

# Effectiveness of Group Training Based on Choice Theory on Family Functioning and Responsibility in Married Women

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### ABSTRACT

**Objective:** The present study aimed to examine the effectiveness of group training based on Choice Theory on family functioning and responsibility among married women aged 40 to 55 years in District Three of Tehran in the year 2024.

**Methods and Materials:** This research employed a quasi-experimental design using a pretest–posttest control group with a two-month follow-up phase. The statistical population consisted of married women aged 40 to 55 years residing in District Three of Tehran in 2024. From this population, 100 participants were selected through convenience sampling and completed the research instruments, including the California Psychological Inventory Responsibility Scale (1987) and the McMaster Family Assessment Device developed by Epstein et al. (1980). Participants whose scores on family functioning and responsibility were below the sample mean were identified, and 48 of them were purposively selected and randomly assigned into two equal groups: an experimental group and a control group. Both groups completed the pretest simultaneously. The experimental group then received group training based on Glasser's Choice Theory (2001) in eight weekly sessions, each lasting 120 minutes, while the control group received no intervention. Four days after completion of the sessions, both groups completed the posttest simultaneously. Two months later, follow-up assessments of the dependent variables were administered to the experimental group. The collected data were analyzed using repeated measures analysis of variance, Bonferroni post-hoc tests, and SPSS version 23.

**Findings:** The results indicated that group training based on Choice Theory significantly improved family functioning and responsibility among married women at the posttest stage. Moreover, a significant difference between the experimental and control groups was observed at the follow-up phase, indicating that the experimental group maintained superior scores in both family functioning and responsibility ( $p < 0.01$ ).

**Conclusion:** Based on these findings, it can be concluded that the principles of Choice Theory can be effectively applied to enhance family functioning and responsibility among married women.

**Keywords:** Choice Theory–based group training, family functioning, responsibility, married women.

## 1. Introduction

Family functioning is widely recognized as a central determinant of individual well-being, marital stability, psychological health, and social development across the lifespan. Contemporary family psychology conceptualizes the family as a dynamic system in which patterns of communication, emotional responsiveness, role distribution, and behavioral regulation jointly shape the psychological climate of the household and influence the adaptive capacities of its members (Dai & Wang, 2015). Empirical evidence consistently demonstrates that higher levels of healthy family functioning are associated with improved emotional regulation, lower psychological distress, enhanced marital satisfaction, and stronger resilience among family members (Aboui et al., 2024; Westrupp et al., 2023). Conversely, dysfunctional family processes—characterized by impaired communication, weak emotional bonds, and poor problem-solving—are strongly linked to anxiety, depression, interpersonal conflict, and compromised social functioning (Shao et al., 2020; Wallace, 2015).

Within the family system, women often occupy a pivotal regulatory role in maintaining relational balance, managing emotional exchanges, and coordinating daily responsibilities. Research indicates that women's psychological functioning, perceived responsibility, and coping strategies significantly influence overall family adjustment and marital stability (Aboui et al., 2024; Shaleh & Nuraini, 2021). Responsibility, defined as an individual's commitment to purposeful behavior, accountability for choices, and proactive engagement with life demands, is increasingly recognized as a core psychological resource that supports adaptive functioning across personal, relational, and social domains (Keikhabadi et al., 2021; Yadollahi Saber et al., 2019). Low levels of perceived responsibility among married women have been associated with reduced marital satisfaction, increased emotional exhaustion, and weakened family cohesion (Hajjadineh & Kalhorniya Golkar, 2019; Mirzania et al., 2018).

Recent sociocultural transformations—including economic pressures, shifting gender roles, and increasing psychosocial stressors—have intensified the demands placed on married women, particularly in midlife. These pressures often manifest as heightened emotional strain, impaired relational functioning, and diminished psychological resources, thereby placing family systems at risk for chronic maladjustment (Shaleh & Nuraini, 2021; Westrupp et al., 2023). The COVID-19 pandemic further

exacerbated these vulnerabilities by amplifying psychological distress, disrupting family routines, and increasing caregiving burdens, especially for women (Westrupp et al., 2023). Such conditions underscore the urgent need for empirically supported interventions that enhance both individual responsibility and family functioning through structured psychological training programs.

Choice Theory, developed by William Glasser, offers a comprehensive framework for understanding human behavior as fundamentally driven by internal motivation, personal responsibility, and the satisfaction of five basic psychological needs: survival, love and belonging, power, freedom, and fun (Glasser, 2001). According to this theory, psychological distress and relational conflict arise primarily from ineffective attempts to meet these needs, often through externally controlled behaviors such as blame, coercion, criticism, and withdrawal (Glasser, 2001). By contrast, individuals who develop internal control, responsible decision-making, and effective communication skills are better equipped to regulate emotions, resolve conflicts, and sustain healthy interpersonal relationships (Finney & Lenz, 2023).

