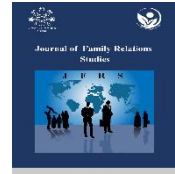




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Research Paper

Effectiveness of Schema Therapy on Cognitive-Emotional Regulation, Distress Tolerance and Quality of Life in Women as Heads of Households



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ABSTRACT

Objective: The present study was conducted with the aim of investigating the effectiveness of schema therapy on cognitive-emotional regulation, distress tolerance, and quality of life in women as heads of households.

Methods: The present study employed a quasi-experimental design with pre-test-post-test and a control group. The sample consisted of 30 women as heads of households with adolescent children in Ardabil city, selected through convenience sampling and randomly assigned to experimental (n=15) and control (n=15) groups. The experimental group received eight 90-minute sessions of schema therapy (Young et al., 2003), while the control group received no intervention. Data were collected using the Cognitive Emotion Regulation Questionnaire (CERQ-18), the Distress Tolerance Scale (DTS), and Quality of Life Questionnaire (SF-36). Multivariate analysis of covariance (MANCOVA) was used for data analysis.

Results: The results of the analysis of covariance showed that schema therapy significantly improved cognitive-emotional regulation, distress tolerance, and quality of life in women as heads of households ($p < .001$). Effect sizes were strong for adaptive strategies ($\eta^2 = .76$), maladaptive strategies ($\eta^2 = .77$), distress tolerance ($\eta^2 = .71$), and quality of life ($\eta^2 = .81$).

Conclusion: Schema therapy, by modifying maladaptive schemas and improving emotion regulation, increases distress tolerance and quality of life in women as heads of households. This brief and efficient method, if widely implemented in counseling and support centers, leads to positive individual and intergenerational outcomes.

1. Introduction

Women as heads of households, bearing the burden of multiple financial, emotional, and parenting responsibilities without a partner, are exposed to significant psychological vulnerability (Dharani & Balamurugan, 2024). In the social context of Iran, factors such as the rising rate of divorce and spouse bereavement

have increased the size of this population and placed them at high risk for the development and persistence of disorders such as depression and anxiety disorders (Choobforoushzadeh et al., 2025). Epidemiological studies have estimated the rate of mental health problems in this group to be as high as fifty percent, the adverse

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consequences of which manifest at both individual and intergenerational levels (Trias-Prats & Esteve, 2025). Research also indicates a high prevalence of mood and anxiety disorders in this population, with approximately half of these mothers suffering from some degree of such disorders (Ekaputri et al., 2025). Despite the high prevalence of psychological disorders among women as heads of households, the underlying mechanisms contributing to these vulnerabilities have received considerably less attention.

One such mechanism that appears to be particularly relevant to this population is cognitive-emotional regulation. Cognitive-emotional regulation refers to the cognitive strategies individuals employ to manage, modify, or control the intensity and duration of emotional responses in the face of stressful events (Sadri Damirchi et al., 2025). These strategies are conceptualized as cognitive coping mechanisms that enable individuals to process emotionally arousing information and regulate their emotional experiences (Noroozi Homayoon, Ghohari, et al., 2025). Cognitive-emotional regulation strategies are broadly categorized into adaptive and maladaptive strategies (Noroozi Homayoon, Akhavi Samarein, et al., 2025). Adaptive strategies include positive refocusing, positive reappraisal, acceptance, refocusing on planning, and perspective-taking, which facilitate effective coping and psychological well-being (Li et al., 2026). In contrast, maladaptive strategies such as rumination, self-blame, blaming others, and catastrophizing are associated with emotional distress and psychopathology (Yılmaz & Bahadır, 2026). Effective cognitive-emotional regulation does not entail suppressing emotions but rather monitoring, evaluating, and modifying emotional experiences in goal-directed ways (Ren et al., 2025). Given that women as heads of households face chronic stressors and multiple role demands, their capacity for adaptive cognitive-emotional regulation may be significantly compromised, placing them at heightened risk for emotional disorders (Choobforoushzadeh et al., 2025).

