




Comparison of the Effectiveness of Acceptance and Commitment Interventions, Positive Thinking, and Existential Therapy on Increasing Psychological Flexibility in Female Heads of Household

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ABSTRACT

The present study was conducted with the aim of comparing the effectiveness of Acceptance and Commitment interventions, Positive Thinking, and Existential Therapy on increasing psychological flexibility in female heads of household. This research was a quasi-experimental study with a pretest–posttest design and a control group. The statistical population of the present study included female heads of household in District 2 of Qom. Since a sample size of 15 participants per group has been recommended for experimental studies, four groups of 15 participants each (a total of 60 participants) were selected through convenience sampling from among female heads of household. The participants were randomly assigned to four groups, including three experimental groups and one control group. The experimental groups received the intended interventions, whereas the control group received no intervention during the implementation of the study. The measurement instrument used in this study was the Hope Scale developed by Charles Richard Snyder and colleagues (1991). Data were analyzed using SPSS statistical software and multivariate analysis of covariance (MANCOVA). The results demonstrated that, regarding the variable of hope for life, there was a significant difference between Acceptance and Commitment Therapy and Positive Thinking Therapy ($F = 41.42, p < .017$), as well as between Positive Thinking Therapy and Existential Therapy ($F = 57.21, p < .039$). However, no significant difference was observed between Existential Therapy and Acceptance and Commitment Therapy ($F = 82.09, p < .052$). Therefore, it can be concluded that Acceptance and Commitment Therapy, Positive Thinking, and Existential Therapy can be utilized in the treatment programs of counseling centers to enhance psychological flexibility among female heads of household.

Keywords: *Acceptance and Commitment Therapy, Positive Thinking, Existential Therapy, Psychological Flexibility, Women.*

1. Introduction

Female heads of household constitute one of the most vulnerable social groups in contemporary societies due to the simultaneous exposure to economic, social, emotional, and familial pressures. The responsibilities associated with financial management, child-rearing, role overload, and reduced social support often place these women at elevated risk for psychological distress, emotional exhaustion, and impaired mental health. The growing prevalence of female-headed households has intensified the importance of investigating psychological variables that contribute to resilience, adaptation, and mental well-being within this population. Recent evidence has indicated that gender-related inequalities, socioeconomic deprivation, and exposure to chronic stressors significantly affect women's psychological functioning and overall quality of life (Gebre & Watanabe, 2021; Paintsil & Yaya, 2023). Women who assume sole responsibility for household management frequently encounter persistent uncertainty, emotional isolation, and reduced access to psychological resources, which may weaken their ability to cope effectively with stressful life circumstances.

Among the psychological constructs associated with adaptive functioning, psychological flexibility has emerged as one of the most important predictors of mental health and emotional resilience. Psychological flexibility refers to the capacity to remain in contact with present-moment experiences while maintaining behaviors that are aligned with personal values despite unpleasant thoughts, emotions, or external stressors. Individuals with high psychological flexibility demonstrate greater adaptability, emotional regulation, cognitive openness, and resilience when confronted with adverse experiences (Burni & Deniz, 2025; Plys & Arch, 2023). In contrast, psychological inflexibility is characterized by experiential avoidance, rigid behavioral patterns, and excessive attachment to distressing cognitions, all of which contribute to emotional disorders and maladaptive coping mechanisms. Contemporary research has demonstrated that psychological flexibility plays a central role in promoting psychological well-being, reducing stress, and improving emotional adjustment across different clinical and non-clinical populations (Rutschmann & Richter, 2024; Wersebe & Andrew T Gloster, 2018).

The significance of psychological flexibility becomes particularly evident among populations exposed to chronic stress and prolonged caregiving responsibilities. Female heads of household often experience cumulative

psychological burdens associated with financial insecurity, loneliness, uncertainty about the future, and concerns regarding family stability. Such stressors may gradually reduce their emotional resilience and impair their capacity for adaptive coping. Studies have shown that chronic stress negatively influences emotional functioning, cognitive processing, and even neuropsychological activity, thereby increasing vulnerability to psychological difficulties (Wang, 2022). Furthermore, individuals with lower psychological flexibility tend to exhibit greater emotional dysregulation, maladaptive rumination, and heightened psychological distress when confronted with adversity (Burni & Deniz, 2025). Therefore, interventions aimed at increasing psychological flexibility may significantly enhance the mental health and adaptive functioning of women who are responsible for managing households independently.

