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The lived experiences of childhood trauma in war: has post-traumatic growth occurred?

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ABSTRACT

Background: This study seeks to explore the Post-Traumatic Growth (PTG) condition, a transformative psychological process that promotes improved cognitive functioning and resilience in individuals who suffered childhood trauma, including those affected by the Iran-Iraq war. PTG denotes positive psychological changes, such as enhanced reasoning abilities and emotional strength (Tedeschi, R. G., & Calhoun, L. G. (2004). Posttraumatic growth: Conceptual foundations and empirical evidence. *Psychological Inquiry*, 15(1), 1–18)).

Method: This study views trauma responses as complex and multidimensional, including not only negative outcomes but also coping strategies and psychological growth. Data was collected through semi-structured interviews with 11 participants who witnessed the Iran-Iraq war during childhood. Participants were from a broad spectrum of ethnic backgrounds, reflecting the multiethnic diversity of the war-affected areas. This is significant as their cultural background could affect how they process and heal from trauma due to the multiplicity of values, beliefs, and behaviours. Also, participants' socio-economic backgrounds ranged from low to middle-income, allowing for an investigation of how trauma and growth are impacted by financial resources and constraints. Data were analyzed using Moustakas's phenomenological analysis approach.

Results: The findings revealed eight primary and twelve secondary themes ranging from psychological effects and long-term coping mechanisms and wartime recollections. The analysis also revealed distinct patterns of trauma symptoms and growth in adults approaching middle age. The available evidence points to the fact that, although the war-afflicted participants had to contantly live with the lingering effects of trauma across different stages of their lives, they continued to flourish and remain resilient with efficient stress management.

Conclusions: The study emphasizes that, in theoretical terms, unexpected developmental steps are crucial, suggesting that childhood trauma, while commonly associated with negative outcomes, can also lead to growth and resilience in certain circumstances.

Las experiencias vividas de trauma infantil en guerra: ¿Se ha producido crecimiento postraumático?

Antecedentes: El presente estudio busca explorar la condición del Crecimiento Postraumático (PTG en su sigla en inglés), un proceso psicológico transformativo que puede promover mejoras en el funcionamiento cognitivo y la resiliencia en individuos que han sufrido trauma infantil, incluyendo aquellos afectados por la guerra de Irán e Iraq. PTG denota un proceso transformacional psicológico positivo induciendo cambios positivos masivos en la mente, incluyendo mejoras en las habilidades de razonamiento y fortaleza emocional (Tedeschi, R. G., & Calhoun, L. G. (2004). Posttraumatic growth: Conceptual foundations and empirical evidence. *Psychological Inquiry*, 15(1), 1–18).

Método: Este estudio ve que las perspectivas hacia las respuestas al trauma son complejas y multidimensionales y que pueden no solo incluir resultados negativos, sino que también varias estrategias de afrontamiento y crecimiento psicológico. Los datos fueron recolectados a través de entrevistas semiestructuradas con 11 participantes que presenciaron la guerra de Irán e Iraq durante su infancia. Los participantes en este estudio fueron de un amplio espectro de características culturales, representando la diversidad multiétnica de las áreas devastadas por la guerra. Esto es de significancia ya que su herencia cultural podría posiblemente afectar cómo ellos procesan y se curan del trauma debido a la multiplicidad de valores, creencias, y conductas. También, las características socioeconómicas de los participantes oscilaron entre ingresos bajos a medios. Esto, nos permitió investigar cómo el trauma y el crecimiento son impactados por los recursos financieros y las limitaciones. Para analizar los datos, nos basamos en la perspectiva de análisis fenomenológico de Moustakas.

Resultados: Los hallazgos revelaron ocho temas principales y doce temas secundarios, desde los efectos psicológicos y los mecanismos de afrontamiento de largo plazo y los recuerdos de los tiempos de guerra. El análisis también reveló patrones distintivos de los síntomas de trauma

HIGHLIGHTS

- Transformation through Adversity: The paper is an attempt to explain how survivors of childhood trauma in the Iran-Iraq war experience post-traumatic growth, transforming adversities into personal strengths through adaptive coping mechanisms.
- Cultural and Socioeconomic Influences: The present study finds an echo in literature identifying the role of cultural and socioeconomic backgrounds in shaping trauma responses and growth processes of survivors. Specific details are provided on divergent ways of coping and thriving.
- Long-Term Psychological Impact: The findings from this study yield valuable insights into the variation of psychological patterns of coping and potential growth for adults who underwent war-related traumas in childhood. These results highlight lasting positive change after persistent trauma.

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y crecimiento en adultos que se acercaban a la edad media. La evidencia disponible apunta al hecho que, aunque los participantes afectados por la guerra tenían que vivir constantemente con los efectos persistentes del trauma a través de las diferentes etapas de sus vidas, ellos continúan floreciendo y permanecen resilientes con habilidades de manejo del estrés eficientes.

