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A comparative study on the predictive influence of family function and attachment style in foreseeing externalized behavioral problems in children

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Abstract

Introduction: The present research aimed to foresee externalization behaviors based on attachment and family function in the students of elementary schools located in Tehran.

Materials and Methods: The sample of this multivariate correlation model consisted of 341 elementary students of Tehran along with their parents which were selected via a multistage random sampling method in 2017-2018. The research instrument of this study including questionnaires of family function, child behavior and attachment analysis. The results were analyzed through multiple regression analysis.

Results: The findings of this study show that attachment and family functionality had significant relationship with externalizing behaviors ($P<0.05$ and $P<0.01$). Furthermore, attachment anxiety, self-control and relationships had the foremost role in the predicting the behaviors. Attachment and family function were able to predict extrinsic behavior (16% and 6% respectively).

Conclusion: It seems that attachment and family function were able to predict extrinsic behavior in children.

Keywords: Attachment style, Behavioral problems, Children, Family function

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Introduction

During the recent years, there has an emerging preference towards diagnosing children that are at the risk of behavioral complications. This inclination is due to the fact that children who experience internalized behaviors such as aggression will ultimately face more behavioral disorders in their following years into adolescence (1). Moreover, it has been observed that if such disorders and problems initiate in the earlier years, the intensity of such destructive behaviors will be much severe than behavioral issues occurring in the later years (2).

Due to the fact that behavioral issues appear early and quickly stable within the personality of a child, recognizing the fundamentals that are responsible for such disorders are necessary. One of the classifications of childhood disorders are externalized behaviors including anti-social, aggressive and destructive actions (3). Such disorders are among the most prevalent issues of childhood years (4) and are considered as a potential risk for future delinquency (5).

Researchers have understood that behavioral disorders in children reflect issues within their families and there is a reasonable relationship between such disorders and the non-supportive actions of their parents (2).

According to the ecological models of evolution, the most significant component in the occurrence of excitedly and behavioral disorders in children can be traced back to family and household members- preferably the parents-and the significant relationship between the members. Hence, the personality of both parents, their psychological hitches and social interactions can all affect the overall behavioral aspects of a child in regard to psychological difficulties and impairment (6).

Furthermore, attachment deliberated as a one of the structures for creating reformation and personality is considered vital in the forming the social patterns of a child. According to Bowlby theory, humans are born with a psychological and biological system called "attachment". This system has an adaptive value and inclines mankind into becoming closer with certain people in their lives with an affectionate emotion. In the other words, the action of when children run towards a loved one during times of fear or distress that ultimately increases the chances of survival and well-begin. The styles and manners of attachment partakes an important role in the occurrence of psychological suffering and behavioral disorders among children (7). Moreover, the quality of a relationship between an infant or child with the initial caretakers of their lives is measured by the degree of attachment and this feature is among the most substantial rudiments required for a healthy psychological life and is meaningfully influential in his/her mental well-being (8). According to Bowlby theory (9), many of psychological and personality disorders in children are due to the absence of motherly love or the presence of an unattached relationship; he further explains that with the derangement of attachment between a child and his/her parents, generalized anxiety and untruthfulness will take place that will later result in psychological health issues for the child. The research studies accomplished by Brant, Mikulincer and Shaver (10); Bumariu and Kerns (11); Nofle and Shaver (12); Korver, Meijer and Haan (13); and Marely and Muoran (14) all reflect on the mentioned aspect that unsecure attachment styles are a source of harm and detriment.

The research aimed to predict externalized behavioral issues according to the components of family and attachment styles by discerning the predictive relationships.

Unfortunately, despite the significant role of family and attachment and its importance in maintaining a healthy psychological life, little research has been accomplished in this area among Iranian scholars. Among the minor studies carried out with a similar topic to this paper, none have clearly answered the main question of this research. Hence, this research aimed to predict the psychological disorders in children by analyzing attachment styles and the role of family with the aid of statistical methods.

Materials and Methods

This research approved by the Islamic Azad University of Roudehen that aimed to study the predictive elements of externalized behavioral disorders according to the family function and attachment styles.