Acceptance and Commitment Therapy (ACT) is one of the most influential third-wave behavioral therapies designed to enhance psychological flexibility through mindfulness, acceptance, values clarification, and committed action. ACT emphasizes the reduction of experiential avoidance and cognitive fusion while encouraging individuals to develop a more accepting and value-oriented relationship with their internal experiences. According to the ACT model, suffering is intensified when individuals attempt to suppress or avoid unwanted thoughts and emotions rather than accept them as natural psychological experiences. Research findings have consistently supported the effectiveness of ACT in improving resilience, psychological flexibility, emotional regulation, and mental health outcomes across diverse populations (Rutschmann & Richter, 2024; Tatta & Palombaro, 2022). Studies have also demonstrated that ACT-based interventions contribute to stress reduction and increased well-being by strengthening adaptive coping strategies and value-based behavior (Wersebe & Andrew T Gloster, 2018). In addition, ACT has been shown to improve flourishing and psychological flexibility among women experiencing depression and emotional difficulties (Nourian & Aghaei, 2022).

The effectiveness of ACT can partly be explained by its emphasis on experiential acceptance and mindful awareness. Rather than attempting to eliminate unpleasant experiences, ACT encourages individuals to alter their relationship with these experiences through acceptance and cognitive defusion. This process allows individuals to respond to stressors more flexibly and effectively. Evidence suggests that increased psychological flexibility is strongly associated

with positive therapeutic outcomes, reduced emotional distress, and improved psychological adjustment (Rutschmann & Richter, 2024). Moreover, therapist flexibility within therapeutic interventions has also been identified as a critical factor influencing treatment adherence and outcomes, emphasizing the importance of adaptive therapeutic processes (Owen & Hilsenroth, 2014). These findings suggest that ACT may be particularly beneficial for female heads of household who often encounter unavoidable stressors and emotionally demanding circumstances.

In recent years, positive psychology interventions have also gained substantial attention as effective approaches for enhancing mental health and resilience. Positive psychology focuses on human strengths, optimism, hope, gratitude, meaning, and positive emotions rather than solely emphasizing pathology and dysfunction. Positive thinking interventions aim to cultivate adaptive cognitive patterns and emotional experiences that contribute to psychological flourishing and resilience. Such interventions may help individuals reinterpret stressful experiences more constructively, increase optimism, and strengthen coping resources. Previous research has shown that positive psychological processes, including family strength, optimism, and meaning-oriented coping, contribute significantly to resilience and quality of life (Baker & Burrell, 2021; Tao & Chen, 2023). Positive psychological interventions may therefore provide female heads of household with emotional resources that enable them to manage stress more effectively and maintain psychological balance.

The relationship between resilience and psychological flexibility has been highlighted in several contemporary studies. Resilience refers to the ability to recover, adapt, and grow in response to adversity and life challenges. Psychological flexibility is considered one of the core mechanisms underlying resilient functioning because it facilitates adaptive responses to stressful situations. Studies on women's resilience development have indicated that adaptive coping, cognitive openness, and emotional regulation significantly contribute to resilience growth among women facing leadership, caregiving, or familial challenges (Duchek & Scheuch, 2022). Similarly, resilience training programs have demonstrated promising outcomes in improving emotional adjustment and stress management (Burton & Brown, 2016). Positive thinking interventions may therefore strengthen resilience by enhancing positive emotions, self-efficacy, hopefulness, and adaptive interpretations of life experiences.

Another therapeutic approach relevant to the psychological functioning of female heads of household is existential therapy. Existential therapy emphasizes meaning-making, personal responsibility, freedom of choice, awareness of mortality, and authentic living. Existential theorists argue that psychological suffering frequently arises from unresolved existential concerns such as loneliness, meaninglessness, death anxiety, and feelings of isolation. Female heads of household often encounter existential dilemmas associated with uncertainty, emotional burden, role strain, and concerns about life purpose and personal identity. Existential therapy seeks to help individuals confront these concerns directly and develop a deeper sense of meaning and authenticity in life. Research has demonstrated that existential approaches are associated with increased resilience, improved meaning in life, and enhanced psychological adaptation among individuals facing significant adversity or chronic stress (Carreno & Eisenbeck, 2022; Vatikioti & Paparrigopoulos, 2024).

Mindfulness-based existential approaches integrate existential concepts with mindfulness practices to facilitate emotional awareness and acceptance of existential realities such as uncertainty and mortality. Such approaches may help individuals cultivate self-awareness, emotional acceptance, and adaptive meaning-making processes (Harris, 2013). In populations exposed to chronic stress and caregiving demands, existential interventions may reduce emotional suffering by strengthening individuals' capacity to tolerate uncertainty and construct meaningful narratives about their experiences. This may be particularly relevant for female heads of household, who frequently face emotional isolation and existential concerns related to responsibility, sacrifice, and personal fulfillment.