Another component that can be impaired among female-headed households is distress tolerance. Distress tolerance is considered one of the psychological variables that influence the evaluation and outcome of negative emotional experiences (Yıldız & Büyükfırat, 2025). This construct is defined as an individual's capacity to endure unpleasant mental and emotional states and encompasses the ability to withstand negative internal states such as painful emotions, ambiguity, uncertainty, hopelessness, and physical discomfort (Lopez et al., 2025). Distress tolerance is also defined as the subjective or objective ability to maintain resilience when facing harmful internal states and maladaptive external events (Lass et al., 2023). This capacity can influence various self-regulation

processes, including attention, cognitive appraisal, and the arousal of emotional or physical states, affecting their desirability (Del-Valle et al., 2024). Individuals with high distress tolerance use more effective strategies to manage negative feelings and emotions. This concept refers to the ability to handle real or perceived emotional distress and to navigate emotional events without escalating them (Milam & Judah, 2023). Conversely, individuals with low distress tolerance are often more affected by stressful situations and may resort to unhealthy or even destructive coping strategies to deal with these challenging feelings (Zaorska et al., 2023). Distress impairs a person's ability to effectively regulate emotions when faced with threatening and stressful challenges, which can lead to negative emotional experiences (McGonigal & Herres, 2025).

Another component that can be impaired in women as heads of households is quality of life. Quality of life is a multidimensional construct defined by the World Health Organization as individuals' perceptions of their position in life within the context of the culture and value systems in which they live and in relation to their goals, expectations, standards, and concerns (Liu et al., 2025). This concept encompasses physical health, psychological state, level of independence, social relationships, personal beliefs, and relationship to salient features of the environment (Karakolias & Iliopoulou, 2025). Unlike objective measures of life conditions, quality of life emphasizes the subjective appraisal of well-being and functioning across these domains (Skaramagkas et al., 2025). Psychological well-being, as a core component, includes emotional stability, self-esteem, and the absence of negative affective states (Ying & Yang, 2025). Social functioning refers to the quality of interpersonal relationships and perceived social support (Ladwig et al., 2025). For women heads of households, the convergence of financial strain, parenting burden, social stigma, and role overload can systematically undermine each of these domains (Jackson et al., 2000). Chronic stress depletes psychological resources, time poverty limits social connections, and economic insecurity undermines environmental control (Heriani et al., 2024).

Numerous interventions have been designed and implemented to reduce psychological problems and enhance emotional health among vulnerable populations. However, one intervention hypothesized in the present research to have a significant positive impact on cognitive-emotional regulation, distress tolerance and quality of life—in women as heads of households is schema therapy. Schema therapy, by identifying and modifying early maladaptive schemas and replacing dysfunctional coping strategies with healthier emotional and cognitive patterns, can increase these women's capacity to regulate negative emotions, improve their tolerance in facing chronic