The statistical population for this research consisted all the elementary pupils of elementary schools in Tehran during the 2017-2018 academic year (560000 persons) and their families. The final sample concluded 341 students (175 girls and 166 boys) which were selected via a multi-stage cluster sampling method. Firstly, Tehran is divided into five areas (south, north, east, west and central) next two regions from each area is randomly chosen and from each region three elementary schools are selected and from this selection a class is chosen indiscriminately. The inclusion criteria concluded: general consent for entering the study and having disorders in the Child Behavior Checklist (CBCL) while non-fulfilled the questionnaire considered as exclusion criteria. In regard to ethics, participating in the study was voluntary and volunteers were not asked for their names and it was assured that they would become aware of the results of the research.

Research instrument

A) *Family Assessment Device*: This research tool was first presented by Epstein, Baldwin and Bishop in 1983 and its main aim is to

measure family function. This research tool consists of a questionnaire containing of 60 questions in regard to family function based on the McMaster Model that defines six features of family issues including problem solving, connections, roles, affectionate participations, emotional associations and behavioral control. Also, a seventh feature of "general output of family" is added. Although the current questionnaire consists of 60 questions, initial research was based on a 53 question basis with 7 added questions (15). In terms of reliability analysis, the questionnaire has an alpha subscale in a range of 0.72 to 0.92 which is considered acceptable. Apart from the general subscales, six other subscales are independent and have concurrent and predictive validity. Moreover, this research tool has the power to discriminate between clinical and non-clinical families; hence all seven subscales are valid for acknowledged groups. For each entry, participants can choose from completely agree, agree, disagree and completely disagree. Answers are scored from 0 to 2 points and a higher score indicates an unhealthy function. In order to detect the score of each scale, the mean of that scale is calculated then the scores of each scale is added and divided by the number of entries; therefore, the score of each scale is between 0 (healthy) and 2 (unhealthy) (16).

B) *The Child Behavior Checklist (CBCL)*:

The parents complete this checklist to detect emotional and behavioral problems in children and adolescents. It can be used in individuals aged 4 to 18 years. It is based on two categories including: internalized behavioral disorders (anxiety- anti-sociality, depression and physical distress), externalized behaviors (aggressiveness and rule-breaking acts) and general behaviors (attention, thought and social issues) (17). The CBCL is one of the most used and

complete research tools which are available for understanding child disorders and it has high validity and reliability (18). In regard to the standardization of this checklist for the Iranian population, the internal consistency for internalized disorders scale is 0.88, for rule-breaking acts is 0.67 and for aggressive behavior is 0.87. The reliability of the pilot test (during a 5-8 week span) showed a correlation coefficient at 0.05 with a range of 0.97 (19). In this research, the internal consistency coefficients are 0.91, 0.89 and 0.77 for the externalized disorders, subscales of aggressiveness and breaking rules, respectively.

C) *Attachment Style Questionnaire by Collins and Read*: In 1990, Collins and Reed created the Revised Adult Attachment Questionnaire (RAAS) based on Hazan and Shaver attachment style questionnaire. Initially the RAAS questionnaire consisted of 21 entries which reduced to 18. Collins and Reed believed that their questionnaire had the reliability as 0.80. Talaian and Vazpur in 2003 reported its reliability as 0.95. There are three dimensions in this questionnaire: Close style (A): which correlates with ambivalence attachment style, Depend style (B): which correlates

with secure attachment style, Anxiety style (D): which dissociates with avoidance attachment style. The scoring for this questionnaire is based on a Likert range of totally disagree to totally agree from 0 to 4 (20).

In order to carry out this research, all the three mentioned questionnaires were distributed among the parents of elementary school pupils and the results are analyzed statistically. Furthermore, an interview was arranged with parents for answering the semi-structured designed questions.

Data is analyzed according to a multiple regression analysis in AMOS and SPSS 22 statistical software.

Results

Table 1 shows the correlation matrix for the variables of this research. According to this table, externalized disorders has a significant correlation with the predictive variables of family function (problem-solving, connections, roles, effective response, emotional struggle and behavior control) and attachment style (secure, anxiety and avoidance) with the range of 0.01 and 0.05.