Reality Therapy, the applied counseling approach derived from Choice Theory, has demonstrated significant effectiveness across a broad range of psychological and relational outcomes. Systematic reviews indicate that Choice Theory-based interventions yield consistent improvements in marital adjustment, emotional regulation, intimacy, communication quality, and personal responsibility (Finney & Lenz, 2023). Group-based implementations of this model further amplify these effects by fostering peer learning, emotional validation, and collective problem-solving processes (Besharat Qaramaleki et al., 2024). Empirical studies conducted in diverse populations have confirmed that group Reality Therapy enhances marital satisfaction, reduces conflict, increases emotional differentiation, and strengthens adaptive coping among couples and families (Besharat Qaramaleki et al., 2024; Hajjadineh & Kalhorniya Golkar, 2019; Mirzania et al., 2018).

Within Iranian cultural contexts, the applicability of Choice Theory has received growing empirical support. Research demonstrates that structured group training based on Choice Theory significantly improves responsibility among married women, enhances psychological capital in adolescent girls, and promotes healthier behavioral patterns in vulnerable populations (Keikhabadi et al., 2021; Shariati Pour et al., 2019). Additionally, studies indicate that such

interventions effectively reduce aggression, improve social adjustment among individuals with substance use disorders, and strengthen health-promoting behaviors in menopausal women (Ebrahimi Sani & Mohammadi Pour, 2023; Ensan et al., 2018). These findings collectively affirm the cultural adaptability and therapeutic robustness of Choice Theory-based programs.

Responsibility occupies a central position within the theoretical architecture of Choice Theory. Glasser conceptualizes responsibility as the individual's capacity to make effective choices that respect personal needs while maintaining harmonious relationships with others (Glasser, 2001). Empirical research further supports the role of responsibility as a predictor of psychological well-being, hope, resilience, and life satisfaction, particularly among women navigating complex relational demands (Keikhabadi et al., 2021; Yadollahi Saber et al., 2019). Enhancing responsibility through targeted training not only strengthens self-regulation and goal-directed behavior but also facilitates healthier family interactions and conflict resolution (Finney & Lenz, 2023).

Family functioning, as a multidimensional construct encompassing problem-solving, role clarity, emotional responsiveness, communication, affective involvement, and behavioral control, serves as both an outcome and a mediator of psychological interventions (Dai & Wang, 2015; Wallace, 2015). Improvements in these domains are consistently associated with reductions in depression and anxiety, enhanced marital adjustment, and greater relational satisfaction (Shao et al., 2020; Westrupp et al., 2023). Studies focusing on women experiencing marital distress reveal that therapeutic interventions grounded in Choice Theory and emotion-focused approaches significantly reduce cognitive avoidance, irrational beliefs, and marital perfectionism while strengthening emotional stability and relational competence (Tooze et al., 2025; Zahed et al., 2025).

Despite the expanding body of research supporting Choice Theory-based interventions, several gaps remain. First, relatively few studies have simultaneously examined both responsibility and comprehensive family functioning as joint outcomes of group-based Choice Theory training, particularly among middle-aged married women. Second, most existing investigations focus on either marital satisfaction or individual psychological variables, without systematically addressing the broader family system (Aboui et al., 2024; Finney & Lenz, 2023). Third, longitudinal evidence assessing the sustainability of treatment effects

beyond immediate post-intervention remains limited, especially within non-Western sociocultural contexts.

Moreover, midlife represents a critical developmental period for women, characterized by cumulative role strain, shifting family structures, and heightened vulnerability to emotional exhaustion and relational dissatisfaction (Shaleh & Nuraini, 2021; Westrupp et al., 2023). Addressing these challenges through theoretically grounded, culturally responsive, and empirically validated group interventions is therefore of both scientific and practical significance. The integration of Choice Theory principles into structured group training offers a promising pathway for strengthening responsibility, enhancing family functioning, and promoting long-term psychological health among married women.

In summary, converging theoretical perspectives and empirical findings underscore the importance of responsibility and family functioning as foundational components of individual and relational well-being. Choice Theory-based group training provides a coherent and evidence-based framework for cultivating these capacities through internal control, responsible choice-making, emotional awareness, and constructive communication (Besharat Qaramaleki et al., 2024; Finney & Lenz, 2023; Glasser, 2001). Building upon the existing literature and addressing identified gaps, the present study seeks to extend current knowledge by systematically evaluating the effectiveness of group training grounded in Choice Theory on responsibility and family functioning among married women.