stressors, and thereby enhance their quality of life across psychological, social, and physical domains (Sadri Damirchi et al., 2024). Schema therapy is an integrative approach developed by Young et al. (2006), combining elements from cognitive-behavioral, attachment, Gestalt, and psychoanalytic approaches (Young et al., 2006). This approach focuses on identifying and modifying early maladaptive schemas—pervasive, self-defeating emotional and cognitive patterns formed during childhood and adolescence and elaborated throughout an individual's lifetime (Choheili et al., 2026). These schemas, as the core of psychopathology, shape how subsequent experiences are processed and guide the individual's coping strategies (Tracy et al., 2025). Schema therapy employs three general strategies: cognitive techniques to challenge the validity of schemas, experiential techniques to access and heal schema-related emotions, and behavioral techniques to break dysfunctional coping patterns (Van Vreeswijk & Zedlitz, 2025). Researches shown that schema therapy—through restructuring these underlying patterns—can generate sustainable and fundamental improvements in their cognitive-emotional regulation (Hassas et al., 2024; Jafari goloche et al., 2024; Sobhani et al., 2023), Distress tolerance is enhanced, as the therapeutic process strengthens the capacity to withstand emotional distress without resorting to avoidance or dysfunctional behaviors. This is achieved through experiential techniques and cognitive restructuring that reframe perceived threats and increase psychological resilience (Fereydooni & Sheykhan, 2024; Moradpour & Bavi, 2025; Talary & bavi, 2023) and Quality of life is promoted, resulting from the cumulative effect of better emotional regulation and distress tolerance. Women experience improved daily functioning, more satisfying interpersonal relationships, and greater overall well-being, as early maladaptive schemas no longer dominate their perceptions and choices (Farokhtaj et al., 2025; Mansourzadeh et al., 2023; Turkzadeh et al., 2025). The growing population of women as heads of households in Iran has rendered this group one of the most vulnerable segments of society. These women, simultaneously multiple economic, parenting, and emotional roles in the absence of a partner, are exposed to chronic stress, emotional dysregulation, and diminished quality of life, with the prevalence of mood and anxiety disorders estimated as high as fifty percent. Despite this, targeted psychological interventions for this population remain strikingly limited. Schema therapy, by addressing early maladaptive schemas underlying emotional dysregulation, has demonstrated efficacy in treating mood and anxiety disorders. Given that women as heads of households frequently experience maladaptive

cognitive-emotional regulation strategies, low distress tolerance, and impaired quality of life, and no study to date has specifically examined the effectiveness of schema therapy in this population, the present research is an undeniable necessity for developing evidence-based interventions tailored to the unique needs of this group.

2. Materials and Methods

The present study was a quasi-experimental research with a pre-test-post-test design and a control group. The statistical population of this study included all women as heads of households with adolescent children in Ardabil city during the year 2025-2026. Among them, 30 women whose adolescent children were studying in Ardabil's schools and who were accessible were selected using convenience sampling. After providing informed consent, participants were randomly assigned to two groups of 15, experimental and control. The research instruments included the Cognitive Emotion Regulation Questionnaire (Garnefski et al., 2001), the Distress Tolerance Scale (Simons & Gaher, 2005), and the Quality of Life Questionnaire (Ware & Sherbourne, 1992), which were administered as a pre-test to both groups. The experimental group underwent schema therapy intervention (Young et al., 2003) for eight 90-minute sessions, while the control group received no intervention and remained on the waiting list until the end of the study. After completing the sessions, a post-test was administered to both groups. Inclusion criteria included: being the head of the household due to spouse death, divorce, or spouse disability; having at least a high school diploma; age range of 30 to 55 years; having an adolescent child aged 12 to 18 years; and no acute psychiatric disorders. Exclusion criteria included absence from more than two sessions, unwillingness to continue cooperation, and simultaneous participation in other psychological interventions. Collected data were analyzed using multivariate analysis of covariance (MANCOVA) with SPSS software version 27.

Instrument:

Cognitive Emotion Regulation Questionnaire (CERQ-18): This 18-item questionnaire was developed by Garnefski et al. (2001) to assess emotional regulation strategies. The tool includes two subscales for adaptive strategies (5 subscales) and maladaptive strategies (4 subscales). The subscales include self-blame (items 1 and 2), acceptance (items 3 and 4), rumination (items 5 and 6), positive refocusing (items 7 and 8), planning (items 9 and 10), positive reappraisal (items 11 and 12), perspective taking (items 13 and 14), catastrophizing (items 15 and 16), and other-blame (items 17 and 18). Scores for adaptive strategies are obtained by summing the scores from the subscales of perspective taking,

positive refocusing, positive reappraisal, acceptance, and planning, while scores for maladaptive strategies are obtained by summing the scores from the subscales of self-blame, other-blame, rumination, and catastrophizing (Garnefski et al., 2001). The questionnaire is scored on a 5-point Likert scale ranging from never (1) to always (5), with higher scores indicating better emotional regulation. The developers reported overall reliability coefficients of 0.87, with subscale reliabilities ranging from 0.73 to 0.88. In the study by (Ballabrera et al., 2024), Cronbach's alpha for the adaptive strategies subscale was 0.84, and for the maladaptive strategies subscale, it was 0.76. In the present study, Cronbach's alpha for the total scale was 0.88.