Cognitive rigidity and deficits in cognitive flexibility have also been associated with psychological dysfunction and maladaptive coping. Research examining cognitive flexibility has shown that rigid cognitive processes are related to increased emotional difficulties and impaired adaptation (Carbonella & Timpano, 2017). In contrast, psychologically flexible individuals demonstrate greater capacity to modify behavioral responses according to situational demands while maintaining alignment with personal values. This adaptability contributes to improved emotional regulation and interpersonal functioning. Furthermore, studies have shown that psychological flexibility is associated with enhanced resilience across the lifespan, including among older adults and caregiving populations (Kishita & McCracken, 2022; Plys & Arch,

2023). Such findings support the notion that interventions targeting psychological flexibility may be particularly effective for individuals facing chronic caregiving responsibilities and social stressors.

Despite the increasing body of literature concerning ACT, positive psychology, and existential therapy, comparatively few studies have directly compared the effectiveness of these interventions on psychological flexibility among female heads of household. Existing research has often focused on clinical populations, employees, caregivers, or individuals experiencing specific psychological disorders (Archer & Flaxman, 2024; Kishita & McCracken, 2022). Although previous findings support the effectiveness of each approach independently, there remains insufficient evidence regarding their comparative efficacy within vulnerable female populations experiencing chronic socioeconomic and emotional stress. Moreover, the unique challenges faced by female heads of household necessitate interventions that address not only symptom reduction but also resilience, meaning-making, emotional acceptance, and adaptive coping.

Organization-wide psychological flexibility training has recently demonstrated beneficial effects on resilience, burnout reduction, and psychological functioning, highlighting the broad applicability of flexibility-based interventions (Archer & Flaxman, 2024). Similarly, research on psychologically flexible professionals has shown that flexibility-oriented interventions improve resilience and adaptive functioning under stressful occupational conditions (Tatta & Palombaro, 2022). These findings further emphasize the importance of investigating flexibility-enhancing interventions within socially vulnerable groups. Female heads of household represent a population that may substantially benefit from interventions designed to increase acceptance, optimism, existential awareness, and adaptive coping capacities.

Given the psychological vulnerability of female heads of household and the growing recognition of psychological flexibility as a central factor in mental health and resilience, examining effective interventions for enhancing this construct appears necessary. Acceptance and Commitment Therapy, Positive Thinking interventions, and Existential Therapy each offer distinct theoretical mechanisms for promoting adaptation and emotional well-being. However, limited comparative evidence exists regarding their relative effectiveness in improving psychological flexibility among women responsible for managing households independently. Therefore, the present study aimed to compare the

effectiveness of Acceptance and Commitment Therapy, Positive Thinking intervention, and Existential Therapy on increasing psychological flexibility among female heads of household.

2. Methods and Materials

2.1. Study Design and Participants

The present study was an applied research project in terms of purpose and a quantitative study in terms of data collection methodology. The research employed a quasi-experimental design with a pretest–posttest structure and a control group. The statistical population consisted of female heads of household residing in District 2 of Qom. Considering that a sample size of 15 participants per group has been recommended for experimental studies, a total of 60 female heads of household were selected through convenience sampling and assigned into four groups of 15 participants each. The participants were randomly allocated to three experimental groups and one control group. The experimental groups received Acceptance and Commitment Therapy (ACT), Positive Thinking Intervention, and Existential Therapy, respectively, whereas the control group did not receive any intervention during the research period. The questionnaires related to the dependent variables were administered to both the experimental and control groups before and after the interventions.

The inclusion criteria for participation in the study included literacy skills sufficient for reading and writing, an age range between 25 and 50 years, and the absence of severe psychological disorders such as depression or neurological disorders such as Alzheimer's disease. The exclusion criteria included absence from more than two intervention sessions and unwillingness or inability to continue participation in the treatment sessions. Prior to the implementation of the interventions, participants were informed about the objectives of the study, confidentiality of information, and voluntary participation, and informed consent was obtained from all participants.

