Original Research

Investigating The Effect Of Education Of Working Mothers In Medical Centers Based On Attachment Theory On Reducing Children's Separation Anxiety Symptoms

Nahid Etesami[1], Fatemeh Payan[2], Azizeh Sharifi Naseri[3*]

1. Master of clinical psychology, Azad University of Qom, Iran. **Orcid:** 0009-0009-7895-019X
2. Master of child psychology and exceptional children, Shiraz University of Research Sciences, Iran. **Orcid:** 0009-0006-9223-4374
3. Master of Clinical Psychology, Islamic Azad University, Science and Research Branch, Tehran, Iran. **Orcid:** 0009-0008-1122-046X

*__Corresponding Author: Azizeh Sharifi Naseri.__ Master of Clinical Psychology, Islamic Azad University, Science and Research Branch, Tehran, Iran. **Email:** zohreh_sharifi_2010@yahoo.com

Abstract

Background: This research aims to determine the relationship between mother's education based on attachment theory (attachment is an emotional bond that people establish with an attachment object that provides security and causes lifelong psychological adjustment) and children's separation anxiety. a state characterized by the feeling of fear of separation and associated with physical symptoms and perceptual and cognitive distortions) has been done.

Method: This research is a semi-experimental type. Pre-test research plan-So the test is with the control group. The studied sample includes 24 female elementary school students whose mothers work in medical centers located in the 2nd district of Tehran, who were selected by random sampling method and were placed in two groups of 12 subjects and controls, and were given the Zanq anxiety test in two stages. have answered and the mothers in the experimental group were trained with a training program based on attachment theory.

Results: The findings of this research were obtained from the covariance analysis method. The average anxiety score for the "pre-test" control group is equal to 30.6, the average of the control group (post-test) is equal to 36.1, the average of the experimental group (pre-test) is equal to 31.2, and the average of the experimental group (post-test) is equal to 6.27 obtained and 12.227P<0.01, F=" showed that there is a significant relationship between education of mothers based on attachment theory and reduction of children's separation anxiety symptoms.

Conclusion: The educational program (based on attachment) presented in this research was aimed at improving the attachment pattern and repairing attachment defects, and the results of this program have shown a significant effect on reducing children's separation anxiety.

Keywords: Separation Anxiety, Working Mothers, Attachment Theory, Medical Centers

Submitted: 1 Jan 2024, Revised: 30 Jan 2024 , Accepted: 21 Feb 2024

[Downloaded from mail.intjmi.com on 2026-11-20]

Introduction

Attachment It is a set of behaviors that maintain the desired proximity with the attachment face will be When a person is in a traumatic situation, it is the time when the most attachment behaviors occur and when the attachment figure has enough support, these behaviors are deactivated [1]. According to the attachment theory, the existence or emotional availability of the caregiver, especially in stressful situations, is the creator of internal action patterns. About yourself as a valuable person, others as reliable people and relationships is important and valuable [2]. According to this theory, children develop internal action patterns about themselves and others based on their experiences and interactions with them. These internal action patterns build primary mental representations about themselves and others and form the basis of the quality of a person's relationships in the future, as a result, people's perception of their attachments plays a vital role in psychological and psycho-social functioning. He plays [3].

According to attachment theory, the quality of parent-child attachment strongly affects the emotional and social development of the child. Positive communication with a sensitive and responsive caregiver plays a vital role in healthy adjustment. In fact, a person's attachment style is the product of his real experiences regarding sensitivity, responsiveness and the active and regular presence of the object of attachment (usually the mother), during the years of infancy, childhood and adolescence [4].

Anxiety disorders are among the common disorders of children and adults that have an unpleasant effect on the quality of life, especially emotional functions. Fear, anxiety and worry are terms that are often used interchangeably [5]. Anxiety is an unpleasant emotional state related to the anticipation of unfortunate events that are not certain to happen. Anxiety is a state that is determined based on different degrees of fear and worry and leads to a painful feeling that is associated with a current traumatic situation or with the expectation of danger related to an uncertain object [6]. In addition to the harmful effect on the child's social and academic performance, anxiety can have more serious long-term consequences. Many children who suffer from separation anxiety disorders suffer from this disorder for the rest of their lives. Additionally, other serious disorders, such as major depressive disorder and substance abuse, are rooted in primary anxiety. Research findings in adults suffering from separation anxiety disorders show that most of these people believe that their anxiety is rooted in childhood [7]. The reduction of separation anxiety depends on various factors such as biological preparations, family framework, early trauma and cognitive learning process and relationships with peers. In addition, each of these factors can play an effective role in aggravating anxiety or causing separation anxiety disorders in children and adults [8].