Therefore, the aim of this study was to examine the effectiveness of group training based on Choice Theory on family functioning and responsibility among married women.

## 2. Methods and Materials

### 2.1. Study design and Participant

This study was applied in terms of purpose, quantitative in terms of data type, and quasi-experimental in terms of method, employing a pretest–posttest design with experimental and control groups and a follow-up phase.

The statistical population consisted of married women aged 40 to 55 years from public elementary schools in District Three of Tehran, who were recruited through convenience access from among mothers and voluntarily completed the Family Functioning Questionnaire and the Responsibility Questionnaire with informed consent.

Out of 300 mothers, 108 were within the age range of 40 to 55 years. Using purposive and voluntary sampling, 66 participants volunteered to complete the two assessments. From those with low scores, 48 individuals were purposively selected and randomly assigned into two groups of 24 participants each (experimental and control). Although all 48 participants met the inclusion criteria, three participants from the experimental group withdrew from the study, leaving 21 participants for the posttest, and one participant from the control group did not attend the posttest.

The intervention was administered to the experimental group in eight group sessions, each lasting 120 minutes, while the control group received no training. Four days after completion of the sessions, posttests were simultaneously administered to both groups. Two months later, the same participants were invited for the follow-up phase, during which both assessments were again administered to both groups. Finally, in accordance with ethical principles, after data collection and finalization of results, group training based on Choice Theory was also provided to the control group.

The inclusion criteria were willingness and informed consent to participate in the study, no history of psychiatric disorders, a responsibility score below 84, and a family functioning score above 120. The exclusion criteria were severe physical illness preventing session attendance, incomplete questionnaire responses, use of psychotropic medication, and presence of psychotic disorders.

For data collection, two instruments were used: the California Responsibility Questionnaire (1987) and the McMaster Family Assessment Device developed by Epstein et al. (1980).

## 2.2. Measures

California Responsibility Questionnaire (1987): The instrument used to measure responsibility was the California Responsibility Questionnaire developed by Gough (1987), consisting of 42 items. This questionnaire was originally developed by Harrison G. Gough in 1951 with 648 items and 15 scales for assessing 15 personality traits, later expanded to 18 scales in 1957, and subsequently revised in 1987, increasing the total number of items to 162 and subscales to 20. The 42-item responsibility scale assesses characteristics such as conscientiousness, sense of obligation, industriousness, seriousness, reliability, rule-governed behavior, and accountability. Responses are rated on a five-point Likert scale ranging from strongly agree (5) to strongly

disagree (1). The minimum score is 42, the average score is 126, and the maximum score is 210. The questionnaire was validated by Aghaei (2015), and its reliability coefficient was reported as  $r = .79$ . Both internal and external validity were confirmed. In the present study, Cronbach's alpha for the total scale was .81.

McMaster Family Assessment Device (Epstein et al., 1980): Family functioning was assessed using the Family Assessment Device developed by Epstein et al. (1980). This instrument evaluates six dimensions of family functioning: problem solving (items 2, 12, 24, 38, 50, 60), roles (items 4, 10, 15, 23, 30, 34, 40, 45, 53), affective responsiveness (items 5, 9, 19, 28, 35, 39, 57), communication (items 3, 14, 18, 29, 43, 52, 59), affective involvement (items 12, 21, 22, 25, 33, 37, 42, 54), and behavior control (items 1, 6, 8, 11, 16, 20, 26, 31, 36, 41, 49, 56). Responses are rated on a four-point Likert scale ranging from strongly agree (1) to strongly disagree (4), with higher scores indicating poorer family functioning. In the study by Epstein et al. (1980), Cronbach's alpha coefficients ranged from .72 to .92, indicating acceptable internal consistency. In the study conducted by Heydari (2018), Cronbach's alpha coefficients for the total questionnaire and subscales of problem solving, communication, roles, affective responsiveness, affective involvement, behavior control, and overall functioning were reported as .61, .38, .72, .64, .65, and .81, respectively. In the present study, the reliability of the questionnaire and its subscales was examined using Cronbach's alpha and the Spearman-Brown split-half method.

## 2.3. Intervention

The eight-session intervention protocol consisted of the following structure: Session 1 included pretesting of both groups and explanation of study objectives. Session 2 addressed the nature and origin of behavior and introduced the five basic needs of survival, love, power, fun, and freedom. Session 3 focused on teaching the ten principles of Choice Theory and comparing internal and external behavioral control. Session 4 involved replacing seven destructive behaviors with seven connecting behaviors. Session 5 emphasized training and identifying the quality world. Session 6 introduced the behavior system and its four components. Session 7 focused on the role of responsibility and included training in the conflict resolution circle and effective communication. Session 8 consisted of participant feedback and review of the training content. Each session

included review of the previous session and assignment of homework.

