




# Effectiveness of an Integrated Group Intervention Based on Mentalization and a Training Package for Building a Secure Bond on Insecure Attachment Styles in Spouses

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## ABSTRACT

**Objective:** The present study aimed to investigate the effectiveness of an integrated intervention combining mentalization and the training package for building a secure bond on attachment styles in spouses with insecure attachment styles.

**Method:** This quasi-experimental study employed a pretest-posttest design with a control group and a two-month follow-up. The statistical population consisted of couples who had sought services from counseling and psychology centers in northern Tehran under the supervision of the Iranian Organization of Psychology and Counseling in 2022 and who were in the first five years of their marital life. Based on the inclusion criteria, 24 couples with insecure attachment styles were identified and randomly assigned to either the experimental or control group. The intervention was implemented over 12 sessions, with weekly two-hour training sessions for the experimental group. Data were collected using the Attachment Styles Questionnaire (Bartholomew & Horowitz, 1991). The data were analyzed using mixed ANOVA with one within-subject factor (time) and one between-subject factor (experimental and control groups), Bonferroni post hoc test, and SPSS software version 25.

**Findings:** The findings of this study indicated that the integrated intervention of mentalization and the training package for building a secure bond had a significant and positive effect on the attachment styles of couples ( $p < .01$ ), and the effects were sustained after a two-month follow-up.

**Conclusion:** Based on the obtained results, couples' therapists can use the integrated intervention of mentalization and building a secure bond to optimize attachment styles in couples with insecure attachment styles who are in the early years of their marital life.

**Keywords:** *Mentalization, Building a Secure Bond, Attachment Styles.*

## 1. Introduction

A long-term marital bond is often one of the most critical decisions individuals make (Johnson, 2019; Kefalas et al., 2011). Therefore, one of the most significant developmental tasks in adulthood, especially within a marital relationship, is the ability to form and maintain stable, satisfying intimate relationships (Ghorashi, 2020). A strong romantic relationship, which also enhances personal growth and self-actualization and is linked to a positive and coherent sense of self, is unique to spouses who experience a secure bond together (Anderson et al., 2017; Gilmore & Jorgensen, 2019; Gilmore, 2018). A secure relationship enables spouses to be sensitive to each other's needs, understand each other's fears and negative emotions, and use empathetic responses to manage conflicts. The clearest characteristic of these couples is their secure attachment style (Gillath et al., 2016).

Secure attachment style affects individuals' ability to form healthy relationships in adulthood, including romantic and friendship relationships. Those raised with secure attachments learned how to form positive connections with others and apply the skills they developed from caregivers in adult relationships, especially in marital relationships. A secure bond helps couples feel supported in life, allowing them to experience lasting marital life (Johnson, 2019; Li et al., 2021). Unfortunately, 40% to 50% of marriages end in divorce within the first five years of life together (Daneshfar & Keramat, 2023). The divorce rate in Iran, particularly within the first five years of marriage, has seen a significant increase in recent years. According to statistics published in 2020 by the National Organization for Civil Registration, for every three registered marriages, one divorce was recorded, most of which involved couples married for one to five years. There are considerable concerns regarding the prevalence of divorce among young, recently married couples. The primary factor determining the durability of a marriage is the level of marital satisfaction achieved by newlyweds, which depends on sexual satisfaction, marital compatibility, conflict resolution styles, and marital intimacy (Daneshfar & Keramat, 2023).

Research has also shown that attachment style has a significant impact on marital quality and stability (Bradley & Hojjat, 2017; Johnson, 2019; Mikulincer & Shaver, 2019; Tavakol et al., 2017). Common patterns in distressed couples include destructive arguments characterized by attacks, blame, hostile criticism, and contempt. Over time, these interaction patterns undermine the emotional security of the

relationship, eroding love, sexual attraction, intimacy, trust, and commitment between couples. Marital discord is associated with a wide range of mood disorders, anxiety, and substance abuse, gradually increasing symptoms of depression and anxiety (Johnson, 2019). The core problem is that couples become emotionally disconnected and do not feel secure together. Many are unaware that the primary source of their conflicts and arguments is the emotional disconnection, which causes them to fall further into a cycle of insecure communication (Johnson, 2019).