In these cases, parents of children behave differently. These behaviors may be predictable or unpredictable, stable or unstable, depriving or satisfying, protective or indifferent, interested or disinterested, loving or violent, in any The child's face identifies with his parents and internalizes their values. These behaviors and methods used by parents to raise their children play an important role in children's psychopathology and development [9]. It is almost impossible to discuss any of the children's problems without considering their attitudes, behaviors and parenting methods. The parenting style of parents, which is created through criticism, shame, or extreme care, conveys the message to the child that he is incapable, incompetent, and ineffective in social relations, and considers others to be critical of his work and the reason for his isolation [10].

Education of mothers based on attachment styles is education based on secure attachment, including 6-session training programs derived from various researches in therapeutic methods using attachment theory. Based on that, the participants (mothers) are given the desired training. This training is based on the assumption that anxious

[Downloaded from mail.intjmi.com on 2026-11-20]

children have a history of perceived or actual attachment deficits that have damaged the trust between them and their parents. The main goal in this method is to restore and establish trust and fairness between family members. This is achieved by modifying attachment experiences, which causes changes in the daily interactions of family members as well as children's schemas about themselves and others [11].

Shayeq et al. (1400) research under the titlePrediction of child separation anxiety based on mother's attachment styles and attachment disorder in first and second grade female students of primary schools in Isfahan city.The results of Pearson's correlation coefficient showed that parents' education and mother's secure attachment scores have an inverse and significant relationship with separation anxiety symptoms. This means that parents' low education and mother's secure attachment scores are associated with increased separation anxiety symptoms. It was also observed that mother's insecure and avoidant attachment styles, mother's psychopathology indicators such as anxiety, depression, interpersonal sensitivity, aggression and pessimism have a direct and significant relationship with the child's separation anxiety symptoms. This means that the increase in insecure and avoidant attachment tendencies, high scores of anxiety, depression, interpersonal sensitivity, aggressiveness and pessimism of the mother, high scores of child attachment disorder are associated with increasing separation anxiety symptoms of female children.

During a research, Cheragiani (1400) investigated the predictive role of early maladaptive schemas and mother's attachment styles in predicting children's anxiety. The findings showed that there is a significant relationship between early maladaptive schemas and mother's attachment styles with children's anxiety. The results of multiple regression analysis also revealed that59The percentage of the total variance of children's anxiety is explained by the primary maladaptive schemas and mother's attachment styles. The findings of this research show that the primary maladaptive schemas and attachment styles of the mother have a significant contribution to children's anxiety [13].

Pourkhosravani and Naimi (2019) in their researchInvestigated the relationship between mental health dimensions and attachment styles (secure, anxious and avoidant) among mothers in Qom province.The results of the analysis of variance showed that in the subscales of physical, anxiety and social functioning, there is no significant difference between the subjects' scores in different attachment styles, and in order to investigate the difference in the depression variable among people with three attachment styles, Kruskal-Wallis non-parametric test was used, and the results indicate that the hypothesis of the research about the depression subscale is not significant, and finally, for mental health, there is a significant difference between the styles of attachment styles and the scores of the avoidant style are significantly higher than other styles. . This means that the avoidant style has less general health than other styles and the research hypothesis about the mental health variable is confirmed [14].

Diben et al. (2017) in their research have mentioned the effect of modifying attachment styles in reducing the damage caused by disorders and negative emotions and emphasized on creating a safe attachment style and teaching related patterns [15].

Jones et al. (2014)During his research, he showed that mothers who have an anxious and avoidant attachment style have more problems in regulating their emotions. In turn, emotional dysregulation predicted more anxiety, more violence, and less maternal support response to negative emotions in adolescents. More avoidance was also directly predictive of more violent maternal response, and however, defining the emotion regulation component is a difficult task [16].

