BMC Psychology

RESEARCH Open Access

Posttraumatic growth in mothers of children with special needs: exploring experiences in Türkiye

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Abstract

Background This study aimed to explore in detail the posttraumatic growth (PTG) experiences of mothers of children with special needs (MCWSN). Exploring the perspectives of these mothers is crucial for evaluating family support programs, identifying supportive resources, and developing innovative interventions.

Methods A qualitative phenomenological design was employed to gain a deep understanding of mothers' lived experiences. Participants were selected through purposive sampling, and interviews were recorded using a semi-structured interview guide designed by the researchers to align with the study's purpose. Face-to-face interviews were conducted between November 2023 and January 2024 in two different provinces of Türkiye, where 23 MCWSNs were interviewed.

Results Thematic analysis revealed three main themes: (1) a positive approach to life, (2) communication and social engagement, and (3) personal growth and inner strength. Findings showed that having a child with special needs creates positive relational changes in mothers, leading to personal growth and the discovery of inner strength. It has also contributed to mothers' positive approach to life.

Conclusions These results provide valuable insights for social policymakers, special education teachers, counselors, and families, highlighting the potential integration of PTG into family support programs and psychosocial interventions. Such initiatives could help MCWSNs effectively adapt to societal and workforce challenges.

Keywords Posttraumatic growth, Children with special needs, Family, Motherhood

This study was presented as a conference paper at the 34th National Special Education Congress, held in Ankara, Türkiye, between October 23 and 26, 2024, and published as an abstract in the conference proceedings (pp. 240–243).

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Introduction

The concept of individuals with special needs is used as a holistic concept that refers to children with learning problems, behavioral problems, physical disabilities, emotional disorders, or mentally superior or gifted children [2]. According to the Ministry of National Education's 2024–2025 formal education statistics, 17,956,523 students were enrolled in the formal education system in Türkiye. In the same academic year, 602,729 students benefited from special education services [72]. These figures indicate that a substantial number of families in Türkiye are involved in processes related to children with special needs.

Parents have important roles and responsibilities in supporting the care, education, development, and social participation of children with special needs [8]. These responsibilities may be accompanied by physical fatigue, limited energy for home and work life, negative emotions, cognitive strain, social isolation, and concerns about the child's condition [17]. Children's behavioural and emotional difficulties may increase parental stress in families of children with special educational needs. Social isolation, stigma, and being judged by others may also contribute to this stress [22]. Parenting stress in families of children with disabilities may vary according to disability type and child-related behavioral, sleep, and feeding problems [85]. At the same time, raising a child with special needs may also be associated with positive psychological changes and posttraumatic growth (PTG) among parents [60]. In this respect, focusing on mothers' experiences may contribute to a more detailed understanding of how growth emerges within the challenges of caregiving.

The number of MCWSNs is increasing [103]. The parenting experience changes, and individuals become stressed when they have a child with special needs [53]. To ensure their child's education and well-being, MCWSN must provide continuous attention, which significantly heightens their parenting stress and anxiety [4, 80]. Having a child with special needs has long-term adverse effects on families, causing severe psychological and traumatic effects [26].

Parental stress in the first years of life is critical to parent–child interactions and child development [40]. MCWSN face various social and emotional challenges while fulfilling their caregiving role. This affects health, well-being, parenting quality, and the stress associated with the caregiving role [9]. Many of these families face significant stressors, such as uncertainty about the future, economic problems, and maternal concerns about being able to meet the child's needs. Empirical evidence demonstrates that mothers of children with special needs experience significantly elevated psychological distress and chronic stress levels compared to parents of typically developing children [37, 88, 109]. These heightened stress levels are routinely accompanied by concerns about having little time for spouses, the potentially disruptive impact of the child on siblings, and the social isolation of the child with special needs [63]. Faced with the stress of managing their children's behaviours and needs, these parents can also have highly stressful experiences with increased responsibilities as their family life changes [5] while attending to their children's diverse needs. These parents may experience intense stress in terms of child characteristics such as intensity of care, prolonged care time [30], challenging behaviours, diminished intellectual functioning, physical limitations, deficits in self-care skills, and limited social skills, as well as fears about the social stigma associated with having a child with disabilities [62]. Having a child with special needs involves many challenges, new living arrangements, increased responsibilities, and struggling with various personal, social, and economic difficulties. Parenting stress in families of children with special needs functions as a stressor that weakens family resources and cognitive or evaluative abilities [41]. This complex intersection of personal, social, and cognitive difficulties emphasises the importance of evaluating parental experiences using a comprehensive model that considers these interconnected systems.

Despite the harmful effects of having a child with special needs, findings have shown that this practice is sometimes associated with positive changes [16, 91, 94]. Studies report that MCWSN find positive changes in the face of this traumatic situation, in addition to the difficulties of raising a child with special needs. These positive changes are positively related to parental well-being and are a crucial resource in parents' daily lives regarding stress [60]. This finding is consistent with approaches suggesting that highly stressful events are not always characterized by adverse outcomes [99] and that adversity can have transformative power and various benefits for individuals [23]. Positive changes in the face of challenging events are referred to as PTG [7]. PTG refers to a positive transformation resulting from efforts to cope with and process highly stressful life events [95]. Indeed, a rapidly expanding body of literature underlines that raising a child with special needs significantly catalyzes this growth architecture compared to parents of typically developing children [26]. Empirical evidence demonstrates that a significant proportion of these parents report substantial post-traumatic growth, primarily manifesting as an enhanced appreciation of life and personal strength [60]. Rather than manifesting abruptly, this trajectory functions as a systematic model where sociocultural factors and environmental assets, such as social support networks, activate intentional cognitive processing and coping mechanisms, thereby explaining up to 71% of the variance in parents' post-traumatic growth profiles

[42]. Specifically, Schaefer and Moos's [84] framework highlights that this growth is realised through critical phases and factors, including profound personal transformation in worldview, active mobilization of environmental and social support, and utilization of constructive cognitive behavioral coping strategies. PTG refers to developing new coping skills with increased personal social resources of individuals who experience challenging life events [84]. Moreover, PTG may protect physical and mental health [3, 20, 96].