#### 2.4. Data Analysis

Finally, the collected data were analyzed using repeated-measures analysis of variance, Bonferroni post-hoc tests, and SPSS version 23. The results indicated that group training based on Choice Theory significantly improved family functioning and responsibility among married women at posttest, and that the difference between the experimental and control groups remained significant at

follow-up, with superior performance observed in the experimental group ( $p < .01$ ).

### 3. Findings and Results

Table 1 presents the descriptive statistics (means and standard deviations) of the study variables for the experimental and control groups across the three measurement stages: pretest, posttest, and follow-up. These indices provide an overview of baseline equivalence, post-intervention change, and maintenance of outcomes over time.

**Table 1**

*Descriptive Statistics of Pretest, Posttest, and Follow-Up for Study Variables*

Variable	Group	Pretest Mean	Pretest SD	Posttest Mean	Posttest SD	Follow-Up Mean	Follow-Up SD
Responsibility	Experimental	63.58	3.92	68.04	3.57	67.85	3.62
	Control	63.45	3.62	63.34	3.18	63.08	3.28
Family Functioning (Total)	Experimental	121.83	5.41	103.90	5.59	104.71	5.09
	Control	125.37	5.60	125.78	5.35	125.30	4.85
Problem Solving	Experimental	14.87	1.65	11.71	1.76	11.80	1.69
	Control	15.08	1.28	14.86	1.21	14.78	0.95
Roles	Experimental	21.66	1.76	17.61	1.49	17.66	1.55
	Control	22.29	1.42	22.08	1.41	22.17	1.26
Affective Responsiveness	Experimental	21.87	2.21	18.38	2.41	19.04	2.13
	Control	22.00	2.48	22.26	2.09	21.91	1.75
Communication	Experimental	17.33	1.11	14.54	1.64	14.47	1.50
	Control	17.66	1.60	18.13	1.57	18.30	1.39
Affective Involvement	Experimental	19.66	1.65	17.20	1.44	17.23	1.48
	Control	19.75	1.56	20.04	1.60	20.13	1.42
Behavior Control	Experimental	28.00	2.84	24.61	2.74	24.71	2.66
	Control	28.58	2.87	28.39	2.60	28.00	2.37

As shown in Table 1, the experimental and control groups demonstrated comparable baseline scores across all variables at pretest. Following the intervention, the experimental group exhibited notable improvement in responsibility ( $M = 68.04$ ) and overall family functioning ( $M = 103.90$ ), whereas the control group showed minimal change. Improvements were also observed across all subcomponents of family functioning in the experimental group, including problem solving, roles, affective responsiveness, communication, affective involvement, and behavior control. These gains were largely maintained at the follow-up stage, indicating sustained intervention effects. In contrast, the control group's scores remained relatively stable or slightly worsened across posttest and follow-up measurements, suggesting that the observed changes were attributable to the intervention rather than natural variation over time.

Assumption testing indicated that all prerequisites for conducting the repeated-measures and multivariate analyses

were satisfactorily met. Normality of the distributions was examined using the Shapiro–Wilk test, which is appropriate for the present sample size, and the results confirmed normal distributions for all variables across measurement occasions, including responsibility at pretest ( $W = 0.967$ ,  $p = 0.245$ ), posttest ( $W = 0.966$ ,  $p = 0.215$ ), and follow-up ( $W = 0.973$ ,  $p = 0.380$ ), as well as family functioning at pretest ( $W = 0.987$ ,  $p = 0.893$ ), posttest ( $W = 0.956$ ,  $p = 0.069$ ), and follow-up ( $W = 0.966$ ,  $p = 0.565$ ), with all significance values exceeding the 0.05 threshold. The assumption of sufficient correlation among the dependent variables was supported by Bartlett's test of sphericity ( $\chi^2 = 1428.68$ ,  $p = 0.001$ ), indicating adequate intercorrelations across time points, while the homogeneity of covariance matrices was confirmed by Box's M test ( $M = 132.96$ ,  $p = 0.290$ ). In addition, the multivariate effect was statistically significant based on Wilks' Lambda ( $\Lambda = 0.030$ ,  $F(15, 28) = 60.803$ ,  $p = 0.001$ ), suggesting that the combined dependent variables exhibited meaningful change across groups and time.



Finally, the assumption of homogeneity of variances was verified using Levene's test for all dependent variables at pretest, posttest, and follow-up, with non-significant results for responsibility ( $F$  values = 0.001–0.134,  $p$  values = 0.716–0.972) and total family functioning ( $F$  values = 0.255–0.950,  $p$  values = 0.335–0.616), as well as for all subcomponents of family functioning, confirming that variance equality was maintained across experimental and control groups.

