry*, 25, 107–118. <https://doi.org/10.12816/0006760>
- Greene, T., Itzhaky, L., Bronstein, I., & Solomon, Z. (2018). Psychopathology, risk, and resilience under exposure to continuous traumatic stress: a systematic review of studies among adults living in southern Israel. *Traumatology*, 24, 83–103. <https://doi.org/10.1037/trm0000136>
- Hamamra, B. (2023). Palestinian bereaved mothers of Martyrs: Religious and national discourses of sacrifice and bereavement. *Women & Criminal Justice*, 33, 120–130. <https://doi.org/10.1080/08974454.2021.1902458>
- Hambleton, R. K., Merenda, P. F., & Spielberger, C. D. (Eds.). (2006). *Adapting educational and psychological tests for cross-cultural assessment*. Psychology Press.
- Hammad, J., & Tribe, R. (2021). Culturally informed resilience in conflict settings: a literature review of Sumud in the occupied Palestinian territories. *International Review of Psychiatry*, 33, 132–139. <https://doi.org/10.1080/09540261.2020.1741259>
- Joma'a, A., & Thabet, A. A. (2015). Relationship between stressors due to siege of Gaza Strip on anxiety, depression and coping strategies among university students. *Arab Journal of Psychiatry*, 25, 39–48. <https://doi.org/10.12816/0010504>
- Joseph, S., & Linley, P. A. (2005). Positive adjustment to threatening events: an organismic valuing theory of growth through adversity. *Review of General Psychology*, 9, 262–280. <https://doi.org/10.1037/1089-2680.9.3.262>
- Khursheed, M., & Shahnawaz, M. G. (2020). Trauma and post-traumatic growth: Spirituality and self-compassion as mediators among parents who lost their young children in a protracted conflict. *Journal of Religion and Health*, 59, 2623–2637. <https://doi.org/10.1007/s10943-020-00980-2>
- Kokou-Kpolou, C. K., Moukouta, C. S., Masson, J., Bernoussi, A., Cénat, J. M., & Bacqué, M. F. (2020). Correlates of grief-related disorders and mental health outcomes among adult refugees exposed to trauma and bereavement: a systematic review and future research directions. *Journal of Affective Disorders*, 267, 171–184. <https://doi.org/10.1016/j.jad.2020.02.026>
- Kovess-Masfety, V., Keyes, K., Karam, E., Sabawoon, A., & Sarwari, B. A. (2021). A national survey on depressive and anxiety disorders in Afghanistan: a highly traumatized population. *BMC Psychiatry*, 21, 314. <https://doi.org/10.1186/s12888-021-03273-4>
- Kteily-Hawa, R., Khalifa, D. S., & Abuelaish, I. (2020). Resilience among a large sample of adult Palestinians in the Gaza Strip: Examining contextual sociodemographic factors and emotional response through a social-ecological lens. *Public Health*, 182, 139–142. <https://doi.org/10.1016/j.puhe.2019.12.004>
- Mahamid, F. A., & Bdier, D. (2020). The association between social skills, grief and resilience among Palestinian university students throughout the coronavirus (COVID-19) pandemic in Palestine. *Journal of Concurrent Disorders*, 2, 8–23. <https://doi.org/10.54127/CBKW3627>
- Mahamid, F., Bdier, D., & Chou, P. (2021). Traumatic life events and psychological well-being among Palestinian adolescents: The mediating role of resilience. *Journal of Concurrent Disorders*, 3, 105–117. <https://doi.org/10.54127/GTBR1644>
- Mahamid, F., Veronese, G., & Bdier, D. (2022). War-related quality of life is associated with depressive symptoms and hopelessness among Palestinians: Sense of belonging and resilience as mediating variables. *Cambridge Prisms: Global Mental Health*, 9, 483–490. <https://doi.org/10.1017/gmh.2022.52>
- Marie, M., Hannigan, B., & Jones, A. (2016). Mental health needs and services in the West Bank, Palestine. *International Journal of Mental Health Systems*, 10, 26. <https://doi.org/10.1186/s13033-016-0056-8>
- Marie, M., & SaadAdeen, S. (2021). Mental health consequences of home demolition policy towered Palestinians: Literature review. *International Journal of Mental Health Systems*, 15, 51. <https://doi.org/10.1186/s13033-021-00472-0>
- Marmar, C. R., Schlenger, W., Henn-Haase, C., Qian, M., Purchia, E., Li, M., Corry, N., Williams, C. S., Ho, C. L., Horesh, D., Karstoft, K. I., Shalev, A., & Kulka, R. A. (2015). Course of posttraumatic stress disorder 40 years after the Vietnam war: Findings from the National Vietnam Veterans Longitudinal Study. *JAMA Psychiatry*, 72, 875–881. <https://doi.org/10.1001/jamapsychiatry.2015.0803>