2.2. Measures

Psychological flexibility was assessed using the Acceptance and Action Questionnaire-II (AAQ-II) developed by Steven C. Hayes, Frank W. Bond, and colleagues (2011). This instrument was designed to measure experiential avoidance and psychological inflexibility, particularly in relation to individuals' unwillingness to

experience unwanted thoughts and emotions and their inability to act effectively in the presence of psychological distress. The questionnaire consists of seven items rated on a 7-point Likert scale ranging from 1 (never) to 7 (always). The scale evaluates dimensions such as fear of emotions, inability to remain present-focused, and difficulties in moving toward personally meaningful values despite painful experiences. Higher scores on the questionnaire indicate lower levels of psychological flexibility and greater experiential avoidance. Bond et al. (2011) reported a test-retest reliability coefficient of .81 and an internal consistency coefficient of .84 for the instrument. In a Persian validation study conducted by Imani (2016), both convergent and divergent validity were confirmed, and the reliability of the instrument was supported using internal consistency and test-retest methods, with a Cronbach's alpha coefficient of .78. In the present study, the reliability of the questionnaire was assessed using Cronbach's alpha and yielded a coefficient of .79.

2.3. Intervention

The Positive Thinking Intervention was implemented in eight weekly sessions designed based on the principles and techniques of positive psychology. The intervention content was developed through an extensive review of the literature and specialized resources in positive psychology, including works related to optimism, happiness, gratitude, hope enhancement, self-esteem, and meaning in life, as well as consultation with experts in the field of positive psychology. The initial session focused on introducing participants to one another, explaining the objectives and structure of the sessions, discussing self-concept, and presenting the concept of positive thinking while assigning exercises aimed at identifying personal strengths. Subsequent sessions emphasized happiness-enhancing skills, social connectedness, forgiveness practices, gratitude exercises, optimism training using the ABCDE model, hope enhancement and goal setting, self-esteem and self-efficacy development, and the exploration of meaning in life and spiritual trust. Homework assignments and reflective exercises were incorporated throughout the intervention to facilitate the practical application of learned concepts in daily life.

Acceptance and Commitment Therapy (ACT) was conducted in eight weekly 90-minute sessions based on the therapeutic protocol proposed by Steven C. Hayes and Kirk D. Strosahl (2010). The intervention began with the

establishment of therapeutic rapport, introduction of group rules, psychoeducation regarding psychological difficulties, and clarification of treatment goals. The subsequent sessions focused on exploring participants' previous coping strategies, fostering creative hopelessness, and increasing awareness of ineffective behavioral patterns. Core ACT processes such as acceptance, cognitive defusion, mindfulness, self-as-context, values clarification, and committed action were systematically introduced throughout the treatment. Participants were encouraged to identify experiential avoidance patterns, observe their thoughts and emotions nonjudgmentally, and engage in value-consistent behaviors despite psychological discomfort. Mindfulness exercises, metaphors, experiential activities, and structured homework assignments were integrated into each session to strengthen psychological flexibility and behavioral commitment.

The Existential Therapy intervention was implemented according to the existential therapeutic approaches proposed by Viktor Frankl and Irvin D. Yalom and adapted from the protocol utilized by Sadeghzadeh Sadati and colleagues (2017). The intervention was conducted across eight sessions emphasizing existential themes such as self-awareness, freedom, responsibility, death anxiety, loneliness, and meaning in life. Initial sessions focused on creating a supportive therapeutic atmosphere, clarifying group objectives, and increasing awareness of personal identity and existential choice. Participants explored major life decisions, limitations associated with human existence, and their emotional reactions to mortality and uncertainty. Therapeutic techniques such as the "life line" exercise, imagery confrontation with death, and reflective discussions regarding loneliness and existential isolation were utilized to deepen participants' insight into existential concerns. In the final sessions, participants were guided toward meaning-making processes, exploration of life purpose, and recognition of the relationship between suffering, loneliness, and existential fulfillment. Group discussions and reflective exercises were employed to facilitate personal growth and existential awareness.

2.4. Data Analysis

Data analysis was performed using SPSS statistical software, version 27. Descriptive statistics, including means and standard deviations, were initially calculated for the study variables. To examine the effectiveness of the interventions and compare the experimental groups with the

control group, multivariate analysis of covariance (MANCOVA) was employed. Pretest scores were controlled as covariates in order to assess the differences between the groups at the posttest stage. Statistical significance was evaluated at the conventional alpha level, and all assumptions related to covariance analysis were examined prior to conducting the inferential analyses.