Evaluation of the sphericity assumption using Mauchly's test indicated that this assumption was violated for several dependent variables, thereby necessitating the application of Greenhouse–Geisser corrections in the repeated-measures analyses. Specifically, Mauchly's  $W$  was significant for responsibility ( $W = 0.363$ ,  $\chi^2 = 41.55$ ,  $df = 2$ ,  $p = 0.001$ ) and overall family functioning ( $W = 0.606$ ,  $\chi^2 = 20.55$ ,  $df = 2$ ,  $p = 0.001$ ), indicating departure from sphericity, with

corresponding Greenhouse–Geisser epsilon values of 0.611 and 0.717, respectively. Significant violations were also observed for problem solving ( $W = 0.858$ ,  $\chi^2 = 6.26$ ,  $df = 2$ ,  $p = 0.044$ ,  $\epsilon = 0.876$ ), roles ( $W = 0.725$ ,  $\chi^2 = 13.20$ ,  $df = 2$ ,  $p = 0.001$ ,  $\epsilon = 0.784$ ), affective responsiveness ( $W = 0.639$ ,  $\chi^2 = 18.36$ ,  $df = 2$ ,  $p = 0.001$ ,  $\epsilon = 0.735$ ), communication ( $W = 0.717$ ,  $\chi^2 = 13.64$ ,  $df = 2$ ,  $p = 0.002$ ,  $\epsilon = 0.779$ ), and behavior control ( $W = 0.777$ ,  $\chi^2 = 10.32$ ,  $df = 2$ ,  $p = 0.008$ ,  $\epsilon = 0.818$ ). In contrast, the assumption of sphericity was satisfied for affective involvement ( $W = 0.932$ ,  $\chi^2 = 2.88$ ,  $df = 2$ ,  $p = 0.236$ ), with a Greenhouse–Geisser epsilon of 0.936, indicating that no correction was required for this subscale. Overall, the obtained epsilon coefficients supported the use of Greenhouse–Geisser-adjusted degrees of freedom for the majority of repeated-measures effects to ensure the validity of the inferential conclusions.

**Table 2**

*Between-Groups Effects Test*

Dependent Variable	Source of Variance	Sum of Squares	df	Mean Square	F	Sig.	Eta Squared
Responsibility	Group	391.49	1	391.49	11.12	0.001	0.209
	Error	1477.47	42	35.17			
Family Functioning (Total)	Group	7720.34	1	7720.34	105.72	0.001	0.716
	Error	3066.89	42	73.02			
Problem Solving	Group	143.90	1	143.90	26.81	0.001	0.390
	Error	225.39	42	5.36			
Roles	Group	344.85	1	344.85	58.86	0.001	0.584
	Error	246.07	42	5.85			
Affective Responsiveness	Group	200.79	1	200.79	14.70	0.001	0.259
	Error	573.71	42	13.66			
Communication	Group	230.19	1	230.19	42.76	0.001	0.505
	Error	226.06	42	5.38			
Affective Involvement	Group	129.82	1	129.82	19.31	0.001	0.315
	Error	282.31	42	6.72			
Behavior Control	Group	217.28	1	217.28	10.10	0.003	0.194
	Error	902.92	42	21.49			

The between-groups analysis revealed statistically significant differences between the experimental and control groups across all dependent variables. Responsibility showed a significant group effect ( $F = 11.12$ ,  $p = 0.001$ ,  $\eta^2 = 0.209$ ), indicating a moderate effect size. A very strong group effect was observed for total family functioning ( $F = 105.72$ ,  $p = 0.001$ ,  $\eta^2 = 0.716$ ), reflecting a large magnitude of impact. Significant effects were also found for all

subdimensions of family functioning, including problem solving ( $F = 26.81$ ,  $p = 0.001$ ,  $\eta^2 = 0.390$ ), roles ( $F = 58.86$ ,  $p = 0.001$ ,  $\eta^2 = 0.584$ ), affective responsiveness ( $F = 14.70$ ,  $p = 0.001$ ,  $\eta^2 = 0.259$ ), communication ( $F = 42.76$ ,  $p = 0.001$ ,  $\eta^2 = 0.505$ ), affective involvement ( $F = 19.31$ ,  $p = 0.001$ ,  $\eta^2 = 0.315$ ), and behavior control ( $F = 10.10$ ,  $p = 0.003$ ,  $\eta^2 = 0.194$ ), confirming that the intervention exerted substantial and systematic effects on all outcome domains.