Conclusiones: El estudio enfatiza que, en términos teóricos, los pasos de[open-strick]l[close-strick] desarrollo inesperados son cruciales, lo que sugiere que el trauma infantil, aunque comúnmente se asocia con resultados negativos, también puede llevar al crecimiento y la resiliencia en ciertas circunstancias.

1. Introduction

This manuscript explores the lived experiences of childhood trauma in war, specifically focusing on Post-Traumatic Growth (PTG) dimension, a notion developed by Tedeschi et al. (1998). Post-traumatic growth (PTG) refers to a positive psychological change that arises from confronting challenging life situations, beyond usual psychological growth experiences (Tedeschi & Calhoun, 2004). PTG embeds a deep transformation in one's beliefs, priorities, and perception of self and others, and the world, a transformative process fuelled by facing trauma (Tedeschi & Calhoun, 2004). It has both constructive (self-transforming) and an illusory (self-deceptive) sides. The constructive side is accompanied by growth over time, while the illusory side may decrease (Zoellner & Maercker, 2006). Previous findings indicate that post-trauma growth is not a result of trauma itself but rather a consequence of how one approaches and adapts to experiences. Deliberate rumination, positive coping mechanisms, and supportive relationships are, as theoretically established, facilitative factors of PTG (Tedeschi & Calhoun, 2004; Zoellner & Maercker, 2006). It is, therefore, crucial to identify specific predictors and mechanisms contributing to PTG over time in trauma survivors, to understand the pathways through which growth occurs.

PTG is correlated with some variables that predict it over time. For example, positive coping strategies and social support are the significant predictors of PTG in trauma survivors (Mesidor & Sly, 2019). Research has demonstrated an important interplay among maternal mental health, trauma history, and child outcomes. Three comorbid patterns of mothers with childhood trauma, namely: Resilient, Vulnerable, and Chronic High-Risk, where social support belonged to the indicators that differentiated between them as background variables affecting behavioural manifestation in children (Oh et al., 2016). As a matter of fact, PTG predicts some positive effects that improves mental health over time, further boosting life satisfaction and well-being (Zoellner & Maercker, 2006). Possible consequences of PTG could be increased prosocial behaviour, stronger spirituality, or life-related purpose, and general resilience (Triplett et al., 2012).

Nonetheless, despite the positive implications of PTG, it often coexists with psychological distress, indicating a more complex relationship between trauma reactions and growth.

While PTG can lead to positive psychological changes, it differs from PTSD and other psychiatric disorders, with which it can co-occur (Bürgin et al., 2022; Kadir et al., 2018). This may include co-occurrence of positive and negative changes in different domains, which explains why, in some quantitative studies, PTSD and PTG are comorbid (Zoellner & Maercker, 2006). For instance, personal growth including personal strength and interpersonal relationships may be accompanied by increased anxiety or depression. That is, changes in opposite directions occurring simultaneously in different domains underlie the complexity of trauma responses and lead to a concern for commensurately comprehensive therapeutic approaches (Tedeschi & Calhoun, 2004). This complexity is particularly evident in instances of childhood trauma caused by war, whereby the impact on psychological and emotional development are profound.

War, as a major source of trauma, exerts severe and enduring effects on psychological development, particularly in childhood. It might expose people to trauma which later affects their cognitive functioning, emotional regulation, and coping skills. Such a traumatic event will impair problem-solving by causing the victim to lose self-confidence, attention, memory, flexibility, and creativity. It may further lead to negative emotions such as fear, anger, or guilt, which hamper rational thinking and impede decision-making (Brewin et al., 2000; Lerner et al., 2015; Van der Kolk, 2014). Nonetheless, war may function as a stimulus for resilience, enhancing a person's capacity to rise above adversity and adapt to changes. They may seek help, collaborate, learn through their mistakes, and make correct decisions in times of problems. Resilient people tend to do so more often (Bonanno, 2004).

It is crucial to acknowledge that childhood trauma, particularly in areas stricken by war, can lead to different long-term outcomes, including both negative consequences and psychological development. In this

direction and in accordance with the extant literature, childhood trauma, particularly in war zones, can lead to long-term negative consequences such as psychiatric conditions, addiction, self-injury, and suicidal thoughts (Betancourt et al., 2013; Murthy & Lakshminarayana, 2006). According to the World Health Organization, 10% of children affected by war will show signs of trauma later in life, and another 10% will face challenges in normal functioning (Murthy & Lakshminarayana, 2006; Organization, 2005). However, not all individuals respond to trauma negatively. Actually, some experience a change in psychological growth (Vloet et al., 2017). It brings us to the essential aspect of understanding PTG and how it is different from other adaptive responses, such as resilience.