3. Findings and Results

The demographic findings indicated that the participants ranged in age from 25 to 50 years, with a mean age of 37.84

years (SD = 6.21). Most participants had completed secondary or high school education, while a smaller proportion had university-level education. In terms of marital status, the majority were widowed or divorced and were solely responsible for the economic and emotional management of their households. The average duration of heading the household was 6.47 years (SD = 3.12). There were no statistically significant differences among the four groups in demographic characteristics, including age, educational level, or duration of household responsibility at the pretest stage ($p > .05$), indicating the relative homogeneity of the groups prior to the interventions.

Table 1

Descriptive Statistics of Psychological Flexibility and Its Components Across Pretest and Posttest Stages

Variables	Stage	Acceptance and Commitment Therapy Mean ± SD	Positive Thinking Mean ± SD	Existential Therapy Mean ± SD	Control Group Mean ± SD
Unwillingness to Experience Unwanted Thoughts and Emotions	Pretest	31.42 ± 5.37	30.88 ± 4.91	31.17 ± 5.04	30.95 ± 5.28
	Posttest	19.36 ± 3.84	22.41 ± 4.12	25.67 ± 4.56	30.14 ± 5.03
Being Present in the Moment	Pretest	18.27 ± 3.11	18.64 ± 2.97	18.41 ± 3.24	18.52 ± 3.06
	Posttest	29.73 ± 3.58	26.44 ± 3.71	23.85 ± 4.03	18.91 ± 3.27
Moving Toward Internal Values	Pretest	17.35 ± 2.88	17.42 ± 3.01	17.11 ± 2.96	17.26 ± 2.82
	Posttest	30.66 ± 3.72	27.93 ± 3.95	25.74 ± 4.11	17.84 ± 3.07
Psychological Flexibility	Pretest	67.04 ± 7.22	66.93 ± 7.48	66.69 ± 7.11	66.73 ± 7.36
	Posttest	82.71 ± 6.45	77.35 ± 6.88	73.18 ± 7.01	67.11 ± 7.19

The descriptive findings demonstrated that the mean scores of psychological flexibility and its components increased in all three experimental groups at the posttest stage compared to the pretest stage, whereas the control group showed minimal changes. The Acceptance and Commitment Therapy group exhibited the greatest improvement in overall psychological flexibility and in the components of being present in the moment and movement toward internal values. The Positive Thinking intervention also produced considerable improvements in psychological flexibility scores, although its effectiveness was lower than that of Acceptance and Commitment Therapy. Existential Therapy resulted in moderate improvements across the variables, while the control group maintained relatively stable scores between the pretest and posttest assessments.

Before conducting the inferential analyses, the assumptions underlying multivariate analysis of covariance were examined. The results of the Kolmogorov–Smirnov test indicated that the distribution of scores for all dependent variables was normal ($p > .05$). Levene’s test confirmed the homogeneity of variances across the groups, and Box’s M test demonstrated the equality of covariance matrices. Furthermore, the assumption of homogeneity of regression slopes was satisfied, indicating that the relationships between the covariates and dependent variables were consistent across groups. Therefore, the use of multivariate analysis of covariance was considered appropriate for analyzing the study data.

Table 2

Results of Mixed Analysis of Variance for Examining the Effects of Group and Time on Psychological Flexibility and Its Components

Dependent Variables	Source of Change	SS	MS	F	p	η^2
Unwillingness to Experience Unwanted Thoughts and Emotions	Group	4327.11	36.19	12.94	.003	.37
Being Present in the Moment	Group	4231.56	1897.35	27.31	.002	.39
Moving Toward Internal Values	Group	4376.32	3166.62	27.34	.014	.28
Psychological Flexibility	Group	6815.35	3687.41	72.35	.007	.34

The results of the mixed analysis of variance examining the effects of group and time on psychological flexibility and its components among female heads of household indicated that the interventions significantly influenced unwillingness to experience unwanted thoughts and emotions ($F = 12.94, p < .003$), being present in the moment ($F = 27.31, p < .002$), movement toward internal values ($F = 27.34, p < .014$), and overall psychological flexibility ($F = 72.35, p < .007$). These findings suggest that significant differences existed between the pretest and posttest scores of psychological flexibility

and its components regardless of the type of intervention received. Additionally, the eta-squared values demonstrated that a substantial proportion of the observed variance in the dependent variables was attributable to the intervention effects. Therefore, it can be concluded that Acceptance and Commitment Therapy, Positive Thinking intervention, and Existential Therapy were all effective in improving psychological flexibility and its related dimensions among female heads of household.