PTG has been investigated in study groups of individuals with various disabilities, including those with visual impairments [58], hearing impairments [45], autism [20, 33, 106], and broader developmental or physical disabilities [36, 104]. Studies involving parents of individuals with special needs have focused chiefly on stress, coping strategies [46, 101, 109], social support [80], self-compassion [20], and family functioning [79]. Studies have also examined the PTG experiences of MCWSN. Studies have been conducted on specific samples, such as individuals with autism [20, 33], children with disabilities [36], and children with developmental disabilities [104]. Although growth experience has been investigated predominantly in specific sample groups, some studies have addressed the growth levels of parents of individuals with special needs. Çokluk [26] found that MCWSN increased PTG. Laufer and Isman [60] reach a similar conclusion. According to this study, MCWSNs appreciated their lives more, reported that they were personally strengthened, and stated that they developed spiritually.

Although many studies have addressed the negative consequences of stressful situations experienced by MCWSN [22, 30, 39], the number of studies investigating the possibility of parental growth after this experience is limited [26, 60]. However, understanding these individuals' growth experiences may be beneficial in terms of reducing the risk of trauma [33], increasing well-being [106], and increasing effective coping skills [34, 73]. Families' well-being is also related to children's physical, psychological, and social conditions, and MCWSN experiences high levels of parental stress. Identifying the supportive resources associated with this situation may be helpful in terms of interventions to support the well-being of these parents [22].

An increasing number of studies have addressed the PTG experience of individuals facing stressful life events [20, 51]; however, the number of studies addressing the PTG experience of MCWSN is limited, and there is a critical gap. Most studies have been conducted in culturally similar societies [106]. Cultural factors may impact on the PTG experiences of children with special needs. Because cultural and social structures affect how parents handle stressful situations [60], addressing this experience in culturally diverse cultures is essential to understand it better. Understanding the growth probability of parents with an increasing number of children with special needs is essential for guiding preventive interventions. Family-centered and culturally effective care for individuals with special needs should be prioritized. The literature shows that MCWSNs have higher levels of perceived stress [5], are more likely to experience depression [25] and anxiety [86], as well as sleep problems [68] and poorer physical health [81]. However, the findings showing that these individuals can experience growth are promising in terms of preventive and protective mental health studies [90]. For this purpose, we explored the PTG experiences of MCWSN by adopting the Life Crises and Personal Growth Model developed by Schaefer and Moos [84]. According to this model, challenging life experiences can impact individuals in several ways, contributing to the development of more effective coping skills and enhancing personal and social resources. Specifically, this model provides an analytical framework for our study, operationalizing growth across three distinct domains: personal systems, environmental resources, and adaptive coping responses. Accordingly, this study aims to understand the PTG experiences of MCWSN in depth. To address this, the present study adopted the Life Crises and Personal Growth Model developed by Schaefer and Moos [84] as a conceptual framework with which to explore the multi-dimensional growth experiences of MCWSN. According to this theoretical framework, challenging life experiences have the capacity to exert a dynamic influence on individuals, leading to the development of alternative coping mechanisms and the enhancement of personal and social resources. Adopting a qualitative, phenomenological approach allows for in-depth investigation of these three theoretically driven areas of change, enabling the capture of authentic, lived experiences of MCWSN regarding their personal systems, environmental/social resources, and coping processes following this traumatic experience.

The aim of the present study

The present study aims to explore how MCWSN perceive, experience, and navigate PTG within their daily lives. In alignment with the phenomenological research design and the conceptual dimensions proposed by Schaefer and Moos [84], this study seeks to address the following exploratory research questions:

> RQ1. How do MCWSN describe the internal transformations and shifts in life philosophy within their personal systems following the experience of parenting a child with special needs?
> RQ2. What are the experiences of MCWSN regarding the role of environmental and social resources in facilitating their adaptation and growth?

RQ3. How do MCWSN navigate and employ adaptive coping responses to transform caregiving adversity into positive personal changes?

Methods

Study design

Qualitative research facilitates a realistic and holistic comprehension of phenomena and human perceptions within their natural settings. Through methods such as observation, interviewing, and document analysis, researchers can elicit comprehensive insights into how participants experience and conceptualize their social worlds [27, 29]. Particularly within special education, qualitative inquiries offer profound understandings of underlying causal mechanisms and nuances surrounding specific educational contexts [61]. Aligning with these methodological affordances, this study adopted a phenomenological approach grounded in an interpretivist epistemological stance to explore the post-traumatic growth experiences of MCWSN. Rather than merely summarizing surface-level accounts, phenomenological research seeks to systematically articulate the essence of a phenomenon by exploring the lived experiences of individuals through semi-structured dialogue [77]. To maintain methodological rigor throughout this interpretive process, Braun and Clarke's [14, 15] thematic analysis was utilized. This flexible analytic framework leverages the researcher's active role in data analysis, enabling the organic derivation of both manifest and latent meaning patterns directly from the participants' rich narrative data.

Participants

The study participants were intentionally selected through criterion sampling, which is a specific type of purposive sampling commonly employed in qualitative research to identify information-rich contexts relevant to the phenomenon under investigation [74]. Under this approach, participants were systematically selected from institutions serving individuals with special needs, based on the assumption that their direct, first-hand experience provides both analytical depth and context-rich breadth regarding the phenomenon.

To ensure sample homogeneity and methodological alignment, specific inclusion criteria were established: (a) being a biological mother and the primary caregiver of a child diagnosed with a special educational need or disability, (b) having a child who received their official diagnosis at least one year before the study to allow for a realistic timeframe for potential post-traumatic growth, and (c) volunteering to share their experiences in depth. The decision to focus exclusively on mothers is rooted in the well-documented reality in the relevant cultural context that mothers predominantly bear the primary, continuous caregiving responsibilities and are more directly exposed to the daily systemic, emotional, and practical challenges of raising a child with special needs. Consequently, they serve as primary and information-rich sources for exploring deeply felt post-traumatic growth experiences. Potential participants who did not meet all three criteria or whose children did not have an official medical/educational diagnosis were excluded; however, no potential participants were excluded on these grounds during the active recruitment phase.

All participants were of Turkish nationality, and 23 female individuals serving as MCWSNs residing in two distinct cities within Türkiye were included. The recruitment process was guided by the principle of data saturation, a methodological standard in qualitative inquiry [83]. This principle states that data collection should be continued until no new insights, themes, or conceptual categories emerge from the interviews. In this study, conceptual saturation was actively monitored during the analytical process, and it was observed that the data became repetitive and reached full saturation by the 20th to 21st interview. To ensure the comprehensiveness of the findings and to confirm that no latent themes had been overlooked, two additional interviews were conducted, thus bringing the total sample size to 23 participants.

Regarding recruitment clarity and voluntary participation, a total of 25 mothers were approached (declination rate: 8%). No financial incentives or compensatory rewards were offered to the participants, ensuring that participation was entirely voluntary and driven by a willingness to contribute to special education literature. The average age of participants was 36.2 years. Demographic details of the participants are presented in Table 1.