**Table 3**

*Mean Comparisons of Responsibility and Family Functioning Between Groups*

Variable	Group (A)	Group (B)	Mean Difference	Sig.
Responsibility	Experimental	Control	3.44	0.002
Family Functioning (Total)	Experimental	Control	-15.31	0.001
Problem Solving	Experimental	Control	-2.09	0.001
Roles	Experimental	Control	-3.23	0.001
Affective Responsiveness	Experimental	Control	-2.46	0.001
Communication	Experimental	Control	-2.64	0.001
Affective Involvement	Experimental	Control	-1.98	0.001
Behavior Control	Experimental	Control	-2.56	0.003

Post-hoc mean comparisons demonstrated that the experimental group significantly outperformed the control group on responsibility (mean difference = 3.44,  $p = 0.002$ ). Moreover, the experimental group showed significantly lower scores on total family functioning and all its subcomponents, including problem solving, roles, affective responsiveness, communication, affective involvement, and

behavior control (all  $p \leq 0.003$ ). Given that lower scores on the family functioning scale indicate healthier functioning, these results provide strong evidence that the Choice Theory-based group training produced broad and meaningful improvements in both responsibility and overall family functioning among the participating women.

**Table 4**

*Within-Groups Effects of Responsibility and Family Functioning (Greenhouse–Geisser Correction Applied)*

Dependent Variable	Effect	Source of Variance	Sum of Squares	df	Mean Square	F	Sig.	Eta Squared
Responsibility	Greenhouse–Geisser	Time	115.19	1.22	94.29	111.61	0.001	0.727
		Time $\times$ Group	109.13	1.22	89.33	105.74	0.001	0.716
		Error	43.34	51.31	0.84			
Family Functioning (Total)	Greenhouse–Geisser	Time	2345.04	1.43	1634.82	267.61	0.001	0.864
		Time $\times$ Group	2319.49	1.43	1617.01	264.70	0.001	0.863
		Error	368.03	60.24	6.10			
Problem Solving	Greenhouse–Geisser	Time	78.21	1.75	44.64	88.24	0.001	0.678
		Time $\times$ Group	62.63	1.75	35.75	70.66	0.001	0.627
		Error	37.22	73.58	0.50			
Roles	Greenhouse–Geisser	Time	123.26	1.56	78.60	277.04	0.001	0.868
		Time $\times$ Group	103.17	1.65	65.79	231.88	0.001	0.847
		Error	18.68	65.86	0.28			
Affective Responsiveness	Greenhouse–Geisser	Time	65.03	1.46	44.25	89.14	0.001	0.680
		Time $\times$ Group	72.16	1.46	49.10	98.90	0.001	0.702
		Error	30.64	61.71	0.49			
Communication	Greenhouse–Geisser	Time	43.10	1.55	27.65	44.74	0.001	0.516
		Time $\times$ Group	79.47	1.55	50.98	99.20	0.001	0.663
		Error	40.46	65.46	0.61			
Affective Involvement	Greenhouse–Geisser	Time	35.57	1.87	18.99	76.82	0.001	0.647
		Time $\times$ Group	57.57	1.87	30.74	82.48	0.001	0.748
		Error	19.44	78.65	0.23			
Behavior Control	Greenhouse–Geisser	Time	110.70	1.63	67.68	147.08	0.001	0.778
		Time $\times$ Group	62.03	1.63	37.92	82.42	0.001	0.662
		Error	31.61	68.70	0.46			

The within-groups analysis demonstrated statistically significant main effects of time and significant time  $\times$  group interactions for responsibility and all dimensions of family functioning (all  $p = 0.001$ ), indicating that the observed changes across measurement occasions differed systematically between the experimental and control groups.

Effect sizes were uniformly large, with eta squared values ranging from 0.516 to 0.868, reflecting substantial intervention impact over time. The strongest effects were observed for total family functioning ( $\eta^2 = 0.864$  for time;  $\eta^2 = 0.863$  for time  $\times$  group) and roles ( $\eta^2 = 0.868$  for time;  $\eta^2 = 0.847$  for time  $\times$  group), confirming that the intervention

produced broad and durable improvements in core aspects of family functioning and responsibility.

**Table 5**

*Pairwise Comparisons of Responsibility and Family Functioning Across Three Assessment Stages*