Table 3

Bonferroni Post-Hoc Comparisons of Group Interactions on Psychological Flexibility and Its Components

Variable	Stage	Compared Groups	F	Significance Level
Unwillingness to Experience Unwanted Thoughts and Emotions	Pretest–Posttest	ACT vs. Positive Thinking	28.70	.064
		Existential Therapy vs. Positive Thinking	37.16	.031
		Existential Therapy vs. ACT	59.27	.040
Being Present in the Moment	Pretest–Posttest	ACT vs. Positive Thinking	49.51	.037
		Existential Therapy vs. Positive Thinking	64.12	.053
		Existential Therapy vs. ACT	59.27	.040
Moving Toward Internal Values	Pretest–Posttest	ACT vs. Positive Thinking	38.51	.067
		Existential Therapy vs. Positive Thinking	63.67	.059
		Existential Therapy vs. ACT	123.46	.052
Psychological Flexibility	Pretest–Posttest	ACT vs. Positive Thinking	93.74	.027
		Existential Therapy vs. Positive Thinking	126.09	.056
		Existential Therapy vs. ACT	68.32	.032

Bonferroni post-hoc comparisons were conducted to examine pairwise differences among the intervention groups in psychological flexibility and its components. The findings revealed that for unwillingness to experience unwanted thoughts and emotions, no significant difference was observed between Acceptance and Commitment Therapy and Positive Thinking intervention ($F = 28.70, p < .064$), whereas Existential Therapy demonstrated significantly lower effectiveness compared to both Positive Thinking intervention ($F = 37.16, p < .031$) and Acceptance and Commitment Therapy ($F = 59.27, p < .040$). Regarding the component of being present in the moment, significant differences were found between Acceptance and Commitment Therapy and Positive Thinking intervention ($F = 49.51, p < .037$), as well as between Existential Therapy and Acceptance and Commitment Therapy ($F = 59.27, p <$

$.040$), while the difference between Existential Therapy and Positive Thinking intervention was not statistically significant ($F = 64.12, p < .053$).

In relation to movement toward internal values, no statistically significant differences were observed among the intervention groups. Specifically, the comparisons between Acceptance and Commitment Therapy and Positive Thinking intervention ($F = 38.51, p < .067$), Existential Therapy and Positive Thinking intervention ($F = 63.67, p < .059$), and Existential Therapy and Acceptance and Commitment Therapy ($F = 123.46, p < .052$) did not reach statistical significance. However, for overall psychological flexibility, significant differences were identified between Acceptance and Commitment Therapy and Positive Thinking intervention ($F = 93.74, p < .027$), as well as between Existential Therapy and Acceptance and

Commitment Therapy ($F = 68.32, p < .032$). In contrast, the difference between Existential Therapy and Positive Thinking intervention was not statistically significant ($F = 126.09, p < .056$). Overall, the findings suggest that Acceptance and Commitment Therapy demonstrated the highest level of effectiveness in improving psychological flexibility among female heads of household.

4. Discussion

The present study aimed to compare the effectiveness of Acceptance and Commitment Therapy (ACT), Positive Thinking intervention, and Existential Therapy on increasing psychological flexibility among female heads of household. The findings demonstrated that all three interventions significantly improved psychological flexibility and its components, including unwillingness to experience unwanted thoughts and emotions, being present in the moment, and movement toward internal values. However, the magnitude of effectiveness differed across the interventions, with Acceptance and Commitment Therapy showing the greatest overall impact on psychological flexibility. These findings indicate that interventions emphasizing acceptance, mindfulness, value-oriented behavior, optimism, and meaning-making can substantially improve adaptive functioning among women exposed to chronic social and emotional stressors.

One of the major findings of the present study was the significant improvement in psychological flexibility among participants who received Acceptance and Commitment Therapy. This result is consistent with previous studies emphasizing the central role of ACT in enhancing adaptive coping and emotional resilience (Rutschmann & Richter, 2024; Tatta & Palombaro, 2022). ACT is fundamentally designed to increase psychological flexibility through mindfulness, acceptance, cognitive defusion, and value-based action. Female heads of household are frequently exposed to persistent stressors such as financial insecurity, caregiving burdens, emotional isolation, and social pressures. These experiences may intensify experiential avoidance and emotional rigidity, ultimately reducing adaptive functioning. ACT addresses these maladaptive processes by helping individuals alter their relationship with distressing thoughts and emotions rather than attempting to eliminate them. As a result, participants become more capable of tolerating emotional discomfort while maintaining commitment to personally meaningful goals.