- Murad, K. D., & Abdel Aziz, M. T. (2017). The relationship between traumatic experience, posttraumatic stress disorder, resilience, and posttraumatic growth among adolescents in Gaza strip. *Global Journal of Intellectual & Developmental Disabilities*, 3, 73–82. <https://doi.org/10.19080/GJIDD.2017.03.555616>
- Mutabaruka, J., Séjourné, N., Bui, E., Birnes, P., & Chabrol, H. (2012). Traumatic grief and traumatic stress in survivors 12 years after the genocide in Rwanda. *Stress and Health*, 28, 289–296. <https://doi.org/10.1002/smi.1429>

- Shoham, R., Sonuga-Barke, E., Yaniv, I., & Pollak, Y. (2021). What drives risky behavior in ADHD: Insensitivity to its risk or fascination with its potential benefits? *Journal of Attention Disorders*, *25*, 1988–2002. <https://doi.org/10.1177/1087054720950820>
- Smith, B. N., Spiro, A., Frayne, S. M., Kimerling, R., Cypel, Y., Reinhard, M. J., Kilbourne, A. M., & Magruder, K. M. (2020). Impact of wartime stress exposures and mental health on later-life functioning and disability in Vietnam-era women veterans: Findings from the Health of Vietnam-Era Women's Study. *Psychosomatic Medicine*, *82*, 147–157. <https://doi.org/10.1097/PSY.0000000000000762>
- Tedeschi, R. G., & Calhoun, L. G. (2004). Posttraumatic growth: Conceptual foundations and empirical evidence. *Psychological Inquiry*, *15*, 1–18. https://doi.org/10.1207/s15327965pli1501_01
- Tedeschi, R. G., Calhoun, L. G., & Groleau, J. M. (2015). Clinical applications of posttraumatic growth. In S. Joseph (Ed.), *Positive psychology in practice: Promoting human flourishing in work, health, education, and everyday life* (pp. 503–518). John Wiley & Sons. <https://doi.org/10.1002/9781118996874.ch30>
- Tennant, R., Hiller, L., Fishwick, R., Platt, S., Joseph, S., Weich, S., Parkinson, J., Secker, J., & Stewart-Brown, S. (2007). The Warwick-Edinburgh Mental Well-being Scale (WEMWBS): Development and UK validation. *Health and Quality of Life Outcomes*, *5*, 63. <https://doi.org/10.1186/1477-7525-5-63>
- Thabet, A. A., Tawahina, A. A., Sarraj, E. E., & Vostanis, P. (2013). Death anxiety, PTSD, trauma, grief, and mental health of Palestinians victims of war on Gaza. *Health Care: Current Reviews*, *1*, 112. <https://doi.org/10.4172/hccr.1000112>
- Tinghög, P., Malm, A., Arwidson, C., Sigvardsdotter, E., Lundin, A., & Saboonchi, F. (2017). Prevalence of mental ill health, traumas and postmigration stress among refugees from Syria resettled in Sweden after 2011: a population-based survey. *BMJ Open*, *7*, e018899. <https://doi.org/10.1136/bmjopen-2017-018899>
- Veronese, G., & Pepe, A. (2019). Using the Posttraumatic Growth Inventory-Short Form with Palestinian helpers living in conflict areas. *Measurement and Evaluation in Counseling and Development*, *52*, 207–221. <https://doi.org/10.1080/07481756.2018.1547618>
- Veronese, G., Mahamid, F. A., & Bdier, D. (2022). Subjective well-being, sense of coherence, and posttraumatic growth mediate the association between COVID-19 stress, trauma, and burnout among Palestinian health-care providers. *American Journal of Orthopsychiatry*, *92*, 291–301. <https://doi.org/10.1037/ort0000606>
- Veronese, G., Pepe, A., Massaiu, I., De Mol, A. S., & Robbins, I. (2017). Posttraumatic growth is related to subjective well-being of aid workers exposed to cumulative trauma in Palestine. *Transcultural Psychiatry*, *54*, 332–356. <https://doi.org/10.1177/13634615177062>
- Wagner, G., Glick, P., Khammash, U., Shaheen, M., Brown, R., Goutam, P., Karam, R., Linnemayr, S., & Massad, S. (2020). Exposure to violence and its relationship to mental health among young people in Palestine. *Eastern Mediterranean Health Journal*, *26*, 189–197. <https://doi.org/10.26719/2020.26.2.189>
- Zolkoski, S. M., & Bullock, L. M. (2012). Resilience in children and youth: a review. *Children and Youth Services Review*, *34*, 2295–2303. <https://doi.org/10.1016/j.childyouth.2012.08.009>

*Traumatic grief,
health and mental
health in Palestine*