Understanding PTG needs careful consideration of its dimensions, fundamental features, and foundational processes.PTG is not the same thing as resilience, which alludes to the human capacity to recover from stress and bounce back into the normal levels of functioning without long-term negative outcomes. PTG involves new perspectives, increased appreciation for life, and more personal strength (Hobfoll et al., 2007). Its prevalence rates within different populations and contexts vary, especially in war stricken areas where supportive social contexts and effective coping strategies play an important role (Calhoun & Tedeschi, 2014; Kilmer et al., 2009; Prati & Pietrantoni, 2009; Taku et al., 2009). Though this distinction is a given, the specific processes underlying PTG and its differences among individuals needs further investigation.

The specific concrete mechanisms by which PTG develops and the impact of PTG across different periods and populations have not yet been fully examined. Indeed, one may argue that war has a very bad influence on the emotional states of the young generation. It exposes them to traumatic events, violence, loss, displacement, and deprivation that are sources of stress, anxiety, worry, and apprehension. However, the same postulation has been similarly put forward about war not meaning destruction of the young people's emotional states, marking their lives. Instead, some children or adolescents might prove resilient, turn adaptable, or even grow in the face of adversity (Betancourt et al., 2020; Bürgin et al., 2022; Frounfelker et al., 2019). While some literature points out that war is the factor in ruining endurance and resistance by massive destruction, disturbing public health, and collapsing social and economic order, others reveal it can create conditions conducive to resilience (Olmsted, 2015). That being said, a more integrated strategy is needed to bring these diverse findings together and clarify the underlying processes.

Accordingly,, this paper, fills this literature gap with a proper understanding of PTG more so in the context of childhood trauma from war. Previous research is lacking in providing an in-depth exploration of post-

traumatic growth (PTG) and possibilities for its enhancement through specific treatment interventions. Conceptually, this study mostly draws upon the post-traumatic growth (PTG) theory of Tedeschi and Calhoun, while referencing the Cognitive Processing Model (Zoellner & Maercker, 2006) to further develop specific elements of the conceptual framework.

In Iran, the cultural context influences the meaning and proper responsegiven to trauma. The experience of trauma and its process in this country can be conditioned by cultural beliefs, modesty standards, and social norms. When speaking of PTG, such variables should be taken into account. Understanding PTG within such a cultural milieu will lead to the development of more effective strategies of support and intervention sensitive to the special needs of children who have been exposed to war-related trauma. The study's particular concerns follow from the broader cultural, social, and economic context of Iran.

The overall aim of this research study is to examine how PTG manifests itself amongst those who experienced trauma as a result of the Iran-Iraq War during their childhood. More precisely, the larger picture questions being asked in this research are: What cultural, social, and economic factors facilitate or hinder posttraumatic growth in individuals? How, over time, does resilience develop and change, along with changing coping mechanisms, in subjects who experienced trauma at an early age? The present study also attempts to propose a framework for developing culturally-sensitive interventions that may ensure the long-term psychological growth of war-afflicted populations. Further, this study intends to propose one new theoretical model indicating that responses to trauma, including potential post-traumatic growth, are deeply inspired by this age group's respective cultural and social contexts. Whereas existing theories of cultural trauma do indeed consider how collective trauma responses reflect societal and historical contexts, this model focuses on describing ways by which cultural belief systems, social norms, and community structures influence personal recovery and growth after trauma. The meaningfulness ascribed to trauma and the pathways through which individuals process and recover from traumatic experiences are a function of these variables as displayed in the model. It would, therefore, unify the integration of resilience and cultural adaptation in the recovery process from trauma, thereby opening a new window into the psychological outcomes of those affected by the war.

2. Method

2.1. Research design

Exploring the lived experiences of individuals who have undergone significant trauma, such as war

experiences in childhood is where the phenomenological approach excels. Phenomenology is the qualitative research strategy focused on seeking to understand how individuals perceive and make meaning of their experiences (Creswell & Poth, 2016). To address the research questions raised, a qualitative design through phenomenological method is selected. By focusing on an in-depth description experiencers of childhood trauma, phenomenology allows for a nuanced exploration of how these individuals make sense of their trauma, adapt, and potentially experience post-traumatic growth, providing insights into their coping mechanisms and resilience strategies.

Demonstrating its efficacy and relevance, phenomenology has been successfully employed in several other studies to investigate the experiences of war survivors. Hussain and Bhushan (2011) investigated the psychological impact of terrorism on children in India through a phenomenological lens, discovering the significant impacts of such experiences on their mental health and coping strategies.

This example demonstrates the value and suitability of phenomenology in capturing the depth and breadth of traumatic experiences childhood war survivors and the subsequent growth processes. By prioritizing the subjective meanings attributed to their experiences, phenomenological research offers critical insights into the mechanisms of resilience and post-traumatic growth, contributing to the development of targeted support and intervention strategies for this population.

2.2. Participants

The persistent component of Posttraumatic Growth (PTG) offers both opportunities and problems for understanding how survivors of childhood trauma, particularly those impacted by the Iran-Iraq war, process and interpret their experiences. The individuals' current age, ranging from 38 to 45 years old (5 males and 6 females), allows for temporal distance from the traumatic events, thereby providing a unique viewpoint on their long-term effects. On the other hand, this temporal distance also complicates retrospective assessment, as there is a methodological possibility of threats to validity through mnemonic distortion or reinterpretation of former events. These threats can be controlled with the help of phenomenology as a research methodology that focuses on the lived experiences of participants and meanings attached to them.