Variable	Time (I)	Time (J)	Mean Difference	Standard Error	Sig.
Responsibility	Pretest	Posttest	-2.08	0.170	0.001
	Pretest	Follow-Up	-1.86	0.191	0.001
	Posttest	Follow-Up	0.179	0.066	0.059
Family Functioning (Total)	Pretest	Posttest	9.03	0.486	0.001
	Pretest	Follow-Up	8.86	0.534	0.001
	Posttest	Follow-Up	-0.166	0.278	1.000
Problem Solving	Pretest	Posttest	1.63	0.134	0.001
	Pretest	Follow-Up	1.63	0.166	0.001
	Posttest	Follow-Up	0.004	0.122	1.000
Roles	Pretest	Posttest	2.08	0.090	0.001
	Pretest	Follow-Up	2.01	0.124	0.001
	Posttest	Follow-Up	0.025	0.117	1.000
Affective Responsiveness	Pretest	Posttest	1.51	0.123	0.001
	Pretest	Follow-Up	1.47	0.161	0.001
	Posttest	Follow-Up	-0.040	0.094	1.000
Communication	Pretest	Posttest	1.25	0.143	0.001
	Pretest	Follow-Up	1.16	0.181	0.001
	Posttest	Follow-Up	-0.087	0.112	0.960
Affective Involvement	Pretest	Posttest	1.15	0.108	0.001
	Pretest	Follow-Up	1.04	0.110	0.001
	Posttest	Follow-Up	-0.115	0.088	0.602
Behavior Control	Pretest	Posttest	1.86	0.104	0.001
	Pretest	Follow-Up	2.01	0.157	0.001
	Posttest	Follow-Up	0.148	0.126	0.740

Pairwise comparisons revealed significant improvements from pretest to posttest and from pretest to follow-up across all outcome variables (all  $p = 0.001$ ), indicating immediate and sustained intervention effects. In contrast, differences between posttest and follow-up were non-significant for all variables ( $p > 0.059$ ), demonstrating stability of gains over time. These findings confirm that the Choice Theory-based group intervention produced enduring enhancements in responsibility and family functioning without evidence of regression during the follow-up period.

#### 4. Discussion

The present study investigated the effectiveness of group training based on Choice Theory in enhancing responsibility and family functioning among married women. The findings demonstrated significant improvements in both responsibility and overall family functioning in the experimental group compared to the control group at posttest, with these gains remaining stable at the two-month follow-up. These results provide robust empirical support for the efficacy of Choice Theory-based interventions in promoting adaptive psychological and relational outcomes

among married women, consistent with the theoretical assumptions of Glasser's model (Glasser, 2001).

The observed increase in responsibility among participants in the experimental group aligns closely with the core premise of Choice Theory that psychological well-being is grounded in individuals' capacity to exercise internal control and make effective, self-directed choices (Glasser, 2001). Responsibility, as conceptualized in this framework, reflects a person's ability to regulate behavior in accordance with personal needs and relational demands. The significant improvement in responsibility observed in the current study corroborates the findings of Yadollahi Saber et al. (Yadollahi Saber et al., 2019), who reported that Choice Theory training significantly enhanced responsibility and hope among female students. Similarly, Keikhabadi et al. (Keikhabadi et al., 2021) demonstrated that group-based Reality Therapy based on Choice Theory led to meaningful increases in responsibility among married women, suggesting that the present results extend prior evidence to a middle-aged female population and reinforce the generalizability of the intervention's effects.

The substantial improvements in overall family functioning and its subdimensions—problem solving, roles,



emotional responsiveness, communication, affective involvement, and behavior control—further substantiate the systemic impact of the intervention. These findings are theoretically coherent with Choice Theory's emphasis on replacing external control behaviors with connecting behaviors such as listening, supporting, encouraging, and negotiating, which directly enhance relational quality within the family system (Glasser, 2001). Empirically, the present results are in line with Mirzania et al. (Mirzania et al., 2018), who found that Reality Therapy based on Choice Theory significantly increased marital satisfaction and reduced marital conflicts among women seeking divorce. Likewise, Hajiadineh and Kalhorniya Golkar (Hajiadineh & Kalhorniya Golkar, 2019) reported notable improvements in marital adjustment and sexual satisfaction among couples receiving Choice Theory-based group training, outcomes that closely parallel the enhancements in family functioning observed in the current study.

The durability of the intervention effects at follow-up provides additional support for the long-term value of Choice Theory-based group training. The maintenance of gains suggests that participants not only acquired new cognitive and behavioral skills but also integrated these skills into their daily lives, leading to sustained improvements in personal responsibility and family interactions. This pattern is consistent with the conclusions of Finney and Lenz's systematic review (Finney & Lenz, 2023), which identified Choice Theory and Reality Therapy as effective in producing enduring improvements in couple and family counseling contexts. Furthermore, Besharat Qaramaleki et al. (Besharat Qaramaleki et al., 2024) documented lasting effects of group-based Reality Therapy on marital adjustment, emotional differentiation, and intimacy among couples experiencing emotional divorce, supporting the notion that the mechanisms of Choice Theory facilitate long-term relational change.