Research has indicated that one of the most significant contributors to marital conflict and divorce is insecure attachment styles in spouses, while secure attachment is positively associated with relationship satisfaction in adult romantic relationships (Allen, 2023). These findings highlight the distress often caused by one spouse's critical behavior toward the other, a pain that is comprehensible through attachment theory principles. Attachment theory has thus emphasized the emotional bonds of adults, and the essence of couple therapy has expanded to focus on attachment-based and systemic approaches (Adlparvar et al., 2021). Studies rooted in attachment theory suggest that individuals who experienced secure attachment in childhood exhibit better self-organization and higher self-esteem in adulthood. These adults tend to see others as reliable and view themselves as lovable and capable (Abedi et al., 2024).

However, Bowlby (1988) provided limited discussion about adult attachment from adolescence onward (Vedelago et al., 2023), while Ainsworth (1978), building on Bowlby's findings, demonstrated through her studies that experiencing security with others leads to greater openness and more direct communication styles (Backwalter & Reed, 2017). Emotional security facilitates an individual's ability to respond positively to their environment, while insecurity is linked to non-responsiveness and restricted experiences. This trajectory leads couples toward more adaptive emotional responses (Ibrahim et al., 2023; Parsakia et al., 2023).

In the current study, Bartholomew's attachment model was employed to measure spouses' attachment styles. Bartholomew (1990) developed an adult attachment model defined along two dimensions: self-model and other-model. The self-model assesses the extent to which an individual has internalized self-worth and relates to dependence on others' approval in close relationships. The other-model evaluates expectations about others' availability and supportiveness and is associated with the desire for or avoidance of closeness (Babaei, 2023; Bijani et al., 2023).

Combining these dimensions yields four adult attachment styles: secure, preoccupied, fearful, and dismissive. Secure individuals have a well-internalized sense of self-worth and are comfortable with intimacy. Preoccupied individuals anxiously seek acceptance and validation from others, believing they can achieve security by compelling others to respond appropriately. Dismissive individuals, due to negative expectations of intimacy, avoid closeness but maintain self-worth by devaluing intimate relationships. The fearful style combines negative self- and other-models, leading to avoidance of intimacy due to the fear of rejection or loss, similar to preoccupied individuals (Mardani et al., 2021; Rasaei & Movafagh 2021).

Therefore, it is evident that attachment behavior and style are crucial in marital relationships. Research findings indicate that adult attachment insecurity negatively correlates with relationship quality, while secure attachment is positively associated with satisfaction in stable adult relationships. Consequently, fostering secure attachment styles has become a focal point for researchers and psychologists working with couples (Bijani et al., 2023; Li et al., 2021; Mardani et al., 2021; Parsakia et al., 2023; Rasaei & Movafagh 2021; Tadros & Gregorash, 2022; Vedelago et al., 2023).

Synthesizing studies on the requirements for forming a stable and romantic relationship among newly married couples and reviewing related theories and research, it seems that securing attachment styles is the first step. Given the positive relationship of attachment style with sexual satisfaction (Antičević et al., 2017; Clymer et al., 2006; Kordi et al., 2018; Mark et al., 2018), conflict resolution styles and attachment behavior improvement, significant changes are expected in these areas (Clymer et al., 2006).

An attachment-based program assists couples in developing communication skills while discussing critical topics such as decision-making, affection, managing differences, exploring roles and expectations, sexual intimacy, and setting goals for their relationship (Gilmore & Jorgensen, 2019; Gilmore, 2018). According to recent research, changing attachment levels requires mentalization-based therapy (Allen, 2003, 2020; Allen & Fonagy, 2006; Bateman et al., 2023; Bateman & Fonagy, 2019). Mentalization-Based Therapy (MBT) is a specific form of psychodynamic psychotherapy that explains borderline personality disorder in all its complexity, rooted in Bowlby's attachment theory and the concept of mentalization. Mentalization refers to a reflective function aimed at understanding the reasoning behind one's own and others'

behaviors, possessing evolutionary value (Bateman et al., 2023). In essence, mentalization means perceiving oneself from the outside and the other from the inside, facilitating the understanding of communication misunderstandings through a return to mental states (Allen, 2020; Bateman & Fonagy, 2019).