We employ numerous strategies to address the possibility that the discovered PTG may indicate a need for meaning in the present rather than an event in the early years after trauma. First, PTG and meaning-making are dynamic, and trauma interpretation and growth can vary over time (Tedeschi &

Calhoun, 2004). This perspective enables us to examine both PTG's immediate and long-term effects, completing our understanding of its evolution.

Our method emphasizes triangulation of data sources, including participants' past narratives of their trauma experiences and current reflections. We can identify consistency and change in participants' narratives across time, revealing PTG's continuity and elements affecting its evolution (Creswell & Creswell, 2017).

To fully grasp the context of the Iran-Iraq war and participants' post-traumatic growth (PTG), it is necessary to describe their cultural, ethnic, and socio-economic backgrounds while preserving anonymity. This study recruits participants with a variety of ethnic origins, including Kurdish, Arab, and Persian, reflecting the multiethnic fabric of the war-stricken areas. Culture offers a wide range of values, beliefs, and behaviours that may affect trauma processing and recovery. Whereas Kurdish participants derived strength through community support and collective identity, religious faith and practices helped Arab participants. As for trauma, Persian participants applied personal reflection and a philosophical understanding that is largely consistent with cultural values about the ability to withstand and wisdom. Cultural differences are, therefore, highly influential in the perception and processing of trauma, indicating the necessity for such nuances in the understanding of PTG within multiethnic war-stricken populations.

The participants' backgrounds ranged from lower to upper middle class in terms of socio-economic status. This variety enables us to examine how economic resources and difficulties affect trauma and growth. For instance, participants from lower socio-economic levels discussed the compounded stress of poverty and war, while those from higher socio-economic strata shared experiences of relative stability amidst the chaos, providing a nuanced view of economic context and PTG.

Adversity management facilitated by the collective family structure and community support were valued in the cultural environments in which the participants grew up. This cultural basis influences communal vs individualized trauma recovery and resilience. The cultural emphasis on interdependence was shown in the narratives where use of community assistance and collective coping techniques can be seen.

Participants were selected purposively to ensure that they met the following inclusion criteria, which were as follows: people who have faced childhood trauma as a result of the Iran-Iraq war; people who were between ages 38 to 45 at the time of the study, thus giving sufficient temporal distance from the events; people willing to take part in an in-depth interview and to narrate their experiences. The following criteria were used to exclude participants: those who

have current severe psychiatric disorders requiring treatment that would significantly affect the ability to be interviewed; those traumatized outside the context of the Iran-Iraq War.

An advertisement was placed for this study, and all those interested persons were invited for a brief screening interview to ascertain their eligibility for the study, based on the already set inclusion and exclusion criteria. The brief screening was conducted by trained research assistants all of whom supervised by the principal investigator to ensure there was consistency in the selection process and adherence to all ethical conduct procedures.

The present research study had a small sample size, but there is adequate documentation of PTG in a number of diverse populations, which does indicate that it is prevalent enough to be investigated in this group. Deep analysis of these 11 cases provides insights into finely detailed and uniquely personal pathways through which PTG might manifest, thus giving a richer understanding of the conditions under which PTG can develop.

2.3. Data collection

Data collection was carried out through semi-structured, in-depth interviews, allowing for flexibility in exploring the unique experiences and perspectives of each participant. In developing our interview protocol, we opted for a meticulous approach by curating questions from a diverse range of sources within the extant literature on childhood trauma and post-traumatic growth (PTG). The aim was to craft a comprehensive framework that would illuminate the intricate dynamics of war-related childhood trauma and its subsequent effects. To achieve this, we integrated insights from seminal works in the field, as well as recent empirical studies, to ensure that our questions were both grounded in established theories and consistent with contemporary understandings of trauma and resilience.

The interview questions were constructed following an extensive literature review. Subsequently the questions were refined through a collaborative process involving the study's authors and a panel of experts in psychology, particularly those with a focus on trauma and resilience. Critical discussions were held during this iterative process to ensure the relevance, sensitivity, and comprehensiveness of each question, which led to the finalization of a set of questions that would best explore the phenomena of interest.

