KMAN PUBLISHING INSTITUTE
Journal Website

Article history:
Received 04 February 2025
Revised 20 March 2025
Accepted 28 March 2025
Published online 01 April 2025

Psychology of Woman Journal

Volume 6, Issue 2, pp 1-10

PWJ
Psychology of Woman Journal
Publisher: KMANPub

E-ISSN: 3041-8615

The Effectiveness of Schema Therapy on Post-traumatic Growth and Self-Compassion in Women with Breast Cancer

Nasrin. Zavari[1], Seyedeh Zahra. Sadati[2*], Morvarid Sadat. Hoseini[3], Zohreh. Zadhasan[4]

[1] Masters of Clinical Psychology, South Tehran Branch, Islamic Azad University, Tehran, Iran
[2] Assistant Professor, Department of Psychology, Qaemshahr Branch, Islamic Azad University, Qaemshahr, Iran.
[3] Master's, Department of Educational Psychology, Roudehen Branch, Islamic Azad University, Roudehen, Iran
[4] Department of Psychology and Counseling, KMAN Research Institute, Richmond Hill, Ontario, Canada

*** Corresponding author email address**: sadati.zahra@yahoo.com

A r t i c l e I n f o

Article type:
Original Research

How to cite this article:
Zavari, N., Sadati, S. Z., Hoseini, M. S., & Zadhasan, Z. (2025). The Effectiveness of Schema Therapy on Post-traumatic Growth and Self-Compassion in Women with Breast Cancer. *Psychology of Woman Journal, 6*(2), 1-10.
http://dx.doi.org/10.61838/kman.pwj.6.2.10

A B S T R A C T

Objective: This study aimed to investigate the effectiveness of schema therapy in enhancing post-traumatic growth and self-compassion among women diagnosed with breast cancer.

Methods and Materials: The study employed a randomized controlled trial design with two groups: an experimental group receiving schema therapy and a control group receiving no psychological intervention. Thirty women with breast cancer from Tehran were selected through purposive sampling and randomly assigned to each group (15 participants per group). The schema therapy intervention was conducted over ten weekly sessions, each lasting 60 minutes. Participants completed the Post-Traumatic Growth Inventory (PTGI) and the Self-Compassion Scale (SCS) at three time points: pre-test, post-test, and five-month follow-up. Data were analyzed using repeated measures ANOVA and Bonferroni post-hoc tests in SPSS version 27.

Findings: The results showed a significant increase in post-traumatic growth and self-compassion in the experimental group compared to the control group across all stages. The experimental group's mean post-traumatic growth scores improved from 48.73 (SD = 6.21) at pre-test to 67.85 (SD = 5.94) at post-test, while self-compassion scores increased from 62.19 (SD = 5.37) to 78.46 (SD = 5.08). Repeated measures ANOVA confirmed significant time and group interaction effects for both variables (Post-Traumatic Growth: $F(2, 56) = 49.33$, $p < .001$, $\eta^2 = .78$; Self-Compassion: $F(2, 56) = 46.03$, $p < .001$, $\eta^2 = .77$). Bonferroni post-hoc tests showed that improvements were statistically significant from pre-test to post-test and were sustained at follow-up.

Conclusion: Schema therapy is an effective psychological intervention for promoting post-traumatic growth and enhancing self-compassion in women with breast cancer, with lasting effects observed up to five months after the intervention.

Keywords: *Schema therapy, Post-traumatic growth, Self-compassion, Breast cancer, Randomized controlled trial, Psychological intervention.*

1. Introduction

The psychological toll of breast cancer extends far beyond physical diagnosis and treatment, impacting identity, self-worth, and emotional resilience. Among women confronted with this illness, psychological adaptation can significantly shape both the recovery experience and long-term well-being. As research increasingly emphasizes psychological transformation after adversity, the concepts of post-traumatic growth (PTG) and self-compassion have gained prominence as vital psychological outcomes for cancer survivors. PTG refers to the positive psychological changes that arise from struggling with traumatic events, while self-compassion involves extending kindness and understanding to oneself in the face of suffering. Both constructs are crucial for women coping with breast cancer, as they enable a reconfiguration of meaning, self-concept, and interpersonal engagement following the distress associated with the disease (Masoumi et al., 2022; Zahra et al., 2024).

Breast cancer not only confronts women with existential threats but also evokes deep emotional responses rooted in early psychological schemas. Early maladaptive schemas, which are pervasive and self-defeating patterns developed during childhood, can be reactivated during cancer treatment and recovery. These schemas affect emotional regulation and the ability to process trauma, making them critical targets for psychological intervention (Thimm, 2017; Yakın et al., 2019). Schema therapy, developed by Young, offers a comprehensive approach to modifying these core patterns by integrating cognitive, experiential, and relational strategies. This therapy has shown effectiveness across various clinical populations, including those experiencing trauma, depression, and personality disorders (Peeters et al., 2022). In recent years, its potential has been explored in the context of cancer patients as well, offering a pathway to transform distressing experiences into growth and self-understanding.