Distress Tolerance Scale (DTS): This tool is designed as a self-report Scale to measure emotional distress tolerance. It was developed by Simons and Gaher (2005). This scale consists of 15 questions and four subscales: emotional distress tolerance, being absorbed by negative emotions, subjective appraisal of distress, and regulation of efforts to reduce distress. The items of this scale are scored on a five-point Likert scale from strongly agree (1) to strongly disagree (5). High scores on this scale indicate high distress tolerance. Simons and Gaher (2005) reported the concurrent validity of the scale with the emotional distress scale to be 0.59. Cronbach's alpha coefficients for these subscales were 0.72, 0.82, 0.78, and 0.70, and for the total scale were estimated to be 0.82. Azizi (2010) reported the internal consistency index and correlation coefficients of the scale with problem-oriented and emotion-oriented

coping as 0.21 and -0.22, respectively, as convergent validity. They also reported the Cronbach's alpha value of this scale as 0.67 and its test-retest reliability over two months as 0.79. In the study by Parham et al. (2023), the reliability of this tool was calculated using the Cronbach's alpha method and reported as 0.82.

Quality of Life Questionnaire (SF-36): This questionnaire, developed by John Ware and colleagues in 1992, includes 36 items that assess eight health-related subscales across physical and mental domains: physical functioning, role physical, bodily pain, general health, vitality, social functioning, role emotional, and mental health. One item assesses changes in health. Each subscale contains 2 to 10 items, scored on a Likert scale from 0 to 100, with higher scores indicating better quality of life (Ware & Sherbourne, 1992). The reliability and validity of this questionnaire have been confirmed in the Iranian population (Rostami et al., 2016). The first validation study in Iran, conducted on 4,163 individuals aged 15 and above, reported reliability coefficients ranging from 0.77 to 0.95 for the eight dimensions, except for vitality (0.65). The findings indicated that the Iranian version of the SF-36 is a reliable and valid tool for measuring quality of life in the general population. Cronbach's alpha for the entire questionnaire was 0.80 (Montazeri et al., 2005).

Intervention: Schema therapy, developed by Young et al. (2003), is an integrative approach for identifying and modifying early maladaptive schemas. Table 1 presents a summary of the session content.

Table 1. Summary of Schema Therapy Sessions (Young et al., 2003)

Session	Objective	Content	Expected Behavioral Change	Homework
Session 1	Familiarizing participants with the nature of early maladaptive schemas	Implementation of schema assessment phase, explanation of instructions and general group rules	Initial familiarity with the concept of schemas and session structure	-
Session 2	Understanding developmental roots and mechanism of schema therapy	Teaching schema therapy, explaining the schema therapy model in simple and clear language	Learning schemas and how they are formed	Writing down schemas
Session 3	Teaching cognitive techniques and reasoning against schemas	Introduction, training, and application of cognitive techniques for challenging schemas (schema validity test, redefining evidence confirming the schema)	Learning cognitive techniques of schema therapy	Practicing techniques learned in session
Session 4	Continuing cognitive techniques training and utilizing logical thinking	Establishing dialogue between healthy and unhealthy schema aspects, applying logical thinking to challenge schemas, developing educational cards, completing schema recording forms	Challenging the nature of schemas	Practicing techniques learned in session
Session 5	Helping combat schemas at the emotional level	Introduction and training of emotional (experiential) techniques to access developmental roots of schemas	Using experiential techniques (mental imagery, establishing dialogue)	Writing down childhood distresses using imagery
Session 6	Gaining ability to combat schemas at the emotional level	Introduction and implementation of imaginary dialogues, traumatic event imagery, letter writing, and mental imagery for behavioral pattern-breaking	Using experiential techniques to express distress about childhood events	Writing down childhood distresses using imagery