The finalized interview protocol thus reflects a synthesis of scholarly observations and practical considerations, tailored to elicit rich, nuanced narratives of the participants' experiences. Standardization ensured that all questions were asked, and the data collected had consistency and depth. Key areas of inquiry included the nature and context of the traumatic events experienced during childhood, the immediate psychological responses and long-term effects of such experiences, coping strategies employed, the role of social and familial support systems, and the participants' reflections on growth and change ensuing from their adversarial experiences. The interview questions are as follows:

1. How would you describe your upbringing? Your answers will be treated with the utmost confidentiality.
2. What are the psychological effects of the war on your life?
3. What direct or indirect psychological impact has the war had on your social, economic, and educational development and progress?
4. How willing are you to express your feelings on different subjects?
5. Can you adjust circumstances to meet your needs? Do you demonstrate adaptability, acceptance, or passivity? You can adapt and bring about change.
6. To what extent are you open to discussing your emotional and interpersonal issues and challenges with others? If necessary, do you seek guidance from counsellors and psychologists?
7. When faced with immediate life challenges and decision-making, what is your initial reaction and subsequent action?
8. How actively do you engage in mental and physical relaxation activities such as yoga, meditation, or other stress-relieving activities? Do you maintain a routine of stress-relieving activities in your daily life?

By anchoring our questions in a broad spectrum of academic perspectives and ensuring that subject matter experts vetted them, we aimed to uphold the rigour of our phenomenological exploration and generate a deep, empathetic understanding of the lived experiences of individuals who have navigated the complex journey from trauma to growth in the shadow of war.

This methodical approach to developing our interview protocol underscores our commitment to capturing the depth and diversity of our participants' experiences, thereby contributing valuable insights to the ongoing discourse on childhood trauma and PTG in the context of war. Interviews were conducted in a place chosen by the participants to ensure their comfort and lasted between 30 to 45 minutes. With participants' consent, interviews were audio-recorded and later transcribed verbatim by professional transcribers, followed by participant validation for accuracy.

2.4. Ethical considerations

The study was conducted in accordance with the defined ethical guidelines of the Declaration of

Helsinki and other moral principles put forward by APA. Participants were fully informed about the study's purpose, their rights, potential risks and benefits, and the measures taken to ensure their confidentiality, including data anonymization. Prior to data collection, informed consent was obtained from all participants. Given the sensitive nature of the topic, care was taken to conduct the interviews in a respectful, empathetic, and non-intrusive manner. Participants were informed about the available psychological support services in case they experienced distress during or after the interviews.

2.5. Data analysis

Data analysis followed the guidelines for phenomenological research outlined by Moustakas (1994). In this study, data analysis was approached with a keen awareness of the intrinsic complexities of bracketing in qualitative research. Bracketing, also known as 'epoché', refers to the process whereby an individual suspends, as far as possible, his own knowledge and experience and brings to the data unbiased openness (Moustakas, 1994). Recognizing the practical challenges of completely setting aside personal biases and preconceptions, our research team engaged in an iterative process of reflexivity throughout the study. This involved regular debriefing sessions where researchers openly discussed their preconceptions, continuously revisited and reflected upon these biases, and actively sought to mitigate their influence on the data interpretation process. This rigorous approach to bracketing was not only acknowledged in the limitations section but was also a fundamental component of our methodological rigour.

The methodology for identification of the themes followed the guidelines of conducting phenomenological research by Moustakas, 1994. The steps taken were:

1. The researcher achieved initial immersion into the data by repeatedly reading the transcripts of the interviews to increase familiarity with the data and totally understand the experiences of participants.
2. Identification of Significant Statements: Key words and phrases, and sentences that had direct relevance to the research questions were identified and highlighted. These significant statements were copied verbatim from the transcripts.
3. Formulation of Meanings: Each significant statement was then analyzed to derive its underlying meaning. This meant interpreting what the participants said to get to the core of their experiences.
4. Clustering Themes: These formulated meanings were grouped into clusters of themes that represent common patterns across participants' experiences.

5. Textural and Structural Descriptions: The textural descriptions of what participants experienced, along with the structural descriptions entailing how they experienced it, were developed for each theme.
6. Composite Description: The next stage was the construction of a composite description of the phenomenon synthesizing the textural and structural descriptions at the individual level into a coherent narrative.

The methods used to maximize the reliability and validity of the findings at all stages in the process of data collection included: interrater reliability; that is, Independently, several researchers coded the data and later compared the results for consistency. Any discrepancies were discussed and settled by agreement. Reflexivity and bracketing: the researchers conducted reflexive work regarding possible biases or preconceptions.

3. Results

Having conducted qualitative analysis of interviews with participants who lived during the Iran-Iraq war, eight main themes and twelve sub-themes were discovered. Qualitative analysis of the interviews revealed eight key themes and twelve subthemes, representing a wide spectrum of experiences and coping strategies of participants who lived during the Iran-Iraq war; these range from war memories to long-term psychological impacts and coping mechanisms. The findings manifest how the cultural values, social support systems, and age of experience played a central role in the shaping of trauma perception and, hence, subsequent resilience of participants. For example, respondents with strong cultural backgrounds and social support seemed to possess adaptive coping skills and resilience. Furthermore, it was the participants' age at the time of their traumas that determined to a large extent how people assimilated and recalled the events, ranging from a mix of fear and brotherhood for the youngest to themes of loss and long-term effects of war for the eldest. The nuanced insights that exist herein place a huge premium on external variables – individualized experiences, cultural values, and social dynamics – in explaining these divergent ways of responding to trauma and PTG development.