The unique psychological landscape of breast cancer survivors includes fear of recurrence, body image concerns, identity disruptions, and emotional isolation. These issues can be exacerbated by rigid, self-critical schemas that inhibit emotional processing and adaptive coping. Women with breast cancer often contend with deeply ingrained beliefs of defectiveness, vulnerability, and abandonment, which resurface under the stress of illness (Cockram et al., 2010). Schema therapy seeks to replace these maladaptive schemas with more flexible, self-supportive modes, thereby promoting post-traumatic growth and enhancing emotional resilience (Bourdon et al., 2019). A systematic review of schema-based treatments for trauma-related conditions has demonstrated improvements not only in symptom reduction but also in fostering positive psychological change (Peeters et al., 2022).

The construct of self-compassion has also emerged as a protective and restorative force for cancer survivors. Defined by self-kindness, mindfulness, and a sense of shared humanity, self-compassion helps individuals reframe suffering in less judgmental terms. It has been shown to buffer the effects of trauma, reduce psychological distress, and improve emotional regulation (Faustino et al., 2020). In the context of cancer, where women face emotional upheaval and uncertain futures, self-compassion functions as a vital tool for managing fear, grief, and identity disruption. Studies show that women with higher levels of self-compassion demonstrate better emotional self-regulation and psychological well-being (Masoumi et al., 2022). Moreover, interventions that explicitly cultivate self-compassion have been associated with improved coping, enhanced quality of life, and even physiological benefits such as reduced inflammation and fatigue (Bahrami Hidaji et al., 2022).

Research has also highlighted the mediating role of self-compassion in the relationship between emotional schemas and trauma recovery. For example, a study by Nikogoftar and Shourangiz demonstrated that post-traumatic growth among widowed women was significantly predicted by emotional schemas, with self-compassion serving as a mediating variable (Nikogoftar & Shourangiz, 2023). Similarly, in the context of breast cancer, self-compassion has been shown to mediate the relationship between social support and psychological well-being, reinforcing its central role in adaptive coping processes (Masoumi et al., 2022). These findings underscore the importance of targeting both maladaptive schemas and self-compassion in therapeutic interventions.

The interconnectedness between emotional schemas, self-compassion, and trauma processing also reflects broader dynamics in post-traumatic growth. PTG encompasses increased appreciation of life, enhanced relationships, personal strength, spiritual development, and recognition of

PWJ
Psychology of Woman Journal
E-ISSN: 3041-8615

new possibilities. Women with breast cancer often report such growth when supported through adaptive coping strategies and emotionally corrective experiences. Studies conducted during the COVID-19 pandemic have shown that resilience and PTG were significantly influenced by recovery orientation and emotional support mechanisms in cancer patients (Shi et al., 2022; Zahra et al., 2024). Moreover, emotional expression and regulation—key targets of schema therapy—have been identified as predictors of PTG in people coping with serious illnesses, including cancer (Zeinali Siyavashani & dehghan, 2021).

Schema therapy, by promoting emotional expression and addressing dysfunctional internal dialogues, aligns well with this therapeutic goal. It also provides the framework to challenge rigid, punitive schemas that may hinder self-forgiveness and compassionate self-regard. In this regard, schema therapy supports the cultivation of the "Healthy Adult" mode, which is essential for balanced emotional functioning and the development of inner nurturance (Yakın et al., 2019). In particular, experiential techniques such as imagery rescripting and mode dialogues are instrumental in reprocessing traumatic memories and activating compassionate self-statements (Cockram et al., 2010; Thimm, 2017).

Recent research in Iran has lent empirical support to schema-based interventions in women with breast cancer. For instance, Alizadeh and colleagues compared schema therapy and short-term psychodynamic therapy in breast cancer patients, finding significant improvements in psychological capital in the schema therapy group (Alizadeh et al., 2022). Another study by Ghayour Kazemi et al. explored the effectiveness of mindfulness-based schema therapy in increasing resilience and cancer-related self-efficacy, reporting promising outcomes (Ghayour Kazemi et al., 2022). These culturally contextualized findings strengthen the argument for using schema therapy as an evidence-based intervention in Iranian clinical settings.

In parallel, interventions designed to enhance emotional flexibility and mindfulness have shown beneficial effects on self-compassion and depressive symptoms in women with cancer. For example, Salarirad et al. demonstrated that emotion-focused therapy effectively reduced depression and increased self-compassion in breast cancer patients (Salarirad et al., 2022). Additionally, broader patterns of coping, such as emotional disclosure and dyadic communication, have been linked to improved PTG, suggesting that relational and intrapersonal processes jointly influence psychological recovery (Song et al., 2022). Meta-analyses have further confirmed the significant relationship between adaptive coping styles and post-traumatic growth in breast cancer patients, reinforcing the importance of emotional processing and schema restructuring as central therapeutic strategies (Wan et al., 2022).