Thus, when a primary caregiver accurately reflects and responds to a spouse's emotions within a secure environment, it leads to organized emotional experiences and the regulation of negative emotions. Consequently, spouses can interpret behaviors within mental states, acknowledging both self and other as owners of separate mental worlds (Allen & Fonagy, 2006). This fosters emotional representation capacity, emotion regulation, and attentional control, resulting in improved interpersonal relationships and reduced misunderstandings in future interactions (Bateman & Fonagy, 2019).

Mentalization in a marital context represents the ability of an individual, through internal mastery over emotions and capabilities, to make stable and effective decisions in a reliable emotional relationship. This adaptive function allows flexibility in dealing with emotional distance due to trust and emotional security, forming epistemic trust in romantic relationships. In this context, mentalization becomes deactivated, and judgments about a partner's intentions are suspended (Fonagy, 2018). Epistemic trust acts as a signal, fostering emotional closeness and integration experiences. Couples who achieve mentalization capacity during their developmental trajectory are expected to experience greater marital satisfaction through more adaptive interactions with their spouse (Nyberg & Hertzman, 2018).

The MBT-CO protocol is effective for couples, although few studies have examined group interventions based on this approach. The intervention helps spouses realize that painful attachment experiences and distorted self-representations based on these experiences may be outdated for managing current relationships. While individual (non-group) mentalization-based psychotherapy has been repeatedly tested for couples, group psychotherapy has received less attention despite its relevance to family and relational dynamics (Breach, 2012).

Educational interventions also play a role in securing attachment styles within marital relationships. Attachment theory claims that attachment and exploration are interdependent; thus, re-establishing the teacher-student bond in an optimal context can compensate for early attachment figure deficits (Breach, 2012). Although the

focus of educational research has rarely been on initiating marriage, and skill-based training does not always improve marital satisfaction, there is a scarcity of training programs aimed at understanding relational principles and creating secure attachment bonds (Gilmore & Jorgensen, 2019; Gilmore, 2018; Girmé et al., 2021; Johnson, 2019).

If newlywed couples can experience a secure emotional bond through an educational program, they will learn the necessary bonding knowledge through experiential learning. This study is guided by the transition theory, suggesting that stability is achieved through practice and repetition (Kasten, 2022).

The Bonding for a Lasting Connection (BLC) program, based on adult attachment theory and Emotionally Focused Couple Therapy, addresses attachment and communication dynamics. This program has demonstrated significant effectiveness in enhancing relationship quality and mental well-being among non-Iranian couples (Kasten, 2022). The BLC program uniquely combines experiential learning within a structured framework, offering a systematic approach to addressing critical topics such as decision-making, differences, affection, and sexual intimacy while setting relational goals. Participants learn to engage in meaningful conversations that deepen understanding and connection, not only protecting their relationship from common pitfalls but also developing the ability to maintain a genuine, lasting connection. The program is structured as a pyramid with five levels: attachment at the base, followed by communication, difference management, sexual intimacy, and, at the apex, goal sharing and ritual development (Gilmore & Jorgensen, 2019; Gilmore, 2018).

Considering the observed effects of mentalization-based couple therapy on intimacy (Nyberg & Hertzman, 2018) and the importance of creating secure conditions and enhancing couples' mental capacities for emotion regulation, as well as the research gap in Iran regarding attachment behavior, sexual satisfaction, and conflict resolution styles, the present study seeks to answer whether these variables change with an integrated intervention of mentalization and the Bonding for a Lasting Connection educational package.

## 2. Methods and Materials

### 2.1. Study Design and Participants

This research is applied in terms of its objective. The research method falls under the positivist paradigm and uses a deductive logic approach. Given the research goals and the subject, which focuses on assessing effectiveness and

intervention, a quasi-experimental method with a pretest-posttest design and a two-month follow-up with a control group was employed. The statistical method used in this study was a mixed two-factor design, with one within-group factor and one between-group factor. The study population comprised couples who sought services from psychology and counseling centers affiliated with the Iranian Organization of Psychology and Counseling (Roshanaaye Ravan Mehr, Nikrovan, and Ofogh Sazan Centers) in northern Tehran between engagement and the fifth year of marriage in 2022. From the couples visiting these centers, the Bartholomew Attachment Styles Test was initially administered to 100 volunteer couples to identify eligible participants based on inclusion criteria. Twenty-four couples with insecure attachment styles in both partners were randomly assigned to either the experimental or control group, with 12 couples in each group. The sample size estimation was conducted using Cohen's table, with an alpha of .05, effect size of .5, power of 84%, and  $u = 1$ .