These themes entail everything from war memories to long-term coping strategies and psychological impacts. The first theme was war memories, which consisted of two subgroups of admissible and unpleasant memories, and the second theme was the effects of war on emotional states, which itself was categorized into two subthemes and was an immediate impact of war. The next themes concern the participants' presence, which included endurance and resistance

to restrictions and pressures, expression of emotions and emotional reactions, reactions to difficult conditions and changes, communication and dialogue, problem-solving approaches, and strategies to deal with stress. Below, each theme is described in detail, accompanied by qualitative evidence from participants' accounts, to delineate the rich tapestry of their lived experiences and the complex interplay between trauma and resilience.

Main Theme 1: Memories of War

This theme captures participants' recollections of the war, divided into 'pleasant' and 'unpleasant' memories. Pleasant memories often involve instances of camaraderie and resilience, while unpleasant memories often involve loss and direct exposure to violence.

Eight participants reminisced about the war with a nuanced mixture of joy and sorrow. For instance, P9 (male) reflected on childhood resilience amidst the chaos, 'Although that time was a combination of environmental stress and childhood joys, when I think about my childhood, I often remember pleasant memories'. Conversely, P8's (female) account goes as follows: 'due to the painful scenes of the destruction of houses or the loss of neighbors from far and near, and also the sound of sirens and rockets that I constantly heard, when I think of my childhood, I don't remember a pleasant memory', illustrates the enduring impact of traumatic events.

Main Theme 2: Effects of War on Emotional States

The psychological effects of war were discussed by participants, with different emotional responses such as anxiety, fear, and adaptive disassociation being revealed in the process. Approximately half of the participants had experienced anxiety, worry, and apprehension caused by various reasons, including change of residence, change of social class, unfulfilled expectations, and observing & hearing distressing images and sounds respectively. One of the participants (P11, male) described this psychological effect as follows:

> We had to leave our place, but what bothered me the most as a child was waiting for the end of the war and for my uncle to return from the war as a soldier. He was a very loving person, and the bitterness of waiting was worse than anything else. Of course in the end, unfortunately, he never came back.

However, the other participants often ignored the existing conditions due to the support and companionship of their peers and other children, while being aware of their fears and anxieties. For example, another participant (P2, female) mentioned that:

> Families usually gathered in the shelter or the basement of the house during the rocket attacks, and because there were many children in each family and we were all about the same age, sometimes we considered it like a game and we were happy and smiling as we were together. Of course, we understood what was happening, but maybe our childish minds couldn't bear to analyze the tragedy that was happening, so it was as if a barrier had been created in our minds to protect us from damages.

P11's narrative of anticipation and loss, 'the bitterness of waiting was worse than anything else', contrasts with P2's account of using imagination as a coping mechanism during attacks, highlighting diverse psychological adaptations to trauma.

Main Theme 3: Endurance and Resistance to Limitations and Pressures

This theme explores the resilience and tenacity participants developed in response to the hardships imposed by the war, which affected their approach to challenges in later life.

P2 (female), speaks to the generational impact of scarcity, 'The shortages during the war had almost the same effects on my peers, we had limited educational facilities, there was a lack of food, oil, and gas everywhere and we had to be content. I remember one day we heard that a rocket hit the neighbor's house, while within a few minutes before, some children gathered for a birthday party. From that day on, I was even afraid to say that I wanted a birthday party as if I had reached a power of understanding out of fear', indicating the collective cultivation of resilience.

Main Theme 4: Expression of Emotions and Emotional Reactions

Reflecting on societal norms and personal tendencies towards emotional expression, this theme explores the participants' reticence or willingness to share their feelings.

The broader social and cultural influences on personally emotional management strategies are revealed by the commonality of P3's (female) guarded emotional expression, 'In school and even later in society, people of my age were treated very hard. We were not allowed to say no, we were not allowed to express our opinions and disagreement. I'm not an introvert but I think that the conditions of society made our generation tough people'.

Main Theme 5: Reaction to Circumstances and Changes

The theme captures the full spectrum of participants' responses to change, which range from adaptation and acceptance to active resistance and a desire for improvement.

The dichotomy of adaptation versus resistance is exemplified by P10's (male) 'acceptance, In our generation, everyone was encouraged to adapt. I try to cope with the situation. In addition, I am now on the verge of middle age, and naturally, at this age, people have reached stability in terms of mental peace, financial security, and social status. I think this is the reason

why we don't have much desire to act and change the conditions like before', and P4's (female) proactive stance, 'I may not be able to change social or economic conditions on a large scale, but I believe that I should do the best I can. Why not live a better life when I can modify and improve the conditions around me?'

Main Theme 6: Communication and Dialogue

Participants discussed their propensity for seeking advice and dialoguing about challenges, underscoring the importance of communication in coping with difficulties.