The improvements in specific components of family functioning observed in this study are particularly noteworthy. For example, enhanced problem-solving and role functioning suggest that participants developed greater clarity regarding family responsibilities and decision-making processes, which is essential for maintaining functional family systems (Dai & Wang, 2015). The observed gains in emotional responsiveness and communication further indicate that participants became more adept at expressing emotions constructively and engaging in open, respectful dialogue—skills that are foundational to healthy family functioning and

psychological adjustment (Wallace, 2015). These outcomes are also consistent with Aboui et al. (Aboui et al., 2024), who identified family functioning as a significant predictor of quality of life and relational stability among women, underscoring the practical importance of the improvements documented in the present study.

The current findings also resonate with broader evidence linking improved family functioning to reduced psychological distress and enhanced mental health. Westrupp et al. (Westrupp et al., 2023) demonstrated that higher family functioning is associated with better mental health outcomes for parents and children, particularly during periods of heightened stress. Similarly, Shao et al. (Shao et al., 2020) reported strong associations between dysfunctional family processes and elevated levels of depression and anxiety. By strengthening family functioning and personal responsibility, the present intervention likely contributed to protective psychological processes that support long-term well-being among married women.

Cultural considerations further reinforce the significance of the present results. In Iranian society, married women frequently shoulder a substantial share of emotional, relational, and caregiving responsibilities, making them particularly vulnerable to psychological strain and relational burnout (Shaleh & Nuraini, 2021). Interventions that enhance internal control, emotional regulation, and relational competence are therefore highly relevant. The effectiveness of Choice Theory-based group training in this context is consistent with previous Iranian studies demonstrating positive outcomes for diverse populations, including menopausal women (Ensan et al., 2018), individuals with substance use disorders (Ebrahimi Sani & Mohammadi Pour, 2023), and orphaned adolescent girls (Shariati Pour et al., 2019). The present study contributes to this growing body of culturally grounded evidence by focusing on middle-aged married women, a group that has received comparatively limited empirical attention.

Moreover, the present findings complement emerging research comparing Choice Theory-based interventions with other therapeutic approaches. For instance, Zahed et al. (Zahed et al., 2025) and Toope et al. (Toope et al., 2025) demonstrated that Reality Therapy is highly effective in reducing maladaptive cognitive and emotional patterns among women experiencing marital distress. The current study extends these findings by demonstrating that beyond alleviating distress, Choice Theory-based group training can proactively enhance core family processes and personal

responsibility, thereby promoting long-term relational resilience.

## 5. Conclusion

Taken together, the results of this study provide compelling evidence that group training based on Choice Theory is a powerful and sustainable intervention for enhancing responsibility and family functioning among married women. By fostering internal control, strengthening emotional and communicative competencies, and promoting constructive relational behaviors, this intervention addresses both individual and systemic dimensions of psychological well-being. The findings not only replicate and extend previous research but also underscore the relevance of Choice Theory as a culturally adaptable and empirically supported framework for family-centered psychological interventions.

## 6. Limitations and Suggestions

Despite the strengths of this study, several limitations should be acknowledged. First, the sample size was relatively modest and drawn from a specific geographic and cultural context, which may limit the generalizability of the findings. Second, reliance on self-report measures introduces the possibility of response bias and social desirability effects. Third, the follow-up period was limited to two months, restricting conclusions about long-term sustainability of the intervention effects. Fourth, the absence of qualitative data prevented deeper exploration of participants' subjective experiences and the mechanisms underlying observed changes.

Future studies should employ larger and more diverse samples to enhance generalizability and examine the applicability of Choice Theory-based interventions across different cultural and socioeconomic contexts. Longitudinal designs with extended follow-up periods are recommended to assess the durability of intervention effects over time. Incorporating qualitative methods could provide richer insights into participants' lived experiences and the processes of change. Comparative studies evaluating Choice Theory against alternative therapeutic models would further clarify its relative effectiveness. Finally, examining potential mediators and moderators of treatment outcomes would contribute to a more comprehensive understanding of how and for whom this intervention is most beneficial.

Mental health practitioners, family counselors, and community psychologists are encouraged to integrate

Choice Theory-based group training into programs for married women, particularly those experiencing relational strain and psychological stress. Structured group interventions can be delivered in community health centers, counseling clinics, and family support organizations. Training professionals in Choice Theory principles may enhance the effectiveness of family-focused services. Policymakers and program developers should consider incorporating such evidence-based interventions into preventive mental health initiatives targeting women and families.

## Authors' Contributions

P.M.Z. was responsible for the conceptualization of the study and overall research design; R.F. conducted the data collection and contributed to the implementation of the intervention; Z.R. performed the statistical analysis and interpreted the results; and M.E. participated in drafting the manuscript and critical revision. All authors reviewed the final version of the manuscript and approved its submission.

## 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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