Based on what was said and the importance of the subject, the present research with the purpose Investigating the effect of education of working mothers in medical centers based on attachment

[Downloaded from mail.intjmi.com on 2026-11-20]

theory on reducing children's separation anxiety symptoms.

Methods

This research is a semi-experimental type. Pre-test research plan– So the test is with the control group. The statistical population of the current research is the fourth, fifth and sixth grade female students of the 2nd and education region of Tehran in the academic year 1400-1401, who have mothers working in medical centers. The sample group is 24 people who were randomly divided into two groups of 12 people and placed in two experimental groups and control group. The method of selecting 24 people was that first, Tehran elementary schools were selected according to their availability and willingness to cooperate, and then all fourth, fifth, and sixth grade students in the school whose mothers worked in medical centers were given an anxiety test. A questionnaire was taken and after scoring, 24 students with the highest anxiety score were selected and randomly placed in two groups of 12 people.

The tools used to measure the variables in the pre-test and post-test phases were:

Zong Anxiety Self-Measurement Scale (SA.S): It has 20 items. Diagnostic Criteria (SAS) in this scale has 5 emotional symptoms and 15 physical symptoms. This scale is used to assess the level of anxiety that a person feels in different situations. Zanq anxiety self-measurement scale can be used in clinical and research situations. The structure of the scale (SAS) is such that in this scale, people with less anxiety get a lower score and those with more anxiety get a higher score. In this scale, the maximum score is 80. The score of each test is equal to the sum of the scores or the minimum values obtained from each of the questions and the level of anxiety of each answer sheet is equal to the raw score (the score divided by 80 times 100). To calculate the validity of the SAS scale, the coefficient method has been used to evaluate the degree of internal correlation or homogeneity of the questions. Statistical analysis of SA results

In order to check the data using the descriptive statistics method (mean, standard deviation, etc.) and to analyze the data in the field of inferential statistics using the covariance analysis methodF is used.

Results

The descriptive statistics of the research are as described in the following tables:

Tables 1 and 2 show the mean and standard deviation of the scores of the subjects of the control and experimental groups in the pre-test and post-test.

By considering the above indicators, it is clear that the mean of the separation anxiety test of the control group is 30.6 and the mean of the separation anxiety of the experimental group is 36.1, which means that the difference between the means is not much.

The variance of the control group is 0.046 and the variance of the experimental group is 0.077, which shows a big difference. The standard deviation in the control group is 0.0278 and the standard deviation in the experimental group is 0.215, which is not much different.

Considering the above indicators, it is clear that the mean of the post-test of separation anxiety of the control group is 31.2 and the mean of the post-test of the separation anxiety of the experimental group is 27.6, which shows that there is a significant difference in the mean of the experimental group according to the previous level of the pre-test. Separation anxiety is reduced in this group. However, in the control group, there was no significant difference in the mean of the post-test compared to the mean of the pre-test.

In this research, the data were analyzed using covariance analysis (ANCOVA) and F test have been analyzed and the results are as follows:

Considering the need for covariance assumptions, the homogeneity of the variances of the subjects' scores in the control and experimental groups has been investigated through Levine's test to use the covariance test.

The results of the above table show that the assumption of homogeneity of the variances of the

[Downloaded from mail.intjmi.com on 2026-11-20]

scores of the two groups is confirmed for all the subscales and also for the entire test. Therefore, the variance of scores of two groups is equal to each other.

Research hypothesis: group training of mothers working in medical centers based on attachment theory is effective in reducing children's separation anxiety.

Table 4. The results of covariance analysis based on the effect of education of working mothers in medical centers based on attachment theory on reducing children's separation anxiety in experimental and control groups.

F calculated for the difference between the post-test scores of two groups by combining the pre-test scores is equal to 12.227, which is significant at the confidence level of 0.99 ($p<0.01$). So, it can be concluded that the education of working mothers in medical centers based on attachment is effective in reducing children's separation anxiety at a confidence level of 0.99, and the null hypothesis is rejected in this regard.

According to Table 5, the adjusted average of the post-test scores in the experimental group is lower than the adjusted average of the post-test scores in the control group, which indicates the effect of training working mothers in medical centers on the basis of attachment in reducing children's separation anxiety.