Session	Objective	Content	Expected Behavioral Change	Homework
Session 7	Teaching adaptive coping styles	Training and implementation of behavioral pattern-breaking techniques, encouraging participants to abandon maladaptive coping styles, practicing effective coping behaviors (behavior change, motivation building, reviewing advantages and disadvantages of continuing behavior, practicing healthy behaviors)	Learning adaptive coping styles and avoiding maladaptive coping styles	Practicing learned skills in daily life
Session 8	Course conclusion	Reviewing concepts learned during previous 7 sessions, receiving feedback, and addressing remaining issues	Consolidating learning and final summary	Practicing learned skills in daily life

3. Results

In this study, 30 women as heads of households participated and were randomly assigned to two groups of 15 (experimental and control). Demographic findings indicated that mothers' ages ranged from 30 to 55 years, with a mean age of 42.3 years. Regarding educational level, 13 participants (43.3%) had a high school diploma, 10 participants (33.3%) held university degrees, and 7 participants (23.4%) had education below high school

diploma. Concerning the cause of household headship, 18 participants (60%) were heads of households due to spouse death, and 12 participants (40%) due to divorce. Additionally, 22 participants (73.3%) were supported by the Imam Khomeini Relief Committee, while 8 participants (26.7%) did not receive this support. Table 2 presents the descriptive statistics (means and standard deviations) for the two groups on the study variables.

Table 2. Mean and standard deviation of variables in various groups during pre-test and post-test phases

Variable	Stage	Experimental Group (Mean ± SD)	Control Group (Mean ± SD)
Adaptive Cognitive Strategies	Pre-test	30.98 ± 5.78	33.47 ± 6.03
	Post-test	39.14 ± 5.40	34.25 ± 6.08
Maladaptive Cognitive Strategies	Pre-test	21.77 ± 5.17	27.64 ± 5.78
	Post-test	14.78 ± 3.93	28.19 ± 5.56
Distress Tolerance	Pre-test	47.05 ± 6.19	48.00 ± 6.74
	Post-test	58.38 ± 5.84	48.06 ± 6.85
Quality of Life	Pre-test	60.77 ± 9.63	58.55 ± 9.40
	Post-test	73.26 ± 10.26	56.74 ± 8.31

Table 2 presents the descriptive statistics, including means and standard deviations of the research variables for both experimental and control groups at pre-test and post-test stages. The results indicate that at pre-test, both groups showed little difference in cognitive-emotional regulation strategies (adaptive and maladaptive), distress tolerance, and quality of life. At post-test, the experimental group demonstrated a significant increase in adaptive strategies, distress tolerance, and quality of life, along with a significant decrease in maladaptive strategies compared to the control group.

Prior to using parametric tests such as analysis of covariance, the assumptions of normality of score distributions and homogeneity of variances were examined. The Kolmogorov-Smirnov and Shapiro-Wilk tests indicated that the significance levels for all dependent variables - cognitive-emotional regulation strategies (adaptive and maladaptive), distress tolerance,

and quality of life - were greater than 0.05 in both pre-test and post-test stages, confirming normal distribution with 95% confidence. Levene's test yielded non-significant F values for all variables ($p > 0.05$), establishing homogeneity of variances and covariance matrices. Levene's test and Box's M test also indicated non-significance for all research variables. Thus, the assumption of variance homogeneity for the research variables was not rejected. With all assumptions satisfied, the use of multivariate and univariate analysis of covariance was justified. The primary hypothesis proposed that schema therapy is effective in improving cognitive-emotional regulation strategies, distress tolerance, and quality of life in women as heads of households. A multivariate analysis of variance (MANOVA) was conducted to examine the effectiveness of schema therapy on the dependent variables. The results of this analysis are presented in Table 3.