**Inclusion Criteria:** Spouses who had been married for no more than five years, informed consent from both partners for participation in the educational-experiential course, and joint attendance in the sessions. **Exclusion criteria** included concurrent educational or therapeutic programs, the use of psychotropic drugs or substance addiction, and active infidelity or involvement in domestic violence. **Exclusion Criteria:** Missing more than two sessions or unwillingness to continue the sessions.

### 2.2. Measures

#### 2.2.1. Attachment Styles

This questionnaire, also known as the Relationship Scales Questionnaire (RSQ), was developed to measure four attachment styles (Bartholomew & Horowitz, 1991). Bartholomew presented an expanded model of adult attachment, encompassing both avoidant styles. He organized Bowlby's concept of internal working models into a framework of four attachment styles: secure, preoccupied, fearful, and dismissive, defined along two dimensions: self-model and other-model. A positive self-model indicates the degree to which an individual has internalized self-worth (versus feeling anxious and unsure of being lovable). Thus, the self-model relates to anxiety levels and dependence on approval from others in close relationships (also called the anxiety dimension). A positive other-model reflects expectations of others being available and supportive, relating to the tendency to seek or avoid closeness



(equivalent to the avoidance dimension). This scale includes 24 items and four components, measured on a five-point Likert scale (from strongly disagree to strongly agree), with each item scored from 1 to 5. The total score on each scale ranges from 24 to 120, where higher scores indicate a more secure attachment style, and lower scores indicate a more insecure attachment style. In Iran, a study at Shahid Beheshti University involving 51 students assessed the RSQ's reliability and validity. Content and face validity were enhanced by incorporating culturally relevant terminology as advised by specialists. The Cronbach's alpha coefficient of .73 for all items indicated acceptable reliability. Research has shown that the RSQ, with modifications to some items, has suitable reliability and validity in the Iranian context and is a reliable tool for distinguishing between the two types of avoidance (Kordi et al., 2018; Shamali Shahreza, 2020; Zarati & Mousavi, 2016).

### 2.3. Intervention

#### 2.3.1. Integrated Package Based on Mentalization

The intervention consists of a structured program designed to improve couples' mentalization capacities, attachment security, and relationship satisfaction. Over 12 sessions, couples will engage in experiential and educational activities focused on enhancing their understanding of each other's mental states, managing emotional experiences, and building secure attachments. The sessions are conducted in a safe and supportive environment, facilitated by a trained therapist who guides participants through discussions, exercises, and reflective practices (Allen, 2003, 2020; Allen & Fonagy, 2006; Bateman et al., 2023; Bateman & Fonagy, 2019; Fossati et al., 2014; Nyberg & Hertzman, 2018).

##### Session 1: Introduction to Mentalization

This session introduces the concept of mentalization and its dimensions. Couples learn what mentalization is, and the therapist works to establish an empathic relationship with the couples. The session includes discussions about the goals of the intervention and examples of mentalization from daily life. Participants are taught the different dimensions of mentalization and practice these concepts through role-play. Couples are assigned homework to apply these mentalization exercises in their daily interactions.

##### Session 2: Recognizing Mentalization

Participants learn to distinguish between effective and poor mentalization. The session covers indicators of beneficial and weak mentalization, difficulties with mindreading, emotional regulation, and impulsivity. The

therapist clarifies participants' interpretations and helps them understand how to enhance mentalization skills. Homework is provided to reinforce these concepts at home.

##### Session 3: Emotions

This session focuses on identifying core emotions and distinguishing between primary emotions and secondary feelings. Couples practice recognizing core emotional experiences using visual aids and exercises. They are guided to differentiate cognitively between primary and secondary emotions and explore individual differences in emotional management. Homework assignments help couples practice these skills in their everyday interactions.

##### Session 4: Emotion Regulation

The session addresses how to mentalize emotions, support one another empathetically, and regulate difficult emotions. Participants identify automatic mentalization patterns in emotional experiences and discuss how they process challenging emotional moments. The therapist introduces the concept of mirror neurons and emotion regulation systems. Couples engage in exercises focused on being present and sharing or listening to emotions.