Discussion

The purpose of this study is to investigate the effect of education of working mothers in medical centers based on attachment theory on reducing children's separation anxiety symptoms. The research findings are presented as follows:

By implementing the educational program based on the attachment theory in this research, it was found that the hypothesis that the training program for mothers working in medical centers based on the attachment theory is effective in reducing separation anxiety is confirmed. According to the calculation resultsf The difference in the post-test scores of the two groups was determined by covariance analysis based on the effect of mother's education based on the theory on reducing children's separation anxiety in the experimental and control groups. The calculated $F=12.227$ showed that the difference in the mean post-test scores of the two control and experimental groups is significant at the confidence level of 0.99 ($P<0.01$, so it can be concluded that the education of working mothers in medical centers is based on attachment at the confidence level 0.99 is effective in reducing children's separation anxiety. The results are consistent with the findings of Shaik et al. [12].

In this program, mothers were taught the following methods to improve the attachment pattern:

First, in order to create appropriate behavioral changes (responsiveness, availability and behavioral stability, etc.), mothers were prepared and motivated. Then, with proper education and recognition of open and supportive relationships, which is a sign of a secure attachment relationship, mothers are taught to implement appropriate behavior that makes the child confident that the parent will not be separated, and emotions are directly exchanged and Increase the ability of the child and parent to empathize and pay attention to each other's views. A beneficial relationship requires the capacity for negotiation and flexibility in problem solving, which in turn requires freedom for different aspects of the problem and the development of creative ideas about how to fit them together.

Conclusion

Considering the strong need to repair attachment defects in childhood and adolescence, the educational program (based on attachment) presented in this research has been aimed at improving the attachment pattern and repairing attachment defects, and the results of the implementation of this program have had a significant effect on It has shown a reduction in children's separation anxiety. Such problem-solving practices occur in an emotionally safe space, where the goals of both parents and children are directly communicated and mutually understood. This type of problem solving depends

[Downloaded from mail.intjmi.com on 2026-11-20]

on the caregiver's ability to clearly communicate their own expectations and empathize with the child's needs.

One of the limitations of the research is the non-cooperation of some mothers in the implementation of the plan. In order to conduct future researches, it is suggested to study the effect of fathers' education on the basis of attachment theory and compare it with the results of this research. Also, the effect of parent training based on attachment theory on reducing other mental disorders should also be investigated.

Acknowledgment:

None

Funding:

None

Authors Contributions:

All authors contributed toward data analysis, drafting and revising the paper and agreed to be responsible for all the aspects of this work.

References

1. Ayhan F, Teze S, Türkmen AS. The relationship between the presence of depression and attachment styles of mothers with autistic children. The American Journal of Family Therapy. 2022;50(2):131-43.
2. King AA, Russon JM, Mensinger JL, Jin B. Parental Psychological Control, Attachment Insecurity and Body Shame: How Relational Factors Impact Disordered Eating. Journal of Child and Family Studies. 2022;31(9):2545-55.
3. Venta A, Galicia B, Bailey C, Abate A, Marshall K, Long T. Attachment and loss in the context of US immigration: Caregiver separation and characteristics of internal working models of attachment in high school students. Attachment & Human Development. 2020;22(4):474-89.
4. Thompson RA, Simpson JA, Berlin LJ. Taking perspective on attachment theory and research: Nine fundamental questions. Attachment & human development. 2022;24(5):543-60.
5. Conrad R, Forstner AJ, Chung ML, Mücke M, Geiser F, Schumacher J, Carnehl F. Significance of anger suppression and preoccupied attachment in social anxiety disorder: a cross-sectional study. BMC psychiatry. 2021;21:1-9.
6. Jahantigh MR, Jahantigh Haghighi M, Jahantigh Haghighi M, Jahantigh F. The Effect of Reiki Therapy on Pain Control, Anxiety, Stress: A Systematic Review of Clinical Trial Studies. Complementary Medicine Journal. 2021;11(2):140-53.
7. Gasholi M, Mohammad Panah Ardakan E, Chobforushzadeh A. Effectiveness of group schema therapy on social anxiety and its specific symptoms in blind and combination people. Journal of Ardabil University of Medical Sciences. 2019;20 (4):532-519.
8. Nielsen SK, Lønfeldt N, Wolitzky-Taylor KB, Hageman I, Vangkilde S, Daniel SI. Adult attachment style and anxiety–The mediating role of emotion regulation. Journal of Affective Disorders. 2017;218:253-9.
9. Zdolska-Wawrzkiewicz A, Chrzan-Dętkoś M, Bidzan M. Maternal attachment style during pregnancy and becoming a mother in Poland. Journal of reproductive and infant psychology. 2018;36(1):4-14.
10. Cooke JE, Racine N, Plamondon A, Tough S, Madigan S. Maternal adverse childhood experiences, attachment style, and mental health: pathways of transmission to child behavior problems. Child abuse & neglect. 2019;93:27-37.
11. Diamond GS, Lebow JL. Attachment-based family therapy for depressed and anxious adolescents. Handbook of clinical family therapy. 2005;29:17-41.
12. Shayeq S, Amiri S, Mehrabi HA. Prediction of child's separation anxiety based on mother's attachment styles and attachment disorder in first and second grade female students of primary schools in Isfahan city. Studies in Psychology and Educational Sciences (Iran Modern Education