P6's (female) reliance on trusted conversations, 'Of course, not with everyone, but I talk to my family members about issues that need to be resolved, maybe I need to talk to a counselor, which I do. I never feel free from hearing and using the opinions of reliable people', illustrates the therapeutic role of communication within participants' support networks.

Main Theme 7: Problem-Solving Approaches

This theme focuses on the methods participants use to face and solve crises, highlighting different strategies such as avoidance and active problem-solving.

Contrasting approaches to problem-solving are noted in P7's (male) initial avoidance when he says that, 'My first reaction is to run away and ignore the problem, after that, I start to think about it and get stressed. But eventually – although it's hard – I start to decide how to solve the problem'. This runs counter to P6's (female) methodical strategy, 'First of all, if the problem is urgent, it naturally creates a series of emotions in me. When these emotions subside, I think about that problem, sometimes even write about it and the ways to solve it. Then I consult with someone else and at the end, I decide with more thought and evaluation'.

Main Theme 8: Strategies for dealing with stress

Here, the focus is on the routines or activities, participants engage in to mitigate stress, reflecting their individual preferences for self-care.

The universal embrace of stress-relieving activitiesis reflected in P1's description as follows: as shared by P1, 'I am very interested in these activities. I was able to calm my soul with meditation, of course, I still have a long way to go, but I also believe in spiritual healing such as clearing energies and chakra therapy. Other activities such as hiking, are good for me, it makes me feel better'. This emphasizes the importance of self-care practices in coping with the long-term consequences of trauma.

These findings reveal a complex interplay of experiences, emotions, and coping strategies shaped by the trauma of war. The dichotomy of memories, the struggle between resistance and adaptation, and the universal need for connection and self-care, paint a nuanced picture of resilience and growth in the aftermath of conflict. These insights form a foundation for further exploration into post-traumatic growth and lend valuable perspectives for therapy and support. A detailed breakdown of these themes and subthemes is provided in Table 1.

4. Discussion

This study focuses on exploring and reflecting experiences of childhood and adolescent trauma during the Iran-Iraq war. The themes involve memories of war, impacts of war on emotional states, endurable self and resistance to limitation, expression of feelings, reactions to situations, communication and talking, ways of solving problems, and coping with stress. Both pleasant and unpleasant recollections were described by the participants. Some portrayed resiliency and brotherhood, while others anxiety and fear. This study identified the development of coping mechanisms and the building up of resilience that have kept the participants transitioning into adulthood. The study also highlighted that among these factors were communication and the different practices

Table 1. Main and sub themes of participants' answers to the interview's questions.

Main themes	Sub-themes	
Memories of war	Pleasant memories: social and emotional supports, the role of family and peers, and communal lives.	Unpleasant memories: unpleasant observations and loss of loved ones and acquaintances.
Effects of war on emotional states	Anxiety worry and apprehension: change of residence, change of social class, unfulfilled expectations, and hearing distressing images and sounds.	Ignoring the situation while being aware of the existing situation: supporting and accompanying peers and other children, creating a similar defense mechanism.
Endurance and resistance to limitations and pressures	Interest in collecting and storing things, mostly self-made, and being on one's feet, being diligent and hardworking.	
Expression of emotions and emotional reactions	Reluctance to express emotions: educational conditions and society, lack of courage, conservatism.	
Reaction to circumstances and changes	Accepting the situation and adapting: lack of mental energy, becoming more conservative bypassing the age stage of 40 years.	Resistance to destructive conditions and trends and making changes and reforms: correcting conditions that are not following what has been learned, high endurance and being self-made.
Communication and dialogue	Willingness to talk and consult: friends and trusted people, counsellors, and psychologists.	
Problem-solving approaches	Staying away from the issue and finally solving the problem: running away, denying reality, keeping silent, thinking, making decisions.	Emotional projection and finally solving the problem: the emergence of emotions of anger, fear, and sadness, thinking and taking advice, evaluating the problem, and making a decision.
Strategies for dealing with stress	Interested in stress-relieving and relaxing activities: sports, reading books, listening to music.	

of taking care of oneself that helped in relieving the stress and promotion of psychological growth.

In line with a new theoretical perspective introduced in this study, post-traumatic growth (PTG) is not merely an individual phenomenon but is profoundly influenced by social and cultural contexts. This theory asserts that particular socio-cultural contexts can effectively promote and sustain post-traumatic growth by offering social frameworks and norms that promote coping and adaptability. The present research points to how individuals navigate trauma and build resilience, which in turn again informs future frameworks of PTG and its facilitation through interventions.

The emergence of PTG following trauma is not a universal or inevitable consequence. It is a complex, dynamic process that also varies considerably among individuals and is influenced by numerous different factors, including the nature and severity of the trauma, personality, cognitive processing, and the availability of social support (Joseph & Linley, 2008; Tedeschi & Calhoun, 2004). Distress and suffering thus coexist with the process of PTG. It does not negate the bad effects of trauma but creates a complex interplay between psychological distress and positive change. Such duality thus indicates that PTG does not point to an absence of trauma-related distress but rather how people derive meaning from their traumatic experiences.