##### Session 5: Couple Mentalization

Couples learn about how each partner's mentalization capacity influences the other and can create either healthy or maladaptive cycles. The therapist teaches the "I don't know" stance to help each partner enhance the other's mentalization capacity. Couples practice in-the-moment experiences to embrace this stance, fostering more understanding in their interactions.

##### Session 6: The Foundation of Love

This session is dedicated to building epistemic trust in the relationship. Couples are introduced to the concept of epistemic trust and practice exercises to strengthen this trust. They share and discuss romantic experiences to understand constructive and automatic mentalization patterns that facilitate deeper connections.

##### Session 7: Attachment Styles

The therapist explains attachment theory and different attachment styles. Couples identify their own attachment styles and reflect on experiences with safe figures from their lives. The session emphasizes the link between attachment, vulnerability, love, and security, facilitating a deeper understanding of how attachment influences their relationship.

##### Session 8: Attachment Cycle

Participants explore individual attachment cycles and the role of vulnerability. The session discusses the formation of fear systems and involves sharing personal experiences. The

therapist ensures a secure environment for these sensitive discussions and encourages the expression of emotional experiences.

Session 9: Communication

This session focuses on communication, particularly discussing individual attachment cycles and expressing vulnerability. Couples practice active listening and engage in exercises to discuss topics using mentalization techniques. The therapist supervises from a distance to provide support as needed.

Session 10: Differences

Couples learn to manage differences by understanding attachment cycles and communication styles. The therapist emphasizes avoiding the subconscious urge to assign blame. Couples discuss conflicts using mentalization techniques and share their fears, needs, and physical signs of feeling threatened. The therapist observes and provides guidance.

Session 11: Sexual Relationship

The session addresses sexual satisfaction in the context of attachment styles and relational dynamics. Couples learn about three patterns of sexual relationships based on attachment styles and identify their own patterns. They discuss negative sexual scenarios and create positive alternatives using mentalization techniques practiced in previous sessions.

Session 12: Goals

The final session focuses on setting personal and shared goals. Couples identify rigid, flexible, and common traits in each other's personalities. They learn to accept each other's non-negotiable traits and establish agreements on family interactions and boundaries. The session includes a post-assessment and prepares couples for the conclusion of the intervention.

2.4. Data Analysis

Statistical analysis of the research variables was conducted at both descriptive and inferential levels. At the descriptive level, central tendency measures (mean) and measures of dispersion (standard deviation) were used. At the inferential level, mixed ANOVA with one within-group factor (time at three levels: pre, post, and follow-up) and one between-group factor (experimental and control groups) was conducted using SPSS version 25.

3. Findings and Results

In this study, 12 couples participated in each of the experimental and control groups. The mean and standard deviation of the age of women in the experimental group were 33.50 and 4.03 years, respectively, and for men in the same group, they were 36.83 and 4.98 years, respectively. In the control group, the mean and standard deviation of the age of women were 32.67 and 3.74 years, respectively, and for men, they were 35.08 and 4.21 years. The mean and standard deviation of the duration of marriage in the experimental group were 5.42 and 1.38 years, respectively, and in the control group, they were 4.83 and 1.26 years. Seven couples in the experimental group and six in the control group had children. In the experimental group, the education levels of the women were: one with a diploma, six with a bachelor's degree, and five with a master's degree or higher. In the control group, one woman had a diploma, nine had a bachelor's degree, and two had a master's degree or higher. The education levels of the men in the experimental group were: five with a bachelor's degree and seven with a master's degree or higher. In the control group, two men had a diploma, four had a bachelor's degree, and six had a master's degree or higher.

Table 1 presents the means, standard deviations, and Shapiro-Wilk indices of attachment styles in the two groups across the three phases: pretest, posttest, and follow-up.

**Table 1**

*Mean and Standard Deviation of Attachment Styles in Three Phases (Pretest, Posttest, Follow-up)*

Index	Component	Group	Pretest	Posttest	Follow-up
Mean and SD	Secure Attachment	Experimental	13.92 ± 3.13	20.42 ± 4.63	19.13 ± 4.11
		Control	14.46 ± 2.65	15.57 ± 3.60	14.33 ± 3.14
	Preoccupied Attachment	Experimental	18.75 ± 3.78	13.46 ± 2.34	13.94 ± 2.80
		Control	18.25 ± 3.51	16.83 ± 3.33	17.55 ± 3.88
	Fearful Attachment	Experimental	18.21 ± 3.31	13.29 ± 2.66	14.00 ± 3.12
		Control	18.83 ± 3.94	18.38 ± 3.47	17.87 ± 4.02
	Dismissive Attachment	Experimental	17.17 ± 2.99	13.08 ± 2.87	11.92 ± 2.24
		Control	17.72 ± 3.84	16.96 ± 3.91	17.25 ± 3.39