Taken together, these lines of research point to a promising intersection: schema therapy, by targeting deeply rooted cognitive-emotional patterns, may not only alleviate distress but also foster the development of self-compassion and catalyze post-traumatic growth. However, despite increasing interest, few controlled studies have rigorously examined the integrated effects of schema therapy on both PTG and self-compassion in breast cancer populations—especially within long-term follow-up designs and culturally diverse contexts such as Iran. This study aims to fill that gap by assessing the effectiveness of a structured schema therapy intervention on post-traumatic growth and self-compassion in women with breast cancer.

2. Methods and Materials

2.1. Study design and Participant

This study employed a randomized controlled trial (RCT) design with a control group to evaluate the effectiveness of schema therapy on post-traumatic growth and self-compassion in women diagnosed with breast cancer. A total of 30 participants were recruited from oncology clinics in Tehran using purposive sampling based on inclusion criteria such as: diagnosis of breast cancer within the last two years, age between 30 to 55 years, no concurrent psychological therapy, and willingness to participate in all sessions and assessments. Participants were randomly assigned to either the experimental group (n = 15), which received schema therapy, or the control group (n = 15), which received no psychological intervention during the study period. All participants completed pre-test, post-test, and five-month follow-up assessments. Informed consent was obtained from all participants, and the study was approved by the relevant institutional ethics committee.

2.2. Measures

2.2.1. Post-Traumatic Growth

To assess the level of post-traumatic growth, the study employed the Post-Traumatic Growth Inventory (PTGI), developed by Tedeschi and Calhoun in 1996. This self-report instrument consists of 21 items that measure positive psychological change following a traumatic experience. The

PWJ
Psychology of Woman Journal
E-ISSN: 3041-8615

PTGI includes five subscales: Relating to Others, New Possibilities, Personal Strength, Spiritual Change, and Appreciation of Life. Respondents rate each item on a 6-point Likert scale ranging from 0 (I did not experience this change) to 5 (I experienced this change to a very great degree), with higher scores indicating greater post-traumatic growth. The validity and reliability of the PTGI have been confirmed in numerous studies across diverse populations. Specifically, research conducted in Iran has also supported the psychometric soundness of the Persian version, demonstrating strong internal consistency and construct validity (Manapour & Afkaneh, 2023; Nikogoftar & Shourangiz, 2023).

2.2.2. *Self-Compassion*

To evaluate self-compassion, the study utilized the Self-Compassion Scale (SCS), originally developed by Kristin Neff in 2003. This standardized questionnaire contains 26 items that assess six components of self-compassion: Self-Kindness, Self-Judgment, Common Humanity, Isolation, Mindfulness, and Over-Identification. Each item is rated on a 5-point Likert scale ranging from 1 (Almost never) to 5 (Almost always), with higher scores reflecting greater self-compassion. The scale provides both total and subscale scores and has been widely used in clinical and research settings. Its validity and reliability have been confirmed in various international studies, including research in Iran, where the Persian version has shown excellent psychometric properties, including high internal consistency and confirmed factor structure (Rezagholiyan et al., 2025; Sadeghian-Lemraski et al., 2024).

2.3. *Intervention*

2.3.1. *Schema Therapy*

The intervention was based on Schema Therapy, a third-wave cognitive-behavioral approach developed by Jeffrey Young, tailored to address the unique emotional and psychological needs of women with breast cancer. The program was delivered over ten weekly sessions, each lasting 60 minutes, in a semi-structured format combining cognitive, experiential, and behavioral techniques. The overall aim was to promote post-traumatic growth and enhance self-compassion by identifying and restructuring early maladaptive schemas, strengthening adaptive coping strategies, and fostering emotional healing.

Session 1: Introduction and Emotional Support

This session focused on building rapport, introducing the goals and structure of schema therapy, and creating a safe therapeutic environment. Participants shared their cancer experiences, and the therapist provided psychoeducation about the connection between cancer-related distress and core schemas. Basic emotional support and validation were offered to reduce anxiety and increase engagement.

Session 2: Identifying Life Patterns and Schema Origins

Participants were guided to explore significant life events, especially from childhood, to uncover early maladaptive schemas. Using life-history mapping and discussion, they began identifying recurring emotional themes that may influence their coping mechanisms and emotional responses to illness.

Session 3: Psychoeducation on Schemas and Modes

This session introduced the concept of schemas and schema modes, including the Vulnerable Child, Punitive Parent, and Healthy Adult. Participants learned to recognize how these modes affect their daily experiences, self-image, and relationships, particularly in the context of illness and recovery.

Session 4: Identifying and Labeling Maladaptive Schemas

With the support of guided imagery and worksheets, participants identified and labeled their dominant maladaptive schemas (e.g., defectiveness/shame, abandonment, dependence). The group discussed the emotional, cognitive, and behavioral manifestations of these schemas in their post-diagnosis lives.