Table 3. Multivariate Analysis of Variance

Effect	Test	Value	F	Hypothesis df	Error df	Sig.	Partial Eta Squared
Group	Pillai's Trace	.786	22.927	4	25	.000	.786
	Wilks' Lambda	.214	22.927	4	25	.000	.786
	Hotelling's Trace	3.668	22.927	4	25	.000	.786
	Roy's Largest Root	3.668	22.927	4	25	.000	.786

Based on the data presented in Table 3, A multivariate analysis of variance (MANOVA) was conducted to examine the effect of schema therapy on the dependent variables including adaptive cognitive strategies, maladaptive cognitive strategies, distress tolerance, and quality of life. The results revealed a significant multivariate effect for group, Wilks' $\Lambda = .214$, $F(4, 25) = 22.927$, $p < .001$, partial $\eta^2 = .786$. This indicates that approximately 78.6% of the variance in the combined

dependent variables was explained by group membership. The findings demonstrate that schema therapy had a statistically significant and strong effect on improving cognitive-emotional regulation, distress tolerance, and quality of life in women as heads of households.

Additionally, Table 4 presents the results of the multivariate analysis of covariance (MANCOVA) for the effect of schema therapy on the dependent variables.

Table 4. Multivariate analysis of covariance test

Variables	Source	Sum of Squares	df	Mean Square	F	Sig.	Eta Coefficient
Adaptive Cognitive Strategies	Pre-test	802.951	1	802.951	200.055	.001	0.893
	Group	304.943	1	304.943	75.977	.001	0.760
	Error	96.328	24	4.014			
	Total	41509.972	30				
Inconsistent Cognitive Strategies	Pre-test	458.080	1	458.080	90.228	.001	0.790
	Group	400.618	1	400.618	78.909	.001	0.767
	Error	121.847	24	5.077			
	Total	15844.609	30				
Distress Tolerance	Pre-test	824.101	1	824.101	92.449	.001	0.794
	Group	510.301	1	510.301	57.247	.001	0.705
	Error	213.938	24	8.914			
	Total	86914.661	30				
Quality of Life	Pre-test	2055.798	1	2055.798	156.351	.001	0.867
	Group	1308.354	1	1308.354	99.505	.001	0.806
	Error	315.566	24	13.149			
	Total	131231.626	30				

Based on the data presented in Table 4, the results of multivariate analysis of covariance (MANCOVA) revealed significant differences between the experimental and control groups across all four dependent variables, including adaptive cognitive emotion regulation strategies, maladaptive cognitive emotion regulation strategies, distress tolerance, and quality of life. The F-values were 75.98 for adaptive strategies, 78.91 for maladaptive strategies, 57.25 for distress tolerance, and 99.51 for quality of life, all of which were significant at $p < .001$. These findings indicate that schema therapy had a significant impact on improving cognitive-emotional functioning and quality of life in women as heads of households. Accordingly, it can be concluded that the implementation of this protocol led to increased adaptive emotion regulation strategies, decreased maladaptive strategies, improved distress tolerance, and enhanced quality of life in this group of women. Furthermore, examination of effect sizes (η^2) showed that 76% of the variance in adaptive strategies, 77% of the variance in maladaptive strategies, 71% of the variance in distress tolerance, and 81% of the variance in quality of life were explained by the therapeutic intervention. From both statistical and clinical perspectives, these percentages indicate a strong effect of schema therapy in improving psychological well-being and reducing emotional dysregulation in women as heads of households. Therefore, the findings of this section

suggest that the application of schema therapy can serve as an effective and efficient intervention for this vulnerable population, particularly by improving underlying mechanisms such as maladaptive cognitive-emotion regulation strategies, low distress tolerance, and impaired quality of life.