Shapiro-Wilk (p-value)	Secure Attachment	Experimental	0.977 (0.829)	0.946 (0.221)	0.935 (0.126)
		Control	0.914 (0.043)	0.953 (0.322)	0.970 (0.670)
	Preoccupied Attachment	Experimental	0.962 (0.485)	0.928 (0.086)	0.942 (0.179)
		Control	0.932 (0.110)	0.936 (0.136)	0.920 (0.058)
	Fearful Attachment	Experimental	0.941 (0.173)	0.971 (0.695)	0.977 (0.836)
		Control	0.917 (0.051)	0.941 (0.169)	0.904 (0.026)
	Dismissive Attachment	Experimental	0.985 (0.964)	0.952 (0.297)	0.921 (0.060)
		Control	0.957 (0.378)	0.958 (0.398)	0.976 (0.803)

The results in Table 1 show that the mean secure attachment style increased in the experimental group compared to the control group in the posttest and follow-up phases, while the mean scores of preoccupied, fearful, and dismissive attachment styles decreased. In contrast, no similar changes were observed in the control group during the same phases. To test the assumption of normality of data distribution, Shapiro-Wilk values for attachment styles were examined for both groups across the three phases. Table 1 indicates that the Shapiro-Wilk value for secure attachment in the control group ( $p = .043$ ) during the pretest and fearful attachment ( $p = .026$ ) during the follow-up were significant, indicating non-normal distribution in these conditions. However, the significance levels suggest that the deviation was not severe, and given the equal sample size in both groups and the robustness of ANOVA against assumption violations, the results are unlikely to be affected.

To assess the assumption of homogeneity of error variances for attachment styles between groups, Levene's test was used. The results indicated no significant differences in error variances for attachment styles across the groups and phases. This finding confirms that the

assumption of homogeneity of error variances was met. The assumption of homogeneity of covariance matrices of dependent variables was examined using Box's M statistic, and the sphericity assumption was assessed with Mauchly's test.

The analysis revealed that Box's M value for preoccupied attachment ( $p = .021$ ) and dismissive attachment ( $p = .014$ ) was significant, indicating that the assumption of homogeneity of covariance matrices was not met for these variables. Nevertheless, considering the relatively large group sizes and equal participant numbers, this issue can be overlooked. Additionally, the Mauchly's test chi-square value for secure attachment ( $p = .022$ ) was significant, suggesting a violation of the sphericity assumption. Consequently, degrees of freedom were adjusted using the Greenhouse-Geisser correction.

After evaluating and confirming the assumptions, the data were analyzed using repeated measures ANOVA. Table 2 shows the results of the multivariate analysis assessing the effect of the integrated group intervention based on mentalization and the educational package for building a lasting connection on attachment styles.

**Table 2**

*Multivariate Analysis Results for the Independent Variable Effect on Attachment Styles*

Component	Wilks' Lambda	F	df	p	$\eta^2$	Power
Secure Attachment	0.711	9.16	45, 2	0.001	0.289	0.968
Preoccupied Attachment	0.776	6.61	45, 2	0.003	0.224	0.889
Fearful Attachment	0.768	6.78	45, 2	0.003	0.232	0.900
Dismissive Attachment	0.665	11.34	45, 2	0.001	0.335	0.990

The results in Table 2 indicate that the effect of the independent variable on secure attachment (Wilks' lambda = .711,  $\eta^2 = .289$ ,  $p = .001$ ,  $F = 9.16$ ), preoccupied attachment (Wilks' lambda = .776,  $\eta^2 = .224$ ,  $p = .003$ ,  $F = 6.61$ ), fearful attachment (Wilks' lambda = .768,  $\eta^2 = .232$ ,  $p = .003$ ,  $F =$

6.78), and dismissive attachment (Wilks' lambda = .665,  $\eta^2 = .335$ ,  $p = .001$ ,  $F = 11.34$ ) was significant. Table 4 shows the repeated measures ANOVA results explaining the effect of the integrated group intervention on attachment styles.