Data collection instrument

The researchers developed the interview form utilized in this study to align with its objectives. Initially, they created draft interview questions based on a systematic literature review. To ensure the suitability, comprehensibility, and measurability of the draft semi-structured interview form, they consulted with three field experts, a measurement and evaluation specialist, and a language expert, gathering valuable feedback. The interview form was subsequently refined under the recommendations of the experts (see Supplementary File 1). To operationalize our theoretical framework [84], the final interview guide comprised targeted, open-ended questions designed to capture different dimensions of growth. Such as exploring environmental resources through Question 3 (*How would you describe your relationship with your special needs child?*), track structural overhauls within the personal system through Question 6 (*In what ways did your self-perception shift following the challenges you encountered?*), and investigate the evolution of adaptive

Table 1 Participants' demographic information

	f
Gender	
Female	23
Marital Status	
Married	21
Single	2
Perceived Household income status	
High	3
Medium	16
Low	4
Number of Children in the Family	
1	7
2	12
3	14
Category of Disability	
Multiple disabilities	3
Intellectual disabilities	12
Autism	2
Down syndrome	4
Learning disabilities	2
Highest Level of Education Attained	
Primary Education	5
Lower Secondary Education	4
Upper Secondary Education	11
Higher Education	3

strategies through Question 10 (*How did your coping methods change in response to the difficulties you experienced?*). Following the finalization of the interview instrument, preliminary pilot interviews were conducted with three parents. This initial phase aimed to gather insights and refine the methodology, thereby enhancing the overall effectiveness of subsequent data collection efforts. The pilot interviews, which lasted an average of 35 min, resulted in refinements regarding wording and length, concluding the preparation of the interview questions. The interview guide developed by the researchers and our expert collaborators was well-suited for the study.

Data collection process

Upon receiving ethical approval from the Research Ethics Committee of Recep Tayyip Erdogan University (Decision No: 2023,3/263, October 27, 2023), data collection was systematically executed in accordance with institutional ethical standards and the Declaration of Helsinki. The face-to-face, semi-structured, and in-depth interviews were conducted to fully capture the rich, authentic lived experiences of the participants. All interview sessions were facilitated solely by the authors, who are trained in qualitative interviewing techniques, and no external assistants were involved to ensure researcher consistency and maintain a safe, trusting atmosphere. To ensure privacy, confidentiality, and psychological comfort, all sessions took place in quiet, private rooms inside the serving institutions.

Before the interviews, participants were thoroughly briefed about the nature of the study. Each participant provided informed consent. To fully safeguard participant confidentiality and minimize identifiability, no identifying information (such as names or surnames) was collected on the demographic information forms. All demographic and transcript data were thoroughly anonymised and linked exclusively to alphanumeric participant identification codes (e.g., P1, P2). The interviews ranged in duration from 27 to 54 min, with an average length of 37 min. To avoid the loss of data and to ensure the preservation of narrative accuracy, it was imperative that all interviews were audio-recorded with the participants' permission. Concurrently, the researchers utilised systematic notetaking, recording field notes during and immediately after the interviews to document critical non-verbal cues and contextual dynamics. Following the completion of the field work, the recorded audio data were transcribed verbatim into Turkish by the researchers.

Data analysis

The audio-recorded interviews were transcribed, and another researcher verified the accuracy of the transcriptions. Code names were assigned to ensure the confidentiality of participants. Inductive thematic analysis was guided by the six-phase framework developed by Braun and Clarke [14, 15] to identify and analyze themes. To execute this framework systematically, the MAXQDA 2020 software was used to manage, organize, and analyze the data, enhancing the quality of the analysis and minimizing data loss. Crucially, the entire coding and theme development process was conducted in the original language of the interviews (Turkish) to fully preserve semantic nuances and cultural contexts. The analytical process was initiated with data familiarisation through multiple readings, followed by independent line-by-line coding by both researchers. In our analysis, numerous coding and theme refinement sessions were organised by the researchers collaboratively. After checking the consistency of the coding system and codes, the categories were grouped into main themes. This iterative process is important to ensure that the themes identified accurately represent the life experiences of the participants [12]. Collaborative coding practices not only enhance the richness of the analysis but also mitigate individual biases, thereby increasing the trustworthiness of the findings [93]. Themes and codes were independently generated by both researchers and subsequently compared. In qualitative research, reliability is calculated using the formula (reliability = agreement/agreement + disagreement), where intra- and/or inter-coder agreement is expected to

be within the 85% to 90% range, depending on the size and range of the coding scheme [71]. The reliability of the study was determined to be 94% based on the number of agreements and disagreements in the comparisons. In cases where disagreements arose regarding the coding of a theme or subtheme, the input of a qualitative research expert, distinct from the researcher, was sought. The revised themes and subthemes were examined, discussed, and a final consensus was reached upon mutually agreeing on the definitive theme names and definitions. Following the completion of the qualitative analysis in Turkish, the selected participant quotes and findings were translated into English solely for publication and reporting purposes. To ensure linguistic equivalence and conceptual accuracy in the final manuscript, a forward-and-backward translation method was applied [28]. This process involved translating the representative data from Turkish into English, which was then backtranslated into Turkish by an independent translator to resolve any linguistic inconsistencies.

Researcher positionality and reflexivity

In qualitative inquiry, it is vital to acknowledge the positionality of the researcher, given the inevitable influence of the researcher's academic background and professional identity on data interpretation and participant interactions [48]. In order to ensure methodological transparency and enhance interpretive rigor, this study adopted an interdisciplinary collaborative approach, adhering to the Consolidated Criteria for Reporting Qualitative Research (COREQ) guidelines [97]. The research team comprised individuals with distinct yet complementary academic backgrounds, which directly informed the study's framework. The lead researcher holds a PhD in Guidance and Psychological Counselling and serves as a faculty member in this field. The counselling background of the facilitator provided a strong therapeutic lens and empathetic communication skills, which facilitated deep rapport and created a safe space for participants to express sensitive post-traumatic growth experiences. The second researcher is a senior research assistant and doctoral candidate in Special Education, with extensive academic experience and years of direct professional engagement with individuals with special needs and their families. This background provided an insider perspective on the systemic, educational, and familial challenges specific to the special education context. The integration of psychological counselling and special education perspectives enabled a more comprehensive and multi-dimensional interpretation of the data. In order to ensure objectivity, both researchers had no prior personal or professional relationships with the participants, thus ensuring an impartial stance during the recruitment process whilst maintaining an empathetic approach during data collection.