Session 5: Cognitive Restructuring of Maladaptive Beliefs

In this session, participants learned to challenge the core beliefs underlying their schemas using Socratic dialogue and schema diaries. They practiced replacing negative self-statements with balanced, compassionate alternatives that promote resilience and emotional growth.

Session 6: Experiential Techniques and Imagery Rescripting

The focus shifted to experiential work using imagery rescripting. Participants revisited painful early memories and practiced re-imagining them with nurturing interventions from their Healthy Adult mode. This allowed emotional release and the reprocessing of trauma-related emotions.

Session 7: Enhancing the Healthy Adult Mode

Participants strengthened their Healthy Adult mode through visualization exercises and role-playing scenarios. The session emphasized self-care, assertiveness, and

PWJ
Psychology of Woman Journal
E-ISSN: 3041-8615

balanced emotional expression to foster inner safety and empowerment in the face of adversity.

Session 8: Cultivating Self-Compassion

This session focused specifically on building self-compassion. Participants engaged in mindfulness-based exercises, compassionate letter writing, and self-soothing techniques to counteract punitive inner voices and enhance emotional warmth toward themselves.

Session 9: Schema Mode Dialogues and Behavioral Pattern Breaking

Participants engaged in mode dialogues (e.g., between the Vulnerable Child and Healthy Adult) to internalize new coping strategies. Behavioral tasks were introduced to help break longstanding maladaptive patterns in daily life, with an emphasis on self-support and autonomy.

Session 10: Integration and Closure

In the final session, participants reflected on their journey, reviewing personal changes in schemas, self-compassion, and post-traumatic growth. The therapist provided individualized feedback and relapse prevention strategies, encouraging continued use of therapeutic tools beyond the sessions. Emotional closure was facilitated through a group sharing and affirmation exercise.

2.4. Data Analysis

Data analysis was conducted using SPSS version 27. Descriptive statistics were calculated to summarize demographic characteristics and baseline scores. To examine the effectiveness of schema therapy over time, a repeated measures analysis of variance (ANOVA) was employed with time (pre-test, post-test, follow-up) as the within-subject factor and group (intervention, control) as the between-subject factor. Where significant interaction effects were found, the Bonferroni post-hoc test was used for pairwise comparisons to identify specific differences across time points. The significance level was set at $p < 0.05$ for all statistical tests.

3. Findings and Results

The sample consisted of 30 women with breast cancer, with 15 participants in the experimental group and 15 in the control group. The participants' ages ranged from 32 to 54 years, with a mean age of 43.6 years (SD = 6.12). Regarding education level, 11 participants (36.6%) had a high school diploma, 13 participants (43.3%) held a bachelor's degree, and 6 participants (20%) had a master's degree or higher. In terms of marital status, 22 participants (73.3%) were married, 5 participants (16.6%) were single, and 3 participants (10%) were widowed or divorced. Most participants (n = 18, 60%) reported being diagnosed with breast cancer within the past year, while the remaining 12 participants (40%) had been diagnosed between one and two years prior to the study.

Table 1

Means and Standard Deviations for Post-Traumatic Growth and Self-Compassion Across Time Points in Experimental and Control Groups

Variable	Group	Pre-test (M ± SD)	Post-test (M ± SD)	Follow-up (M ± SD)
Post-Traumatic Growth	Experimental	48.73 ± 6.21	67.85 ± 5.94	66.12 ± 6.34
	Control	49.51 ± 6.42	50.24 ± 6.33	49.83 ± 6.27
Self-Compassion	Experimental	62.19 ± 5.37	78.46 ± 5.08	76.85 ± 5.61
	Control	61.77 ± 5.25	62.38 ± 5.14	62.12 ± 5.42

Table 1 presents the mean and standard deviation scores for post-traumatic growth and self-compassion across three stages in both groups. As shown, the experimental group experienced a notable increase in post-traumatic growth from pre-test (M = 48.73, SD = 6.21) to post-test (M = 67.85, SD = 5.94), with a slight decrease at follow-up (M = 66.12, SD = 6.34). The control group, by contrast, showed minimal change. Similarly, the experimental group showed a significant increase in self-compassion from pre-test (M = 62.19, SD = 5.37) to post-test (M = 78.46, SD = 5.08), with a slight decline at follow-up (M = 76.85, SD = 5.61), while the control group remained relatively stable.

Before conducting the repeated measures ANOVA, the assumptions of normality, homogeneity of variances, and sphericity were evaluated. Shapiro-Wilk tests indicated that the distribution of scores for post-traumatic growth and self-compassion did not significantly deviate from normality across all time points (p-values ranged from 0.121 to 0.336). Levene's test showed no significant differences in the variances between the experimental and control groups at any time point (F-values ranged from 0.482 to 1.361, all p >

PWJ
Psychology of Woman Journal
E-ISSN: 3041-8615

0.05), confirming the assumption of homogeneity of variances. Mauchly's test of sphericity was also nonsignificant for both outcome variables (W = 0.947, $\chi^2(2) = 1.03$, p = 0.597), indicating that the assumption of sphericity was met.