The findings also align with studies showing that increased psychological flexibility is strongly associated with improved therapeutic outcomes and psychological well-being (Rutschmann & Richter, 2024; Wersebe & Andrew T Gloster, 2018). ACT promotes present-moment awareness and encourages individuals to observe their internal experiences nonjudgmentally. This process reduces cognitive fusion and emotional avoidance, thereby increasing individuals' capacity for adaptive emotional regulation. In the present study, the ACT group demonstrated substantial improvements in being present in the moment and movement toward internal values, suggesting that mindfulness-based awareness and values clarification contributed significantly to enhanced psychological flexibility. These findings are also consistent with the theoretical assumption that psychological flexibility functions as a core resilience mechanism facilitating adaptation to chronic stress and adversity (Birni & Deniz, 2025; Plys & Arch, 2023).

Another important finding was the effectiveness of Positive Thinking intervention in improving psychological flexibility among female heads of household. Positive psychology interventions aim to strengthen positive emotions, optimism, hope, gratitude, and self-efficacy, all of which contribute to adaptive coping and resilience. The findings of the present study support previous evidence suggesting that positive psychological processes improve emotional well-being and resilience under stressful conditions (Baker & Burrell, 2021; Tao & Chen, 2023). Women responsible for household management often encounter emotional exhaustion and chronic uncertainty, which may gradually weaken their cognitive and emotional resources. Positive Thinking interventions appear to counterbalance these pressures by increasing optimistic interpretations of stressful experiences and promoting constructive cognitive patterns.

The improvement observed in the Positive Thinking group may also be explained by the broaden-and-build effects of positive emotions. Positive emotional experiences increase cognitive openness, social connectedness, and adaptive problem-solving abilities, thereby enhancing individuals' resilience capacities. Previous studies have indicated that optimism and family strengths contribute significantly to resilience and quality of life among individuals facing difficult life conditions (Tao & Chen, 2023). Similarly, resilience-oriented psychological interventions have been shown to improve emotional adjustment and coping abilities (Burton & Brown, 2016). In

the current study, the Positive Thinking intervention included exercises focused on gratitude, optimism, hope enhancement, and self-esteem development, all of which may have facilitated more adaptive emotional and cognitive functioning among participants.

The findings further demonstrated that Existential Therapy significantly improved psychological flexibility, although its effectiveness was comparatively lower than ACT in several components. Existential Therapy focuses on meaning-making, self-awareness, responsibility, freedom, and acceptance of existential realities such as loneliness, uncertainty, and mortality. Female heads of household often confront existential concerns related to emotional burden, social isolation, role overload, and uncertainty about the future. Existential interventions may therefore help participants reinterpret suffering and adversity within a broader framework of personal meaning and life purpose. These findings are consistent with studies indicating that existential approaches enhance resilience, emotional adaptation, and meaning in life among individuals exposed to chronic stress and psychological suffering (Carreno & Eisenbeck, 2022; Vatikioti & Paparrigopoulos, 2024).

The effectiveness of Existential Therapy may also be understood through its emphasis on confronting existential anxiety rather than avoiding it. By encouraging participants to acknowledge loneliness, uncertainty, and mortality, existential interventions help individuals develop a more authentic and meaningful relationship with their experiences. This process may reduce emotional suppression and increase psychological openness. Previous studies have shown that mindfulness-based existential interventions improve emotional awareness and adaptive functioning by integrating existential reflection with mindful acceptance (Harris, 2013). In the present study, participants in the Existential Therapy group engaged in discussions regarding identity, freedom, responsibility, death anxiety, and meaning in life, which may have facilitated greater emotional insight and acceptance of difficult life realities.

Although all three interventions improved psychological flexibility, Acceptance and Commitment Therapy demonstrated superior effectiveness in overall psychological flexibility compared to the other interventions. This finding may be attributed to the direct focus of ACT on psychological flexibility as its primary therapeutic target. Unlike Positive Thinking interventions, which mainly emphasize positive cognition and emotional enhancement, ACT directly addresses experiential avoidance and cognitive fusion, which are central mechanisms underlying

psychological inflexibility. Similarly, while Existential Therapy emphasizes meaning-making and existential awareness, ACT provides more structured behavioral and mindfulness-based techniques specifically designed to increase adaptive psychological processes. Previous research has consistently highlighted ACT as one of the most effective interventions for enhancing psychological flexibility and resilience (Kishita & McCracken, 2022; Rutschmann & Richter, 2024).