To ensure a balanced integration of researchers' professional preconceptions and participants' authentic lived experiences, continuous reflexivity was employed [10]. To establish trustworthiness and confirmability, a multi-layered reflexivity strategy was implemented. The researchers independently set aside the transcribed data and returned two weeks later to re-examine the consistency of the initial codes and interpretations. The thematic structure and emerging narrative were then cross-examined collaboratively by both researchers, with the aim of resolving discrepancies by leveraging their respective fields of expertise. Furthermore, the framework was subjected to independent review by external experts in counselling, with a view to identifying and challenging potential biases. This process, combining interdisciplinary perspectives and systematic self-reflection, ensured the credibility of the analytical process.

Results

The qualitative findings of this study unveil how MCWSN experience and develop PTG. In accordance with the study's central objective and the dimensions of Schaefer and Moos's [84] Life Crises and Personal Growth Model, the empirical data yielded themes that illustrate the transformation of maternal personal systems, the activation of environmental/social resources, and the development of adaptive coping responses. The interviews with the participants identified three overarching themes and seven subthemes regarding the PTG experiences of MCWSN (Fig. 1). The findings related to the themes and subthemes are explained below by exemplifying statements containing the participants' identities.

Theme 1: positive approach to life

In direct response to RQ1 ("*How do the personal systems and core worldviews of MCWSN change during the parenting trajectory?*"), and in accordance with the personal system dimension of Schaefer and Moos's [84] model, participants stated that having a child with special needs had a profoundly positive impact on their life perspective, core values, and internal philosophy. Rather than experiencing permanent psychological depletion after having a child with special needs, they changed their life philosophy and priorities, accepted the problematic situations they experienced by adopting a fatalistic approach, and expressed their gratitude.

Subtheme 1.1. change of life philosophy and priorities

Most participants experienced a radical recalibration of what they deemed essential, shifting their value systems from conventional social anxieties to the appreciation of fundamental existential milestones. Having a child with

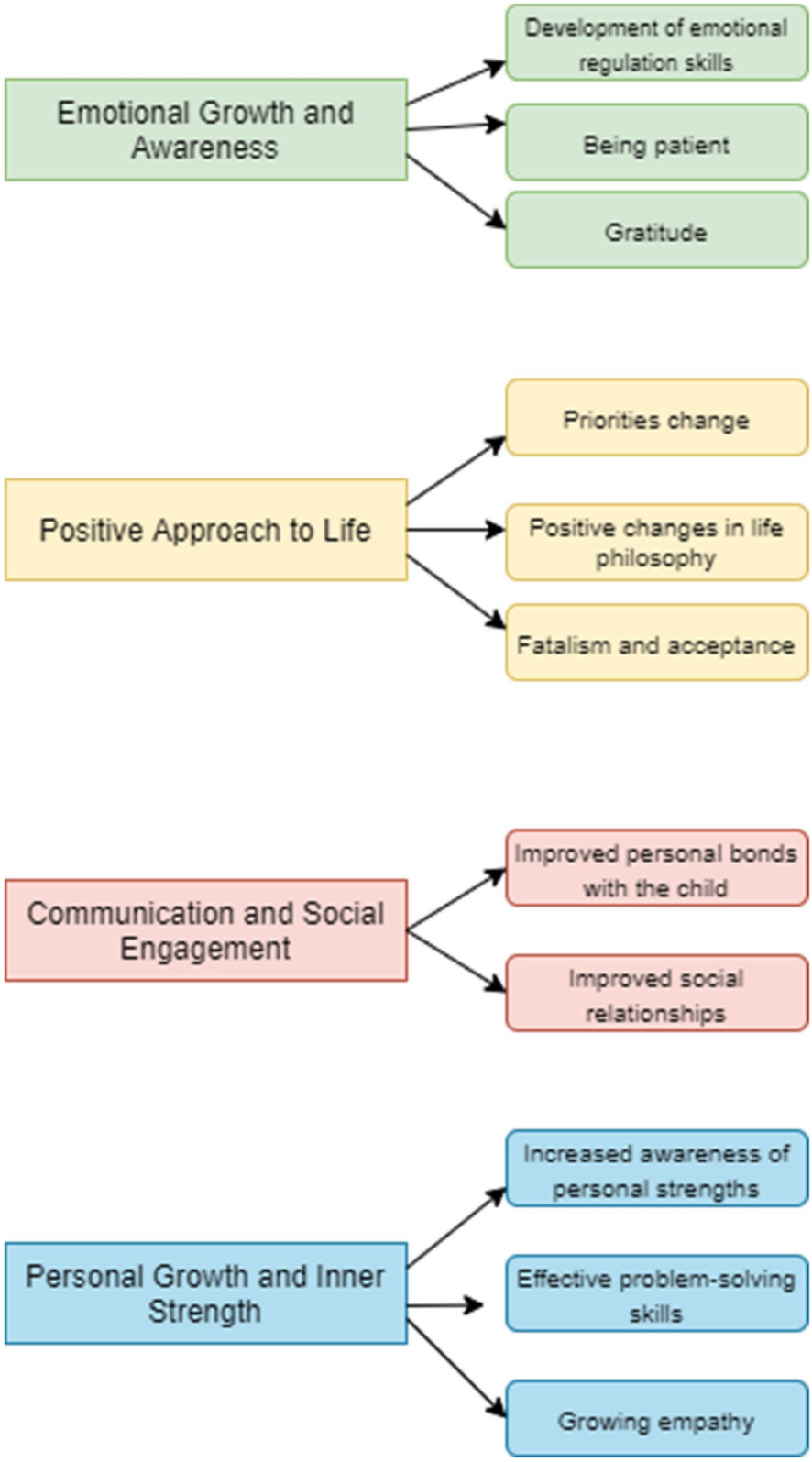


Fig. 1 Themes and subthemes

special needs detached these mothers from the standardized worries of typical parenting, redirecting their psychological energy toward basic developmental necessities such as health and foundational self-care. This shift highlights a deeper cognitive restructuring where everyday ordinary events are transformed into significant sources of meaning.

> *"After my child, I started to be happy about small things. I do not want anything if my child is healthy. I want him to talk to his peers. It is sufficient for me to express himself. (P2)"*

This positive reconfiguration of life philosophy allowed participants to internalize life's intrinsic values, finding psychological equilibrium in micro-successes that typically developing contexts often overlook. This situation points to a coping mechanism that maximizes life satisfaction by minimizing external expectations.