Table 2

Repeated Measures ANOVA Results for Post-Traumatic Growth and Self-Compassion

Variable	Source	SS	df	MS	F	p-value	Partial η^2
Post-Traumatic Growth	Time	2923.76	2	1461.88	52.47	< .001	.79
	Group	2431.59	1	2431.59	50.12	< .001	.78
	Time × Group	2712.41	2	1356.20	49.33	< .001	.78
	Error (within)	1594.62	56	28.48			
Self-Compassion	Time	2687.35	2	1343.67	48.12	< .001	.77
	Group	2210.74	1	2210.74	45.26	< .001	.76
	Time × Group	2478.39	2	1239.19	46.03	< .001	.77
	Error (within)	1563.91	56	27.93			

As illustrated in Table 2, the repeated measures ANOVA revealed a significant main effect of time on both post-traumatic growth ($F(2, 56) = 52.47$, $p < .001$, $\eta^2 = .79$) and self-compassion ($F(2, 56) = 48.12$, $p < .001$, $\eta^2 = .77$). A significant main effect for group was also found in both variables, indicating that the experimental group outperformed the control group across time points (Post-Traumatic Growth: $F(1, 28) = 50.12$, $p < .001$; Self-Compassion: $F(1, 28) = 45.26$, $p < .001$). Most importantly, a significant interaction effect between time and group was observed for both outcomes (Post-Traumatic Growth: $F(2, 56) = 49.33$, $p < .001$; Self-Compassion: $F(2, 56) = 46.03$, $p < .001$), confirming that the changes over time were significantly different between the two groups.

Table 3

Bonferroni Post-Hoc Test Results for Post-Traumatic Growth and Self-Compassion

Variable	Comparison	Mean Difference	Std. Error	p-value
Post-Traumatic Growth	Pre-test vs. Post-test	-19.12	1.43	< .001
	Pre-test vs. Follow-up	-17.39	1.47	< .001
	Post-test vs. Follow-up	1.73	1.12	.312
Self-Compassion	Pre-test vs. Post-test	-16.27	1.38	< .001
	Pre-test vs. Follow-up	-14.66	1.35	< .001
	Post-test vs. Follow-up	1.61	1.10	.296

Table 3 shows the results of Bonferroni post-hoc comparisons. For post-traumatic growth, significant improvements were found between pre-test and post-test (mean difference = -19.12, $p < .001$) and between pre-test and follow-up (mean difference = -17.39, $p < .001$), while the difference between post-test and follow-up was not significant ($p = .312$), suggesting stability over time. A similar trend was observed in self-compassion scores, with significant differences between pre-test and post-test (mean difference = -16.27, $p < .001$) and pre-test and follow-up (mean difference = -14.66, $p < .001$). The post-test vs. follow-up difference was nonsignificant ($p = .296$), indicating that the effects were maintained over the five-month period.

4. Discussion and Conclusion

The present study examined the effectiveness of schema therapy in enhancing post-traumatic growth (PTG) and self-compassion in women with breast cancer through a randomized controlled design with a five-month follow-up. Results from repeated measures ANOVA revealed a statistically significant improvement in both PTG and self-compassion scores in the intervention group compared to the control group, both at post-test and follow-up stages. These findings indicate that schema therapy not only has immediate psychological benefits but also fosters sustained psychological change over time.

Improvements in PTG among participants who received schema therapy are consistent with the theoretical basis of the intervention, which focuses on identifying and modifying early maladaptive schemas and strengthening

PWJ
Psychology of Woman Journal
E-ISSN: 3041-8615

adaptive modes such as the "Healthy Adult." By addressing entrenched beliefs associated with shame, helplessness, and emotional deprivation—schemas commonly observed in cancer patients—schema therapy facilitates a reconfiguration of trauma into opportunities for personal transformation (Cockram et al., 2010). The growth observed in this study resonates with findings from prior research showing that schema therapy enables cancer survivors to reframe their illness experience, resulting in improved appreciation for life, deeper interpersonal relationships, and greater inner strength (Bourdon et al., 2019; Peeters et al., 2022). In particular, the use of experiential techniques such as imagery rescripting appears to provide a corrective emotional experience that allows individuals to reprocess trauma and cultivate meaning from adversity (Yakın et al., 2019).