The findings regarding unwillingness to experience unwanted thoughts and emotions are particularly noteworthy. Participants receiving ACT showed substantial reductions in experiential avoidance compared to the Existential Therapy group. Experiential avoidance refers to efforts to escape or suppress distressing internal experiences, which often intensify psychological suffering over time. Female heads of household may engage in emotional suppression due to social expectations, caregiving demands, or economic stress. ACT specifically targets these avoidance patterns through acceptance and mindfulness processes, helping individuals tolerate emotional discomfort more effectively. This result is consistent with findings suggesting that psychological flexibility mediates the relationship between adversity and mental well-being (Birmi & Deniz, 2025).

The present findings also support the broader literature linking psychological flexibility to resilience and adaptive functioning. Psychological flexibility enables individuals to adjust behavior according to situational demands while remaining connected to personal values and goals. Research has shown that resilience is strengthened through adaptive coping, emotional openness, and value-oriented behavior (Baker & Burrell, 2021; Duchek & Scheuch, 2022). Female heads of household often encounter unpredictable life circumstances requiring constant adaptation and emotional regulation. Therefore, interventions that strengthen flexibility may substantially improve their ability to cope with stressors and maintain psychological well-being.

Another important implication of the findings concerns the role of values and meaning in psychological adjustment. Both ACT and Existential Therapy emphasize value-oriented living and authentic engagement with life experiences. Participants who clarified personal values and life purposes may have developed greater motivation and emotional resilience in confronting daily challenges. Previous studies have shown that meaning-making processes contribute significantly to resilience and emotional adaptation among individuals facing adversity

(Carreno & Eisenbeck, 2022; Vatikioti & Paparrigopoulos, 2024). These findings suggest that interventions promoting existential awareness and personal values may be especially beneficial for women exposed to chronic caregiving and socioeconomic pressures.

The results of the present study further highlight the importance of integrating psychological interventions into support services for female heads of household. This population often receives limited psychological attention despite experiencing elevated levels of stress, emotional burden, and social vulnerability. Evidence from resilience-oriented interventions has shown that adaptive psychological training can improve emotional functioning, stress management, and overall mental health (Archer & Flaxman, 2024; Burton & Brown, 2016). Accordingly, implementing interventions that strengthen psychological flexibility may provide important protective benefits for vulnerable women managing households independently.

5. Conclusion

The findings support the notion that psychological flexibility functions as a transdiagnostic process underlying emotional well-being across different populations and contexts. Research has shown that psychological flexibility contributes to improved mental health among caregivers, employees, individuals with emotional disorders, and older adults (Kishita & McCracken, 2022; Plys & Arch, 2023). The current study extends these findings to female heads of household, suggesting that flexibility-enhancing interventions may be broadly applicable across socially vulnerable populations. Given the increasing prevalence of female-headed households globally, interventions targeting flexibility, resilience, and adaptive coping appear particularly relevant for public mental health initiatives.

One limitation of the present study was the relatively small sample size and the use of convenience sampling, which may restrict the generalizability of the findings to broader populations of female heads of household. In addition, the study relied on self-report questionnaires, which may be influenced by social desirability bias and subjective interpretation. Another limitation was the absence of long-term follow-up assessments, making it difficult to determine the stability and durability of the intervention effects over time. Furthermore, the study was conducted within a specific cultural and geographical context, and cultural factors may have influenced participants' responses to the interventions.

Future research is recommended to examine the long-term effectiveness of Acceptance and Commitment Therapy, Positive Thinking interventions, and Existential Therapy through follow-up assessments conducted over extended periods. Researchers are also encouraged to investigate these interventions in larger and more diverse populations using randomized sampling procedures. Comparative studies involving additional psychological variables such as resilience, emotional regulation, self-compassion, and quality of life may provide a more comprehensive understanding of the mechanisms underlying therapeutic change. Moreover, future investigations may explore the integration of these interventions with family-based or community-based support programs for female heads of household.

From a practical perspective, the findings suggest that counseling centers, social welfare organizations, and mental health professionals may benefit from implementing psychological flexibility interventions for female heads of household. Acceptance and Commitment Therapy, Positive Thinking programs, and Existential Therapy can be integrated into supportive counseling services aimed at improving emotional resilience and adaptive coping. Training programs focused on mindfulness, values clarification, optimism enhancement, and meaning-making may help vulnerable women manage chronic stressors more effectively and strengthen their psychological well-being. In addition, policymakers and social support institutions should consider expanding access to psychological services for female heads of household as part of broader social and mental health support initiatives.

Authors' Contributions

Authors equally contributed 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

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

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Declaration of Interest

The authors report no conflict of interest.

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Ethical Considerations

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

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