4. Discussion and Conclusion

The present study was conducted with the aim of investigating the effectiveness of schema therapy on cognitive-emotional regulation, distress tolerance, and quality of life in women as heads of households. The first hypothesis of the present study demonstrated that schema therapy had a significant positive effect on improving cognitive emotion regulation in women as heads of households. This finding is consistent with the results of studies (Hassas et al., 2024; Jafari goloche et al., 2024; Sobhani et al., 2023). In explaining this finding, it can be asserted that schema therapy, by targeting early maladaptive schemas formed during childhood and adolescence, helps women as heads of households identify the developmental roots of their dysfunctional emotional and cognitive patterns. These schemas, which are often activated in the domains of abandonment, vulnerability, defectiveness and shame, subjugation, and self-sacrifice in this population, direct their information processing and coping strategies (Jafari goloche et al., 2024). Through cognitive techniques such as schema

validity testing, redefining evidence confirming schemas, and establishing dialogue between the healthy and unhealthy schema modes, schema therapy assists individuals in challenging the validity of their schemas. Furthermore, experiential techniques including mental imagery, imaginary dialogues, and letter writing enable individuals to access repressed emotions associated with traumatic childhood experiences and facilitate their healing. Additionally, behavioral techniques of schema therapy, by breaking maladaptive coping styles (such as avoidance, overcompensation, and surrender) and replacing them with healthy, adaptive behaviors, enhance individuals' capacity to manage negative emotions in stressful situations (Hassas et al., 2024). Women as heads of households, due to chronic exposure to financial pressures, multiple parenting responsibilities, lack of spousal support, and social stigma, are continuously confronted with negative emotions such as sadness, anger, anxiety, and hopelessness. These chronic stressors activate their maladaptive schemas and lead them toward employing maladaptive emotion regulation strategies including rumination, self-blame, other-blame, and catastrophizing. Schema therapy, by modifying underlying schemas and replacing them with adaptive strategies such as acceptance, positive reappraisal, refocusing on planning, and perspective-taking, teaches these women to process and express negative emotions adaptively rather than suppressing or avoiding them (Sobhani et al., 2023). Consequently, they develop greater capacity to identify, evaluate, and modulate their emotions when facing stressful events. In other words, schema therapy not only alleviates emotional symptoms but also restructures the underlying cognitive-emotional structures from which these symptoms originate. Therefore, the impact of this intervention on improving cognitive emotion regulation in women as heads of households is profound, sustainable, and reliable, as evidenced in the present study.

The second hypothesis of the present study demonstrated that schema therapy had a significant positive effect on distress tolerance in women as heads of households. This finding is consistent with the results of studies (Fereydooni & Sheykhani, 2024; Moradpour & Bavi, 2025; Talayry & bavi, 2023). In explaining this finding, it can be asserted that distress tolerance refers to an individual's capacity to endure negative emotional states and withstand unpleasant internal experiences such as pain, frustration, uncertainty, and emotional discomfort. Women as heads of households, due to chronic exposure to multiple stressors including financial strain, sole parenting responsibilities, social stigma, and lack of emotional support, often experience diminished distress tolerance, which manifests in impulsive behaviors,