> *"Therefore, I can say I realized the meaning of life. While a normal person complained about simple things, I realized what luxury it was when I saw them. This means there are other priorities, and it is possible to be happy with simple things. (P3)"*
> *"There are challenges, but I am happy and proud of small things. (P18)"*

Subtheme 1.2. fatalism and acceptance

While participants initially encountered severe emotional friction in assimilating their child's diagnosis, they progressively reframed this reality through spiritual fatalism. Reconceptualizing their situation as an unalterable, divine destiny served as a powerful cognitive coping strategy. By interpreting the diagnosis as a purposeful decision of God, mothers successfully alleviated the agonizing search for "causal blame," converting a potentially paralyzing crisis into a structured, spiritually supported path of endurance.

> *"I have a special child, and I am a mother of a special child. Therefore, it is perfect to say that this is a gift from Allah, to accept it, to be patient, and to be grateful. In addition, we look at the other side. It is great wisdom to see that the window has two wings, not one side. This was a very great gift from Allah. (P16)"*

The belief that having a child with special needs results from an unchangeable and heavenly decision supported the participants in accepting the situation and made mothers become proactive agents in managing daily educational and behavioral challenges.

> *"Yes, I say there is nothing I can do. I say that man did not give this; God gave it. I look at this differently. I accept it this way, and God gave it to me. I try to deal with this in the best way. (P5)"*

Subtheme 1.3. gratitude

Participants frequently expressed gratitude for the many things they had in their lives because of having a child with special needs, the minor improvements they observed in their children, and other life events. Rather than focusing on systemic deficits, mothers actively engaged in downward social comparison, identifying those in more difficult situations, to cultivate a sense of relative privilege and emotional relief. This approach enabled participants to feel gratitude by exploring the positive aspects of their own experiences within a larger community.

> *"I mean, there are people worse off than me. I am grateful for this situation. (P17)"*

Theme 2: personal growth and inner strength

Directly addressing RQ2 ("*What adaptive coping responses and cognitive appraisals do mothers develop to navigate caregiving challenges?*"), and mapping directly onto the adaptive coping responses dimension of Schaefer and Moos's [84] model, participants reported that the continuous caregiving role catalyzed the development of sophisticated behavioral and cognitive coping strategies. Participants reported that having a child with special needs involved several positive personal transformations, including becoming aware of their strengths. The theme covering these changes related to increased awareness of personal strengths emphasizes effective problem-solving skills and emotion regulation. This structural transformation was driven by an ongoing demand for complex problem-solving and systematic emotion regulation, effectively turning chronic stress into a catalyst for self-actualization.

Subtheme 2.1. increased awareness of personal strengths

The prolonged adversity of parenting a child with special needs acted as a crucible, forcing mothers to confront and dismantle their pre-existing self-concepts of fragility. This ongoing struggle fostered a profound psychological resilience, radically enhancing their self-efficacy and systemic confidence.

> *"I think my child has made me mature a lot. My perspective on life has changed. I have gained self-confidence. I was not a confident person; I was afraid of everything. Now I am very confident. (P19)"*
> *"There were times when I felt more robust and more resilient. (P13)"*

Subtheme 2.2. effective problem-solving skills

To cope with the emotional baggage of having a child with special needs, the participants stated that they developed cognitive, emotional, and behavioral skills to solve problems more effectively over time while facing the problems they experienced in the stages related to the child's education and socialization. The most important thing was taking a proactive approach and conducting various studies on the subject. However, this proactive planning reveals an underlying, chronic existential tension: the pervasive fear of time lost and developmental delays, which compels mothers to constantly anticipate future challenges.

> *"I did not know how to take care of my child. I did not know how to bring him in what direction. In time, one learns. With special children, there is a fear of being late for something. Since I did not know what to do at what time, I would do research in advance; I was already following the process. I researched everything from the very beginning. I was always researching what awaited me. (P22)"*

An intense subtext within this problem-solving capacity is the parental anxiety surrounding maternal mortality. Mothers stated that they made short- and long-term plans for their children's future, education, and social and emotional development.

> *"I am trying to plan something for the future; I have been gone for years. What can I leave for my child? How can he/she be taken care of while I am gone? I think about these things all the time. (P1)"*

They also stated that they learned from their experiences in terms of their coping competencies in this process. They also reported that they learned to continue to strive without giving up in the face of ineffective results in solving the problems they encountered during the challenging experience. This internalised competence prevented learned helplessness and motivated mothers to persevere.

> *"After that, I struggled, did not give up, worked hard, and now my child is in a good school and environment. He is less backward than his peers are. There has been progress in his development. We have made much progress in this situation. (P12)"*

Subtheme 2.3. development of emotion regulation skills

Mothers evidenced a sophisticated evolution in emotional processing, transforming their initial raw affective reactivity into structured emotional management. Reported that they learned to cope more effectively with the negative emotions caused by the challenging life events they experienced and that they could manage their emotional complexity better. They stated that they were able to cope with the intense emotions caused by having a child with special needs more effectively over time and that they started to experience fewer adverse effects from these emotions. This narrative illustrates a clear transition from the acute traumatic shock of the initial diagnosis to a state of chronic habituation, where the intensity of anxiety is muted through continuous exposure and cognitive adaptation.

> *"I can say that our stress decreased. I am worried and anxious about my child's condition. I worried about whether he would be like a normal child and what would happen in the future. Of course, we are more restricted to children, so sometimes what we go through stresses us. However, we got accustomed to it compared to the first time. I do not feel as anxious or worried as I used to. (P9)"*

The data captured a vital internal tension: initial phases of maternal grief often manifested as profound anger and frustration regarding societal barriers and caregiving demands. Over time, they learned to be more in control and often used the term patient to describe themselves. This experience enabled the participants to become patient, which refers to a consistent effort to internally digest the child's situation and cope with the challenging life events that this situation brings.

> *"After my child, I became a more patient person. (P14)"*
> *"I was always patient, thankful, and tried to stand upright. (P10)"*

Theme 3: communication and social engagement

In direct alignment with RQ3 ("*How do mothers utilize and restructure their environmental and social resources to foster psychological growth?*") and reflecting the environmental and social resources dimension of Schaefer and Moos's [84] framework, the journey of raising a child with special needs extensively altered the relational ecology of the participants. These socio-relational shifts illustrate how mothers actively mobilized external resources, special education networks, and micro-communities as foundational platforms to cultivate post-traumatic growth. These socio-relational shifts have been observed to involve both a structural narrowing of general social circles and a simultaneous deepening of specific, empathetic human attachments.