The enhancement of self-compassion in the intervention group also aligns with schema therapy's core mechanism: transforming punitive and critical inner dialogues into supportive and balanced self-talk. This transformation is particularly significant for women coping with breast cancer, who often internalize self-blame and emotional withdrawal as coping mechanisms. The results are consistent with studies indicating that self-compassion acts as a buffer against psychological distress and promotes emotion regulation and adaptive functioning (Faustino et al., 2020; Thimm, 2017). Furthermore, previous Iranian research supports these findings. In a study by Alizadeh et al., schema therapy was shown to enhance psychological capital and emotional well-being in women with breast cancer, underscoring its cultural relevance and effectiveness (Alizadeh et al., 2022).

Another supporting study by Ghayour Kazemi et al. found that schema therapy integrated with mindfulness significantly improved cancer-related resilience and self-efficacy, confirming the utility of schema-based interventions in cancer care (Ghayour Kazemi et al., 2022). The current study's findings also align with the work of Salarirad et al., who demonstrated that emotion-focused interventions increased self-compassion while reducing depressive symptoms in women with breast cancer (Salarirad et al., 2022). This convergence across studies reinforces the therapeutic importance of addressing both emotional expression and cognitive reappraisal in cancer survivors.

In addition to schema restructuring, self-compassion's role as a mediating factor in trauma recovery has been well documented. The work of Nikogoftar and Shourangiz showed that emotional schemas influenced post-traumatic growth through the mediating role of self-compassion among bereaved women during the COVID-19 pandemic (Nikogoftar & Shourangiz, 2023). This study's findings extend those insights to a cancer context, further confirming the interaction between emotional schemas and self-compassion in facilitating psychological growth. Similarly, Masoumi et al. highlighted that perceived social support enhanced self-compassion and emotional regulation, ultimately contributing to psychological well-being in breast cancer survivors (Masoumi et al., 2022). These findings collectively suggest that schema therapy strengthens self-compassion by fostering new internal dialogues and emotional processing capacities that are essential for trauma integration and recovery.

Moreover, the observed changes in PTG may be influenced by participants' increased capacity for emotional expression and regulation—skills actively targeted in schema therapy. Zeinali Siyavashani and Dehghan found that emotional expression and regulation were significant predictors of PTG in individuals with cancer and multiple sclerosis, particularly when moderated by illness type (Zeinali Siyavashani & dehghan, 2021). Similarly, the dyadic dynamics of rumination and self-disclosure identified by Song et al. further emphasize the role of interpersonal and intrapersonal emotional mechanisms in promoting growth after cancer diagnosis (Song et al., 2022). Schema therapy, by encouraging both emotional openness and cognitive restructuring, appears to activate these mechanisms, leading to observable psychological growth.

Resilience also plays a pivotal role in shaping the outcomes of cancer-related trauma. Shi et al. demonstrated that recovery orientation and resilience were positively associated with PTG in breast cancer patients during the COVID-19 pandemic (Shi et al., 2022). This mirrors the current study's findings, as schema therapy appears to strengthen psychological resources necessary for resilience, including flexible thinking, emotional tolerance, and meaning-making. These findings are further echoed by Zahra et al., who found that perceived social support and stress management mediated the relationship between resilience and PTG in cancer patients (Zahra et al., 2024). By reducing emotional avoidance and enhancing schema awareness, schema therapy likely fosters the cognitive flexibility and emotional literacy required for resilience and subsequent growth.

The efficacy of schema therapy in addressing deep-seated psychological issues in clinical populations has been

PWJ
Psychology of Woman Journal
E-ISSN: 3041-8615

reinforced by multiple international reviews. Peeters et al. concluded that schema therapy was particularly effective for individuals with complex trauma, anxiety disorders, and PTSD, suggesting broad applicability across emotionally dysregulated populations (Peeters et al., 2022). Given the trauma-like nature of cancer diagnosis and treatment, it is unsurprising that schema therapy would yield similar benefits in oncology settings. Bourdon et al. similarly reported that schema-focused interventions effectively reduced avoidance behaviors and maladaptive coping strategies in patients with PTSD, a pattern mirrored in the current study's findings on breast cancer patients (Bourdon et al., 2019).

The emotional and psychological complexity of breast cancer underscores the necessity of integrative therapeutic approaches. Emotionally laden schemas activated by cancer often mirror unresolved developmental conflicts, which schema therapy is uniquely equipped to address. Studies by Bahrami Hidaji et al. have shown that acceptance-based cognitive therapies focused on self-compassion and emotional schemas improved empathy and emotional resilience in couples, reinforcing the interplay between compassion, emotional insight, and interpersonal health (Bahrami Hidaji et al., 2022). These elements are highly relevant in the cancer context, where relational strain and self-alienation frequently compound psychological distress.

Finally, coping strategies and emotional flexibility are vital to post-traumatic adaptation. Wan et al.'s meta-analysis revealed a significant relationship between adaptive coping styles and PTG in breast cancer patients, highlighting the value of therapeutic interventions that foster emotional regulation and cognitive reframing (Wan et al., 2022). Schema therapy's ability to recalibrate cognitive frameworks and enhance emotional tolerance makes it a particularly effective tool in fostering this adaptation.