**Table 3**

*Repeated Measures ANOVA Results for the Independent Variable Effect on Attachment Styles*

Variable	Effects	Sum of Squares	Error Sum of Squares	F	p	$\eta^2$
Secure Attachment	Group Effect	321.01	861.32	17.14	0.001	0.272
	Time Effect	155.04	427.29	16.69	0.001	0.266
	Group $\times$ Time Effect	224.06	929.22	11.09	0.001	0.194
Preoccupied Attachment	Group Effect	169.00	808.08	9.67	0.003	0.174
	Time Effect	184.26	422.15	20.08	0.001	0.304
	Group $\times$ Time Effect	308.29	714.00	8.27	0.001	0.152
Fearful Attachment	Group Effect	367.36	767.94	22.01	0.001	0.324
	Time Effect	160.17	575.46	12.80	0.001	0.218
	Group $\times$ Time Effect	127.60	876.56	6.70	0.002	0.127
Dismissive Attachment	Group Effect	380.25	816.39	21.43	0.001	0.318
	Time Effect	195.51	277.23	32.44	0.001	0.414
	Group $\times$ Time Effect	144.79	649.03	10.26	0.001	0.182

The results in Table 3 show that the group  $\times$  time interaction effect for secure attachment ( $\eta^2 = .194$ ,  $p = .001$ ,  $F = 11.09$ ), preoccupied attachment ( $\eta^2 = .152$ ,  $p = .001$ ,  $F = 8.27$ ), fearful attachment ( $\eta^2 = .127$ ,  $p = .002$ ,  $F = 6.70$ ), and dismissive attachment ( $\eta^2 = .182$ ,  $p = .001$ ,  $F = 10.26$ ) was significant. These findings indicate that the integrated group

intervention based on mentalization and the educational package for building a lasting connection had a significant effect on attachment styles. Table 4 presents the Bonferroni post hoc test results for attachment style scores in both groups across the three phases.

**Table 4**

*Bonferroni Post Hoc Test Results for Attachment Styles*

Dependent Variable	Comparison 1	Comparison 2	Mean Difference	Standard Error	p-value
Secure Attachment	Pretest	Posttest	-3.87	0.76	0.001
	Pretest	Follow-up	-2.54	0.62	0.001
	Posttest	Follow-up	1.33	0.54	0.057
Preoccupied Attachment	Pretest	Posttest	3.35	0.59	0.001
	Pretest	Follow-up	2.77	0.62	0.001
	Posttest	Follow-up	-0.58	0.50	0.736
Fearful Attachment	Pretest	Posttest	2.69	0.60	0.001
	Pretest	Follow-up	2.58	0.72	0.001
	Posttest	Follow-up	-0.10	0.56	1.000
Dismissive Attachment	Pretest	Posttest	2.42	0.58	0.001
	Pretest	Follow-up	2.85	0.50	0.001
	Posttest	Follow-up	0.44	0.54	1.000
Secure Attachment	Experimental	Control	2.99	0.72	0.001
Preoccupied Attachment	Experimental	Control	-2.17	0.70	0.003
Fearful Attachment	Experimental	Control	-3.19	0.68	0.001
Dismissive Attachment	Experimental	Control	-3.25	0.70	0.001

The Bonferroni post hoc test results in Table 4 show that the mean differences in attachment style scores between the pretest-posttest and pretest-follow-up phases were statistically significant, but the differences between the posttest-follow-up phases were not. Additionally, the Bonferroni test results comparing group effects show that the differences in attachment style scores between the experimental and control groups were statistically significant. The integrated group intervention led to an increase in the mean secure attachment style and a decrease

in the mean scores of the other three attachment styles in the posttest and follow-up phases compared to the pretest phase.

**4. Discussion and Conclusion**

The aim of the present study was to determine the effectiveness of integrating a group intervention based on mentalization and the educational package for building a lasting connection on attachment styles in insecure spouses. The findings revealed that this integrated intervention



increased secure attachment and decreased insecure styles (fearful, dismissive, and preoccupied). These results align with the previous works (Fossati et al., 2014; Gilmore & Jorgensen, 2019; Gilmore, 2018; Kasten, 2022; Zarati & Mousavi, 2016). It can be inferred that the foundation laid through mentalization-based education in the intervention protocol enhances couples' recognition of emotions as a precursor to understanding deeper feelings and underscores the necessity of group mentalization therapy for attachment transformation. This approach fosters the capacity for emotional attunement, preparing participants for experiential learning and connecting conversations as structured in the educational package for building a lasting connection. In short, the integration underscores the need for therapy prior to experiential learning.