Subtheme 3.1. developing bonds with the child and the environment

Mothers reported that having a child with special needs resulted in closer relationships with children, in addition to the burden of parenting responsibilities. They also emphasized the more delicate and more profound nature of this relationship. This relationship evolved past traditional parenting into an acute, deeply intuitive emotional attachment.

> *"We are very close. We are always together; he is very fond of Mom. He is next to me on my lap. Our communication is excellent. (P7)"*

Participants stated that having a child with special needs limited some of their relationships but led to significant improvements in some of their relationships. The social lives of these mothers reflect a profound dualism: while they experienced isolation and withdrawal from typical social spheres due to stigma or lack of understanding, they simultaneously experienced rapid social integration within specialized micro-communities. They formed deep, authentic alliances with peers facing similar challenges and professional stakeholders (e.g., educators, therapists), transforming shared adversity into a source of collective empowerment.

> *"I am more open to their help. We communicate better with the teachers and parents we joined the group. (P11)"*
> *"I understand some people better because I am involved. I understand families with special children better. I understand better what they feel and what they go through. I understand the stages they go through. I know better. (P23)"*

Mothers also reported positive improvements in their social lives because of the social contacts established to meet the needs of children with special needs. The operational tasks of navigating special education act as a catalyst for forced socialization, transforming previously introverted mothers into highly communicative, assertive, and socially visible advocates.

> *"I have become more communicative. You know, more affectionate? More tolerant? (P15)"*
> *"During the school period, I socialized with my son. (P21)"*

Subtheme 3.2. growing empathy

The experiences shared by mothers with children with special needs highlight this challenging journey's profound impact on their emotional and social dynamics. These individuals expressed that raising a child with special needs led to notable transformations in their interpersonal relationships. The transformative nature of this lived experience profoundly heightened the mothers' interpersonal sensitivity and socio-emotional consciousness. Participants noted that their own suffering dissolved previous social prejudices, replacing superficial judgments with an inclusive, deeply compassionate ethos. Specifically, they conveyed that this experience made them more understanding of others and heightened their sensitivity compared to their preexperience. The insights provided by these participants underscore the intricate emotional and social shifts that can accompany the journey of parenting a child with special needs, emphasizing the potential for personal growth and increased empathy. They reported that they were more compassionate and had an increased tendency to show compassion in human relationships. Beyond all, the participants reported that they were better able to empathize in communication and began to take a more inclusive and humane approach when addressing the mechanisms underlying the behavior of their social environment. However, this expansion of empathy is anchored in a painful tension: a deep-seated resentment toward the perceived emotional illiteracy of the typically developing society. The narrative reveals that true understanding is viewed as an exclusive club—one that can only be entered through the shared visceral experience of trauma, highlighting an unbridgeable empathetic gap between special needs families and the broader community.

> *"If I saw someone like this, I might have found it strange, but now when I see someone like this, I think it could happen to me, it could happen tomorrow, and I am more compassionate and positive. (P6)"*
> *"Your perspective on your environment becomes much different. Let me put it this way: I had friends with children with special needs in my circle before. For example, there were many things I wish I had not done to them. We understand them, but no one understands anyone; that is what I realized at first. To understand the other person, you truly need to experience it. For example, this is a massive wound for me. (P12)"*

In summary, the empirical data have been mapped onto Schaefer and Moos's [84] model. This has demonstrated that the challenges of having a child with special needs function simultaneously as a severe stressor and a profound opportunity for transformation. The reciprocal interaction between changes in the personal system (Theme 1), the active engagement of adaptive coping responses (Theme 2), and the strategic mobilisation of environmental resources (Theme 3) forms a coherent

pathway for maternal development. A positive approach to life has been shown to support personal development, allowing individuals to identify their strengths and develop more effective problem-solving and emotional regulation skills. This personal growth is concomitant with a process that strengthens social relationships and increases empathy. It has been demonstrated that as individuals come to terms with challenging experiences, they are likely to establish more profound connections with those around them. This, in turn, has been shown to result in an increased level of social participation. It is argued that challenges can serve to enhance an individual's internal fortitude, thereby engendering beneficial outcomes for both the individual and their social milieu. In summary, the findings illustrate that mothers of children with special needs experience post-traumatic growth not despite their suffering, but precisely through the active, reflexive negotiation of it.

Discussion

This study explored the PTG experiences of mothers of MCWSN, elucidating the constructive transformations across personal, social, and coping domains. While the negative impact of caregiving has been extensively documented in the literature [31, 55, 67, 76, 80], this study demonstrates that navigating chronic caregiving adversity can simultaneously trigger significant personal development and positive psychological shifts [98]. The present findings demonstrate that life crises accelerate growth through the dynamic interaction of an individual's personal system, environmental resources, and adaptive coping responses. This conceptual alignment with Schaefer and Moos' [84] Life Crises and Growth Model is therefore substantiated. This model posits that challenging life experiences contribute to the enhancement of personal and social resources and the development of new coping skills.

Personal system

According to Schaefer and Moos [84], the personal system encompasses an individual's intrinsic resources, such as socio-demographic characteristics, self-efficacy, resilience levels, health, motivation, and previous crisis experiences. The interaction of this system with caregiving adversity shapes the positive changes that manifest as structural reconfigurations in PTG. In this study, the first profound manifestation of this personal system overhaul was a radical shift in life philosophy and priorities.

Theoretical underpinnings of PTG establish that growth typically involves a major reevaluation of life goals and meaning [50, 52]. Traumatic experiences force individuals to reorder their priorities, enabling them to reframe chronic stress as a vehicle for self-development and to find joy in simpler, foundational milestones [65, 92]. The MCWSN in our study exhibited a parallel transformation; despite the painful nature of their caregiving journey, they appreciated existential aspects they had previously overlooked [44, 69], validating the cross-cultural universality of philosophical PTG within the personal system [13, 102]. The lived experiences of these mothers serve to enrich the existing literature on the subject by demonstrating how philosophical growth operates within the unique socio-cultural framework of special needs parenting. In this context, ordinary developmental milestones are transformed into extraordinary indicators of meaning.