avoidance, and emotional dysregulation (Fereydooni & Sheykhani, 2024; Moradpour & Bavi, 2025; Talayry & bavi, 2023). Schema therapy, through modifying early maladaptive schemas particularly in the domains of vulnerability to harm, emotional deprivation, and insufficient self-control, directly addresses the cognitive and emotional roots of low distress tolerance (Talayry & bavi, 2023). By employing experiential techniques such as imagery rescripting and dialogues with the schema mode, individuals learn to access and heal childhood memories associated with overwhelming distress and develop a more compassionate and resilient relationship with their emotional experiences. Furthermore, cognitive techniques help women challenge catastrophic interpretations of distress and replace them with more realistic and adaptive appraisals (Moradpour & Bavi, 2025). Behavioral pattern-breaking interventions, including graded exposure to distressing situations and practicing alternative coping responses, enable these women to gradually increase their capacity to tolerate discomfort without resorting to avoidance or escape (Fereydooni & Sheykhani, 2024). As a result, they develop greater confidence in their ability to withstand emotional challenges, leading to improved distress tolerance in daily life. Thus, schema therapy not only alleviates immediate emotional distress but also strengthens the foundational psychological capacity to withstand future adversities. The third hypothesis of the present study demonstrated that schema therapy had a significant positive effect on quality of life in women as heads of households. This finding is consistent with the results of studies by (Farokhtaj et al., 2025; Mansourzadeh et al., 2023; Turkzadeh et al., 2025). In explaining this finding, it can be asserted that quality of life is a multidimensional construct encompassing physical health, psychological well-being, social relationships, and environmental mastery. Women as heads of households, due to chronic exposure to financial pressure, role overload, social isolation, and emotional exhaustion, often experience significant impairments across all dimensions of quality of life. Schema therapy, by targeting early maladaptive schemas underlying psychological distress, indirectly and directly enhances various domains of quality of life (Mansourzadeh et al., 2023). Through cognitive restructuring, these women develop more realistic and compassionate appraisals of themselves, others, and their circumstances, reducing self-blame, shame, and feelings of inadequacy that undermine psychological well-being. Experiential techniques such as imagery rescripting and limited reparenting heal emotional wounds related to abandonment, mistrust, and deprivation, fostering a sense of security, self-worth, and emotional connection that extends into their current relationships with children and

significant others (Farokhtaj et al., 2025). Behavioral pattern-breaking interventions empower them to replace passive coping styles with assertive behaviors, seek social support, and engage in pleasurable activities, thereby enhancing social functioning and environmental mastery. As emotional dysregulation decreases and distress tolerance increases, these women experience improved physical health outcomes through reduced stress-related symptoms and better self-care (Turkzadeh et al., 2025). Furthermore, schema therapy enhances their parenting capacity, leading to more positive interactions with their adolescent children and improved family functioning, which contributes to overall life satisfaction. Consequently, the cumulative effect of schema therapy across cognitive, emotional, behavioral, and relational domains produces a comprehensive and sustainable improvement in quality of life.

The present study demonstrated that schema therapy has a significant and sustained effect on improving cognitive-emotional regulation, increasing distress tolerance, and enhancing quality of life in women as heads of households, and can be utilized as an effective and brief intervention in counseling centers and support organizations. However, this research faced limitations including small sample size, convenience sampling, geographical restriction to Ardabil city, and lack of long-term follow-up. Therefore, it is recommended that future studies be conducted with larger sample sizes, in other cities, and with six-month and one-year follow-up designs. Regarding practical recommendations: 1) Schema therapy protocol should be delivered through regular training courses by the Welfare Organization and the Imam Khomeini Relief Foundation for counselors and psychologists working in support centers for women as heads of households; 2) Schema therapy content should be developed in the form of self-help packages, psychoeducational booklets, and mobile applications to increase accessibility and reduce costs; 3) Early screening and identification of at-risk women as heads of households for maladaptive schemas should be conducted in health and social work centers, with preventive interventions provided for them; 4) Social welfare policymakers should prioritize financial and insurance coverage for schema-based therapies.

5. Ethical Considerations

Compliance with ethical guidelines

All ethical principles were observed in this study. Participants were informed about the purpose of the research and its implementation stages. They were assured of the confidentiality of their information, were free to withdraw from the study at any time, and were entitled to receive the research results upon request.

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Authors' contributions

All authors participated in the design, implementation, and writing of all sections of the present study.

Conflicts of interest

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