[Downloaded from mail.intjmi.com on 2026-11-20]

Development Center). 2020;34(7):798-809.
13. Cheraghiani F. The predictive role of early maladaptive schemas and mother's attachment styles in predicting children's anxiety. New Advances in Behavioral Sciences. 2020;6(54):242-252.
14. Pourkhosravani M, Naimi M. Investigating the relationship between mental health dimensions and attachment styles (secure, anxious and avoidant) among mothers in Qom province. New Achievements in Humanities Studies. 2019;33(3):127-135.
15. Dibben C, Playford C, Mitchell R. Be (ing) prepared: Guide and Scout participation, childhood social position and mental health at age 50—a prospective birth cohort study. J Epidemiol Community Health. 2017;71(3):275-81.
16. Jones JD, Brett BE, Ehrlich KB, Lejuez CW, Cassidy J. Maternal attachment style and responses to adolescents' negative emotions: The mediating role of maternal emotion regulation. Parenting. 2014;14(3-4):235-57.
17. Yin B, Peng B, Luo Y, Fan S, Xiao T, Zou X, Dong H. Efficacy of Repetitive Transcranial Magnetic Stimulation Combined with Botulinum Toxin Type A for Benign Essential Blepharospasm Patients Accompanied by Anxiety and Depression. Neuropsychiatric Disease and Treatment. 2021:2707-11.

[Downloaded from mail.intjmi.com on 2026-11-20]

Tables:

Table 1- The mean and standard deviation of the scores of the subjects of the control and experimental groups in the pre-test

	variable	Number	average	the middle	At least	maximum	Variance	The standard deviation	Standard error
Control group pre-test	anxiety	10	30.6	31	20	44	0.077	0.268	0.088
Pre-test of the experimental group	anxiety	10	36.1	30.5	24	67	0.046	0.215	0.068

Table 2. The mean and standard deviation of the scores of the subjects of the control and experimental groups in the post-test

	variable	N	average	At least	maximum	Variance	SD	The standard deviation	Standard error
After the control group test	anxiety	10	31.2	30.5	21	46	13.01	3.608	1.141
After the control group test	anxiety	10	27.6	26	31	44	10.93	3.307	1.046

Table 3. The results of Levin's test

scale	N	Df	F(df,1)	Error level
anxiety	10	1	0.115	0.738

[Downloaded from mail.intjmi.com on 2026-11-20]

Table 4. The results of covariance analysis based on the effect of education of working mothers in medical centers based on attachment theory on reducing children's separation anxiety in experimental and control groups

Source	sum of squares	Degrees of freedom(df)	Average of squares	F	p	Effect size
examination Group	724.195	1	724.195	227.12	0.03	0.418
error	133.272	17	008.16			

Table 5. Adjusted mean

group	average	The standard deviation
the experiment	221.26	286.1
Control	679.32	286.1

[Downloaded from mail.intjmi.com on 2026-11-20]