Furthermore, the adversity functioned as a psychological crucible that enriched the mothers' personal resources, leading to an enhanced awareness of inner strengths in coping and cognitive appraisal. As structural components of the personal system, self-confidence and resilience are often uncovered and further developed through the resolution of life crises [84]. Overcoming trauma allows individuals to dismantle former perceptions of vulnerability and cultivate an enhanced sense of personal empowerment [43, 82]. Similarly, the findings from this study indicate that the traumatic experience of having a child with special needs contributes to parents perceiving themselves as more personally empowered. They discover strengths they were previously unaware of and further develop the strengths they already possess. A finding that aligns with prior evidence that robust parental beliefs foster high perceived personal power [64], while resonating with broader literature indicating that overcoming life crises catalyzes PTG by enhancing both personal empowerment and positive attitudes toward others [57, 70, 91]. It is important to note that the present findings do not consider this empowerment as a static positive outcome, but rather as an ongoing negotiation.

Environmental resources

Schaefer and Moos [84] highlight the environmental system, which underscores the role of interpersonal relationships with family members, work, and social circles, social support, financial status, and community living conditions. The model states that successful adaptation to life crises results in enhanced social resources. Our findings indicate that the crisis of a child's disability fundamentally restructured the mothers' environmental system, increasing their social resources and fostering the development of their social relationships [84, 95]. Perceived social support remains a crucial variable in explaining PTG [105], acting as a protective and effective coping mechanism in the face of traumatic experiences [21].

Upon exploring the PTG experiences of MCWSN, it was observed that parents reported improvements in communication and social engagement. This growth in

the social domain manifested itself in developing bonds with the child and the environment. However, a close examination of the data reveals a deep socio-relational dualism. The caregiving experience had two main effects. Firstly, it led to the limitation or severance of conventional social relationships due to perceived social stigma. Secondly, it forced a rapid integration within specialised micro-communities. The environmental system shifted as mothers developed closer, deeper dyadic bonds with their children and established active communication within specialized micro-communities. While the experience limited some conventional relationships, it led to significant improvements in communication with families experiencing similar challenges and various professional actors (e.g., teachers, therapists). Furthermore, experiencing growth can contribute to a more sophisticated approach to social relationships [66] and facilitate more open communication with others [19]. This aligns with prior evidence indicating that parents who effectively cope with their children's illnesses have a greater likelihood of experiencing positive changes in their social relationships [64]. Ultimately, the current findings corroborate established frameworks of post-traumatic growth, demonstrating that as individuals adapt to traumatic experiences, functional enhancements in communication and social systems often occur in tandem with a fundamental shifting of personal priorities and worldviews.

In addition to these structural shifts in social interaction, the parental growth experiences extended into deeper socio-emotional dimensions, characterized by a heightened capacity for compassion and empathy alongside an enriched understanding of their ecological environment. This intrapsychic development echoes broader empirical literature on post-traumatic growth, which indicates that navigating severe life crises can actively cultivate empathy and a more profound sensitivity toward the struggles of others [110, 111]. Indeed, growth operates through a fundamentally paradoxical mechanism: while trauma exposes vulnerability, it simultaneously fosters a closer, more meaningful connection with the human experience and prompts a thorough reorganization of personal priorities [47]. Crucially, the lived experiences of our participants reveal that this expanded empathy is intimately anchored in a painful awareness of societal shortcomings. The mothers' growth manifests as a compassionate worldview that directly responds to, and often compensates for, the perceived emotional illiteracy and exclusionary attitudes of the broader, typically developing society [74].

Adaptive coping responses

Schaefer and Moos [84] emphasize that the trajectory from crisis to growth is heavily mediated by how individuals evaluate the trauma and execute their cognitive appraisal and coping responses. Cognitive appraisal and coping strategies encompass both active coping responses (analyzing the challenging experience, positive reinterpretation, and demonstrating problem-solving skills) and avoidant coping responses. In our study exhibited a fatalistic approach when evaluating their traumatic experiences, and this approach contributed to their growth by helping them accept the consequences of the traumatic event. Spiritual fatalism emerged not as passive resignation or avoidant coping, but as a highly sophisticated, active cognitive appraisal mechanism. Following trauma, individuals frequently explore religious or philosophical frameworks to weave meaning into their experiences [69]. Within the Muslim context, fatalism entails a dual responsibility: executing one's utmost effort (behavioral action) while entrusting the outcome to divine providence (cognitive surrender), emphasizing that individuals should do their best and accept their fate as the creator's providence [54].

While traditional literature often links fatalism to negative mental health outcomes [107], our study adds a crucial nuance to the literature by demonstrating that within the lived reality of these mothers, fatalism can be linked to PTG when it operates as an active fatalism [6]. This mechanism relies on the active behavioral and attentional regulation of environmental stimuli [89]. By embedding their trauma within a divine framework, mothers neutralized self-blame, which served as a preventive factor against mental health problems and supported their progression toward active problem-solving approaches.

Similarly, gratitude operated as an active emotional coping resource within the domain of coping and cognitive reappraisal. High levels of gratitude protect individuals from the pain and adverse effects of traumatic experiences [78], allowing positive emotions to accompany high-stress situations alongside negative affects like anger, sadness, and anxiety [38]. Our results show that MCWSN reported a greater manifestation of gratitude because of the challenging and traumatic experiences they endured. Rather than claiming a simplistic linear cause-and-effect relationship, our qualitative data illustrate a deeply intertwined co-existence: as mothers consciously look for minor developmental improvements to practice gratitude, this cognitive habit fuels their post-traumatic growth, which in turn dynamically reframes their capacity to feel grateful for foundational life aspects [35].

Upon analyzing the growth experiences of parents with children with special needs, it was observed that they expressed an improved ability to solve problems more effectively than before. This adaptive cognitive appraisal manifested behaviorally through the development of effective problem-solving and emotion regulation skills,

which represent core active coping responses. Orienting toward problem-solving and taking an active stance toward coping with difficulties is a vital component and predictor of growth [54, 59, 87]. The mothers in our study developed cognitive, emotional, and behavioral skills to solve problems more effectively over time—such as conducting advanced research and making short- and long-term plans for their children's education and future care—which aligns with growth theories emphasizing coping skills [84, 95] and empirical studies linking problem-solving to reasonable psychological adjustment [18, 75, 91]. Consequently, these findings collectively underscore the established literature, reinforcing the conclusion that effective problem-solving serves as a vital and transformative component of post-traumatic growth.

Finally, our exploration of the PTG experiences of MCWSN found that significant emotional developments emerged through the refinement of emotion regulation skills. While the structural mechanics of emotions have not been extensively mapped out in traditional growth theories [52, 84, 95], mental health professionals emphasize that emotional development is a crucial aspect of the journey from trauma to growth [49]. While being a parent of a child with special needs is associated with high depression and anxiety [80], an increase in emotion regulation skills diminishes affective distress and unlocks growth experiences [100], highlighting its significance during and after the growth process [11]. In the words of the participants, this emotional growth was primarily captured through the concept of "patience," which they described not as passive submission, but as an active, daily effort to internally digest emotional complexity and maintain composure in the face of ongoing behavioral and social friction [1, 32, 102].