Furthermore, it can be elaborated that the development of strong and balanced mentalization depends on a compassionate, attentive, and non-threatening understanding of one's mental states by the other partner. The experience of affect mirroring—how a partner responds to emotional reactions—is crucial. Rather than merely reflecting emotions, the partner mirrors feelings in a way that simultaneously conveys validation and an adaptive strategy. Appropriate mirroring helps individuals develop secondary representations of their mental experiences, leading to improved self-control (including attentional and effortful regulatory mechanisms) and emotional regulation. This is because the capacity to reflect on mental states provides the groundwork for regulatory processes that influence interactions with others independently of one's developmental experiences (Fossati et al., 2014).

As individuals engage in new environments (e.g., peers and friends) that promote attention to internal mental states, mentalization can grow and strengthen. From this capacity for mentalization emerges a sense of self and emotional agency, first experienced through significant others, such as a spouse, who provide reflective mirroring. Later, these significant others articulate emotions in words, shaping the individual's emotional world and social interactions through mentalization narratives (Kasten, 2022). A partner's ability to sufficiently mentalize, providing reflective mirroring, is a benefit of having a sensitive spouse. A spouse trained in mentalization can recognize emotional agency and psychological complexity, interpret behavioral cues, and respond appropriately and non-coercively, sustaining this process consistently.

Therefore, a securely attached partner benefits not only from physical proximity but also from the psychological

advantages of emotional accessibility (Fossati et al., 2014). People with secure attachment are more likely to develop and exhibit better mentalization capacity; they are, for example, more adept at understanding beliefs and show greater empathy toward their partner (Bateman & Fonagy, 2019). Thus, when individuals receive appropriate mentalization training during therapy, they become better mentalizers, sensitizing them to experiences of being mentalized and empowering them with greater capacity, creating a positive cycle.

Conversely, consistent or severe failures in reflective mirroring can impair the ability to reflect on oneself and others, resulting in non-mentalizing experiences, known as experiences of the alien self. Unvalidated experiences can feel alien and reinforce insecure attachment (Allen, 2023). While reflective mirroring failures are a part of everyday life, and no one can be entirely sure of the accuracy of their beliefs about another's mind, mismatches in reflective mirroring are inevitable. Therefore, all individuals have unmentalized mental states (Nyberg & Hertzman, 2018). However, this study demonstrated that with proper training, individuals can better understand, accept, and respond appropriately to these failures, enhancing the impact of the educational and experiential components of the building a lasting connection program exponentially.

Moreover, the building a lasting connection program plays a crucial role in marital relationships. It serves as a foundation for developing the ability to share deeper feelings in decision-making, problem-solving, managing differences, and forming a strong relationship. This program emphasizes adult attachment as central to creating a warm, stable, and fulfilling marital relationship. It highlights that adult attachment, as one of the key elements of romantic relationships, is vital in preparing couples for shared life. Successful relationships are built on understanding one another's attachment styles, trust, mutual vulnerability, and emotional connection. Emotional security fosters positive and constructive interactions, whereas insecurity leads to communication breakdowns and, ultimately, relationship dissolution. Understanding attachment during the intervention is key to effective communication with one's partner (Gilmore & Jorgensen, 2019).

## 5. Suggestions and Limitations

It should be noted that the initial selection of participants was based on inclusion criteria, and only the assignment was randomized, which necessitates caution in generalizing the

findings. This study found that mentalization skills could mitigate the negative effects of childhood attachment issues. Therefore, assessing and reinforcing mentalization skills before marriage, especially in stressful environments, could prevent many interpersonal and social issues.

### Authors' Contributions

All authors have contributed significantly to the research process and the development of the manuscript.

### 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. This study obtained ethical approval (code: IR.IAU.SRB.REC.1401.244) before the intervention. Informed consent, confidentiality, and privacy were ensured. Participants were free to withdraw at any time or withhold personal information, with an emphasis on completing all questionnaire items.

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