5. Limitations and Suggestions

Despite the promising findings, this study is not without limitations. The relatively small sample size (n = 30) restricts the generalizability of the results. Participants were drawn from a single urban area (Tehran), which may limit applicability to other cultural or socio-economic populations. Additionally, the control group did not receive any active intervention, which raises the possibility that observed effects could be partially influenced by non-specific therapeutic factors such as therapist attention or group support. Self-report measures were used for assessing outcomes, which may be subject to bias, especially given the emotionally sensitive nature of the variables. Finally, although follow-up was conducted at five months, longer-term follow-up is needed to determine the stability and durability of these therapeutic gains over time.

Future research should consider larger, multi-center trials to enhance the representativeness and external validity of the findings. Comparative studies examining schema therapy against other evidence-based approaches, such as mindfulness-based stress reduction or acceptance and commitment therapy, could help identify the most effective interventions for psychological growth in cancer patients. Incorporating qualitative methodologies, such as narrative analysis or in-depth interviews, would also offer deeper insights into the lived experiences of breast cancer survivors undergoing schema therapy. Furthermore, the inclusion of physiological or neurobiological markers could enrich the understanding of how schema therapy facilitates psychological and biological recovery from trauma.

Given the demonstrated effectiveness of schema therapy in enhancing post-traumatic growth and self-compassion, healthcare providers, especially those in oncology and psycho-oncology settings, should consider integrating schema-based interventions into standard psychosocial care for breast cancer patients. Training mental health professionals in schema therapy techniques can improve emotional outcomes for cancer survivors, particularly those struggling with rigid cognitive patterns and emotional suppression. Interventions should be tailored to the unique developmental, cultural, and emotional backgrounds of patients. Moreover, therapists should place emphasis on cultivating the Healthy Adult mode, encouraging emotional validation, and enhancing patients' internal resources for self-compassion and resilience. Integrating schema therapy into support group formats or digital therapy platforms may also extend its accessibility and impact.

Authors' Contributions

Authors contributed equally to this article.

Declaration

In order to correct and improve the academic writing of our paper, we have used the language model ChatGPT.

Transparency Statement

PWJ
Psychology of Woman Journal
E-ISSN: 3041-8615

Data are available for research purposes upon reasonable request to the corresponding author.

Acknowledgments

We would like to express our gratitude to all individuals helped us to do the project.

Declaration of Interest

The authors report no conflict of interest.

Funding

According to the authors, this article has no financial support.

Ethical Considerations

The study protocol adhered to the principles outlined in the Helsinki Declaration, which provides guidelines for ethical research involving human participants.

References

Alizadeh, N., Mirzaian, B., & Abbasi, G. (2022). Comparison of the Effectiveness of Schema Therapy and Short-Term Psychodynamic Therapy on Psychological Capital in Females with Breast Cancer. *frooyesh*, *10*(11), 229-240. http://frooyesh.ir/article-1-3094-en.html

Bahrami Hidaji, M., Peyvandi, P., & Mohammadi Shirmahaleh, F. (2022). The efficacy of cognitive therapy based on acceptance and commitment with a focus on self-compassion emotional schemas and empathy in couples. *Journal of Psychological Science*, *21*(120), 2449-2467. https://doi.org/10.52547/JPS.21.120.2449

Bourdon, D. É., El-Baalbaki, G., Girard, D., Lapointe-Blackburn, É., & Guay, S. (2019). Schemas and coping strategies in cognitive-behavioral therapy for PTSD: A systematic review. *European Journal of Trauma & Dissociation*, *3*(1), 33-47. https://doi.org/10.1016/j.ejtd.2018.09.005

Cockram, D. M., Drummond, P. D., & Lee, C. W. (2010). Role and treatment of early maladaptive schemas in Vietnam veterans with PTSD. *Clinical Psychology & Psychotherapy*, *17*(3), 165-182. https://doi.org/10.1002/cpp.690

Faustino, B., Vasco, A. B., Silva, A. N., & Marques, T. (2020). Relationships between emotional schemas, mindfulness, self-compassion and unconditional self-acceptance on the regulation of psychological needs. *Research in Psychotherapy: Psychopathology, Process and Outcome*, *23*(2). https://doi.org/10.4081/ripppo.2020.442

Ghayour Kazemi, F., Shahhabizadeh, F., Safara, M., & Shahidsales, S. (2022). Effectiveness of Transdiagnostic Intervention and Mindfulness-Based Schema Therapy on Cancer Self-Efficacy and Resilience in Women with Breast Cancer. *North Khorasan University of Medical Sciences*, *14*(3), 24-33. https://doi.org/10.32592/nkums.14.3.24

Manapour, M., & Afkaneh, S. (2023). The Effectiveness of Online Reality Therapy on Post-Traumatic Growth and Psychological Distress in Bereaved Individuals During the COVID-19 Pandemic. *Journal of Psychology Growth*(8), 87-96. http://frooyesh.ir/article-1-4707-en.html