Taken together, these findings offer a comprehensive synthesis that corroborates the structural architecture of Schaefer and Moos' [84] framework within a unique caregiving context. The parallel growth observed across the participants' personal, environmental, and coping systems underscores that chronic adversity functions not merely as a source of distress but as a conceptual catalyst for systemic reconfiguration. Specifically, the combination of internal strengths (resilience and life philosophy), active practical efforts (problem-solving and emotion regulation), and social resources (support networks and adaptive bonds) underscores that PTG is an integrated and multi-dimensional process. The present study finds that, in essence, the interpretations derived from this analysis are firmly anchored in the lived realities of the subjects. This serves to confirm that the process of Postpartum Transitional Gap (PTG) is an integrated, nonlinear, and multi-dimensional phenomenon. Ultimately, this study confirms that even within the challenging journey of raising a child with special needs, mothers can effectively use their resources to transform severe life crises into lasting personal and social growth.

Limitations and suggestions

While this study contributes significantly to gaining an in-depth perspective on parents' experiences of PTG, it is essential to acknowledge certain limitations when interpreting the findings. The study focused exclusively on mothers as primary caregivers. Research indicates that women are more likely to experience PTG than men [24]. Although mothers represent the primary caregiving core in this context, the exclusion of fathers limits the transferability of the findings regarding paternal posttraumatic growth trajectories. While the findings offer valuable insights into the emotional changes and developmental processes experienced by parents after having a child with special needs, it's uncertain how these findings relate to male participants. By not considering gender differences, the findings may not be generalizable to all gender groups, which limits their overall implications. Since the data were collected in Turkish, there is potential for misinterpretation of some content during translation, adding another layer of limitation. Language and culture significantly influence how individuals express experiences, particularly in complex analyses like PTG. Translation-induced shifts in meaning can impact accuracy and validity. In a cultural context, posttraumatic growth reactions specific to Turkish culture may not carry the same meaning when translated, limiting interpretation in different cultural contexts. Furthermore, the lack of diversity among the participants in terms of specific demographic characteristics limits the generalizability of the findings. This limitation may overlook the impact on socially or culturally marginalized groups. Families with children with special needs who have lower incomes or fewer resources may interpret their traumatic experiences differently. Each limitation somewhat impacts the accuracy, generalizability, and validity of the findings. Therefore, it is important to consider these limitations when interpreting the study results.

Based on the study's findings and limitations, several suggestions can be proposed for researchers and practitioners. Firstly, given that having a child with special needs may not always lead to adverse mental health outcomes, there is value in focusing on preventive and protective intervention practices within trauma counseling. Consequently, mechanisms can be developed to facilitate access to individual counseling services, encouraging the growth of individuals with children with special needs. Through such mechanisms, therapeutic conditions promoting positive changes in the process of coping with traumatic experiences can contribute to community mental health positively and aid in the adaptation of individuals with special needs and their parents to society.

The findings underscore the significance of social relationships as an integral part of the growth experience. Considering these considerations, it is proposed that fostering social support groups to enhance communication among children with special needs and their parents who share similar experiences may have positive consequences for mitigating the effects of trauma. Future research could address PTG in individuals with special needs and comprehensively evaluate its impact on each family member. Additionally, factors contributing to growth in individuals with special needs can be identified through quantitative and mixed-design research methodologies. Finally, only female parents were included in this study. It should be considered that gender is an essential factor in mental health outcomes that are potentially influenced by cultural factors such as PTG. It would be useful for researchers to design comprehensive studies addressing the PTG experience for male and female parents to address how PTG differs regarding parents' gender. Future research should explore potential differences in PTG between mothers and fathers of children with special needs.

Conclusion

This study demonstrates that the caregiving trajectory of MCWSN transcends mere psychological burden, operating as a transformative process that triggers multi-dimensional PTG. The present study draws upon the Life Crises and Growth Model proposed by Schaefer and Moos [84], which posits that the navigation of chronic caregiving adversity can catalyse a profound systemic reconfiguration across the participants' personal systems, environmental resources, and adaptive coping mechanisms. The empirical evidence indicates that the PTG experiences of MCWSN do not entail a complete elimination of distress; rather, they function as an active psychological framework through which mothers reframe chronic stress and buffer against systemic vulnerability. The qualitative narratives emphasise that the discovery of inner fortitude and shifts in life philosophy are functionally intertwined with the utilisation of active fatalism and emotion regulation, both of which are sustained through engagement with specialised micro-communities. The findings indicate that active cognitive-behavioral appraisal and socio-emotional adaptation serve as critical internal resources that facilitate maternal management of affective distress and the cultivation of subjective well-being in the context of ongoing challenges. The core inference derived from this research indicates that the uncovering of these growth trajectories illuminates how parents internalise meaning, adapt their daily routines, and discover latent internal strengths. This adaptive process demonstrates that, even within the demanding and highly regulated realities of special needs parenting, mothers can successfully reconstruct their personal worldviews, mobilise relational networks, and foster sustainable psychological growth.

Supplementary Information

The online version contains supplementary material available at https://doi.org/10.1186/s40359-026-05028-w.

Supplementary Material 1.

Acknowledgements
Many thanks to all the participants.

Authors' contributions
SYK: Project administration, Investigation, Conceptualization, Writing – original draft, Visualization, Validation, Methodology, Formal analysis, Software, Writing – review & editing, Resources. AG: Writing – original draft, Data curation, Methodology, Writing – review & editing, Resources.

Funding
This study has been supported by the Recep Tayyip Erdoğan University Development Foundation (Grant number: 02026006019415).

Data availability
The datasets generated during and/or analyzed during the current study are available from the corresponding author on reasonable request.

Declarations

Ethics approval and consent to participate
This study was approved by the Research Ethics Committee of Recep Tayyip Erdogan University (Ethics Approval Numbers: 2023,3/263, October 27, 2023). The study was conducted in accordance with the principles outlined in the Declaration of Helsinki. Each participant provided informed consent, and it was emphasized that participation was voluntary and could be discontinued at any time without providing reasons.

Consent for publication
Not applicable.

Competing interests
The authors declare no competing interests.

Received: 9 May 2025 / Accepted: 16 June 2026
Published online: 25 June 2026

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