The Cognitive Processing Model identifies that PTG results from the need for conscious thought and working through or reconstructing one's worldview in the aftermath of a traumatic event (Park et al., 2018; Zoellner & Maercker, 2006). The model emphasizes how cognitive engagement and reflective processes enable an individual to integrate traumatic experience into personal development. The findings support the Cognitive Processing Model by underlining the role of cognitive strategies and deliberate reflection. In younger populations, post-traumatic growth (PTG) may manifest through emotional regulation, improved problem-solving skills, and the building of a cohesive narrative which incorporates the trauma into their personal history (Kilmer et al., 2010). These mechanisms are crucial for post-traumatic development (PTG) and represent the adaptive processes which promote growth, rather than acting as direct results of trauma.

Participants performed activities that enhanced their mental health and well-being, functioning as both coping strategies and accelerators for personal growth. Trauma caused by war could limit emotional expression in adulthood by obstructing the capacity to regulate, express, and control emotions. Although participants' regular hesitance about expressing their emotions, its creation of conducive psychological and environmental settings may mitigate these effects (Bürgin et al., 2022; Frounfelker et al., 2019; Werner, 2012).

Responses to trauma among adults varied among participants. Some showed resilience by conquering adversity and adjusting to change, while others showed acceptance of difficulties and attempted to adapt. Social support has proven to be an essential component in buffering the negative effects of trauma and stress on mental and physical health, facilitating recovery and adaption (Werner, 2012). Demonstrated effective communication and problem-solving skills highlighted the importance of connections with others in the post-traumatic growth process (Wessells, 2017).

Participants engaged in self-help activities such relaxation and self-care, in accordance with the World Health Organization's (Organization, 2005) recommendations, emphasizing the importance of these activities in reducing stress and increasing their overall well-being over time.

Beyond personal psychological processes, the broader context of social and cultural changes had significant effects on individuals' growth trajectories. PTG was both helped and hindered by the sociocultural upheaval that occurred during and after the Iran-Iraq war. Some viewed these changes as opportunities for involvement in communities and personal growth, while others perceived them as new challenges that needed constant adaptation. In the context of PTG, this highlights the complicated relationship between personal resilience and external factors.

Understanding post-traumatic growth following childhood trauma requires a holistic approach that takes into consideration both individual psychological processes and the socio-cultural context of recovery and growth. This viewpoint emphasizes the importance of supportive policies and community initiatives that foster conditions conducive to post-traumatic growth, particularly among those who suffered trauma in their formative years. Therapeutic methods that focus on strengthening resilience, developing strong social networks, and encouraging reflective practices may be especially effective for promoting post-traumatic growth among trauma survivors.

It is plausible that several limitations may have influenced the results obtained. At first, some participants were reluctant to recall or recount their childhood memories. This is presumably due to the severity of the emotional damage that they suffered or maybe because of the length of time that has passed since that event. Finally, to examine each component that affects post-traumatic growth separately, this research issue requires a longitudinal investigation (spanning several months), which was regrettably not attainable in our study. These limitations highlight the difficulty of collecting information related to the topic under discussion.

Following this, the importance of this lies in the fact that the findings in this study can be considered to be of narrow generalizability in their particular cultural and socio-political setting. Whereas the observed mechanisms of resilience might also be valid for other war-affected populations, research is needed to reveal how diversity factors like socio-economic status, gender, and cultural background affect PTG. That will offer a more refined understanding, across contexts, of recovery from trauma and help develop culture-sensitive interventions.

The perception of trauma and emotional responses could also have been changed by the changes that occurred in the participants' lives after the war, both in their social milieus and in themselves, through personal development and changes in cultural norms. Such post-war changes may impact the way that participants understand and deal with their experiences of trauma and hence impact the findings. Furthermore, as the current study focused on individuals who were either children or adolescents during the war, stronger arguments could be built if it were possible to interview younger populations, closer in age to their war experiences. This would provide fresher perspectives and might reveal different dimensions of trauma processing and PTG.

Conclusion

This study emphasizes the complex connection between individual psychological processes and socio-cultural contexts in the emergence of post-traumatic growth in persons who experienced childhood trauma during the Iran-Iraq war. The findings show that trauma may cause considerable distress, but it may also lead to positive psychological transformation through coping strategies, social support, and cultural factors. Interventions designed for promoting post-traumatic growth should incorporate these features to increase resilience and promote recovery among trauma survivors. Creating culturally sensitive therapies and supporting community resources are essential for developing environments that promote post-traumatic recovery, thus helping those affected by war-related trauma in their journey of growth and resilience.

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No potential conflict of interest was reported by the author(s).

Data availability statement

Given the sensitive nature of the interviews, data can be shared upon request and addressed to the corresponding author.

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