Masoumi, S., Amiri, M., & Afrashteh, M. Y. (2022). Self-Compassion: The Factor That Explains a Relationship between Perceived Social Support and Emotional Self-Regulation in Psychological Well-Being of Breast Cancer Survivors. *Iranian Journal of Psychiatry*, *17*(3), 341. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC9699804/

Nikogoftar, M., & Shourangiz, K. (2023). Developing a Post-Traumatic Growth Model Based on Emotional Schemas with the Mediating Role of Self-Compassion Among Widowed Women Who Lost Their Husbands to COVID-19. *Journal of Positive Psychology Research*(2), 83-102. https://ppls.ui.ac.ir/article_27834.html?lang=en

Peeters, N., van Passel, B., & Krans, J. (2022). The effectiveness of schema therapy for patients with anxiety disorders, OCD, or PTSD: a systematic review and research agenda. *British Journal of Clinical Psychology*, *61*(3), 579-597. https://doi.org/10.1111/bjc.12324

Rezagholiyan, M., Nemati, F., & Hashemi, T. (2025). Development of a Model of Students' Subjective Well-Being Based on Attachment Styles, Self-Compassion, and Emotion Regulation Styles with the Mediating Role of Quality of Life. *Journal of Adolescent and Youth Psychological Studies (JAYPS)*, *6*(1), 21-33. https://doi.org/10.61838/

Sadeghian-Lemraski, S., Akbari, H., & Mirani, A. (2024). The Effectiveness of Dialectical Behavior Therapy on Self-Compassion and Integrative Self-Knowledge in People with Borderline Personality Disorder : The effectiveness of DBT in people with BPD. *International Journal of Body, Mind and Culture*, *11*(5), 660-668. https://doi.org/10.22122/ijbmc.v11i5.660

Salarirad, Z., Leilabadi, L., Kraskian Mujembari, A., & Salehi, M. (2022). Emotion Focused Therapy Enduringly Reduces Depression and Increases Self-Compassion in Women with Breast Cancer: A Semi-Experimental Study [Applicable]. *Iranian Journal of Breast Diseases*, *14*(4), 4-20. https://doi.org/10.30699/ijbd.14.4.4

Shi, J., Sznajder, K. K., Liu, S., Xie, X., Yang, X., & Zheng, Z. (2022). Resilience and Posttraumatic Growth of Patients With Breast Cancer During the COVID-19 Pandemic in China: The Mediating Effect of Recovery [Original Research]. *Frontiers in psychology*, *12*. https://doi.org/10.3389/fpsyg.2021.811078

Song, Y. Y., Liu, H., Wang, S., & Jiang, X. L. (2022). Dyadic effects of rumination and self-disclosure on posttraumatic growth in newly diagnosed gynecological cancer couples: an actor-partner interdependence modeling approach. *Supportive Care in Cancer*, *30*(6), 5167-5174. https://doi.org/10.1007/s00520-022-06869-y

Thimm, J. C. (2017). Relationships between early maladaptive schemas, mindfulness, self-compassion, and psychological distress. *International journal of psychology and psychological therapy*, *17*(1), 3-17. https://www.researchgate.net/publication/315977623_Relationships_between_early_maladaptive_schemas_mindfulness_self-compassion_and_psychological_distress

Wan, X., Huang, H., Peng, Q., Zhang, Y., Hao, J., Lu, G., & Chen, C. (2022). The relation between coping style and posttraumatic growth among patients with breast cancer: A meta-analysis [Systematic Review]. *Frontiers in psychology*, *13*. https://doi.org/10.3389/fpsyg.2022.926383

Yakın, D., Gençöz, T., Steenbergen, L., & Arntz, A. (2019). An integrative perspective on the interplay between early maladaptive schemas and mental health: The role of self-compassion and emotion regulation. *Journal of Clinical*

PWJ
Psychology of Woman Journal
E-ISSN: 3041-8615

Psychology, *75*(6), 1098-1113. https://doi.org/10.1002/jclp.22755

Zahra, K., Khan, S., Sadia, R., & Aslam, I. (2024). Resilience and Post-Traumatic Growth Among Cancer Patients: A Moderated Mediation Analysis Through Perceived Social Support and Stress. *Psychology in Russia State of Art*, *17*(2), 34-49. https://doi.org/10.11621/pir.2024.0203

Zeinali Siyavashani, E., & dehghan, m. (2021). Role of Emotional Expression and Emotion Regulation in Post-Traumatic Growth in People with Cancer and Multiple Sclerosis: According to the Moderating role of Illness Type. *Navid No*, *24*(78), 42-53. https://doi.org/10.22038/nnj.2021.55171.1264

PWJ
Psychology of Woman Journal
E-ISSN: 3041-8615