Table 1. Correlation matrix for the variables of the research

		Family function	Problem Solving	Connections	Roles	Effective response	Emotional struggle	Behavior control	Secure	Avoidance	Anxiety	Externalized disorders
Family function	Pearson Correlation	1	.84**	.825**	.532**	.894**	.844**	.87**	.12*	.010	.28**	.18**
	Sig (2-tailed)		.000	.000	.000	.000	.000	.000	.02	.855	.000	.001
Problem solving	Pearson Correlation	.843**	1	.771**	.464**	.827**	.741**	.81**	.17**	.029	.17**	.28**
	Sig (2-tailed)	.000		.000	.000	.000	.000	.000	.001	.588	.002	.000
Connections	Pearson Correlation	.825**	.77**	1	.461**	.831**	.798**	.82**	.18**	.071	.30**	.135*
	Sig (2-tailed)	.000	.000		.000	.000	.000	.000	.001	.192	.000	.012

Roles	Pearson Correlation	.532**	.46**	.461**	1	.492**	.548**	.51**	.101	.022	.23**	.129*
	Sig (2-tailed)	.000	.000	.000		.000	.000	.000	.061	.684	.000	.017
Effective response	Pearson Correlation	.894**	.83**	.83**	.492**	1	.821**	.84**	.098	.010	.28**	.12*
	Sig (2-tailed)	.000	.000	.000	.000		.000	.000	.071	.858	.000	.021
Emotional struggle	Pearson Correlation	.844**	.74**	.798**	.548**	.821**	1	.78**	.111*	.027	.33**	.19**
	Sig (2-tailed)	.000	.000	.000	.000	.000		.000	.040	.619	.000	.000
Behavior control	Pearson Correlation	.869**	.81**	.82**	.515**	.845**	.78**	1	.136*	.005	.24**	.15**
	Sig (2-tailed)	.000	.000	.000	.000	.000	.000		.012	.928	.000	.004
Secure	Pearson Correlation	.122*	.17**	.180**	.101	.098	.111*	.136*	1	.36**	.001	.16**
	Sig (2-tailed)	.024	.001	.001	.061	.071	.040	.012		.000	.98	.002
Avoidance	Pearson Correlation	.010	.029	.071	.022	.010	.027	.005	.36**	1	.073	.116*
	Sig (2-tailed)	.855	.588	.192	.684	.858	.619	.928	.000		.178	.031
Anxiety	Pearson Correlation	.278**	.17**	.303**	.227**	.280**	.329**	.24**	.001	.073	1	.38**
	Sig (2-tailed)	.000	.002	.000	.000	.000	.000	.000	.985	.178		.000
Externalized disorders	Pearson Correlation	.185**	.28**	.135*	.129*	.125*	.187**	.15**	.16**	.12*	.38**	1
	Sig (2-tailed)	.001	.000	.012	.017	.021	.000	.004	.002	.031	.000	

*. Correlation is significant at the 0.05 level (2-tailed).
 **. Correlation is significant at the 0.01 level (2-tailed).

Table 2 shows the coefficient correlation scale between the variables of attachment and externalized behaviors is 0.41 which shows that there is a medium correlation between all the predictive variables and the criterion variable (externalized behaviors);

also, the adjusted r-squared is equal to 0.16 that shows 16% of all the changes of externalized behaviors is related to attachment style.

Table 2. Correlation coefficients in the regression analysis

Model	Correlation	Squared Correlation	Adjusted Squared Correlation	Standard Error Estimation
1	0.41*	0.17	0.16	6.86

* Criterion: externalized behavioral disorders; predictive: secure, avoidance and anxiety attachment

Table 3 shows that the F-value is significant in model 1 with an error smaller than 0.01. This is interpreted that the regression model of the research consists of three predicative

variables and one criterion variable indicating a good model and the independent variable can predict the externalized behavioral disorders.

Table 3. Analysis of Variance (ANOVA) for externalized behavioral disorders

Model	Sum of squares	df	Mean of squares	F	Sig.	
1	Regression	3277.04	3	1092.34	23.15	0.000*
	Remaining	15997.38	339	47.19		
	Total	19274.42	342			

* Criterion: externalized behavioral disorders; predictive: secure, avoidance and anxiety attachment

Table 4 demonstrates that the scales of secure, avoidance and anxiety attachment are significant at 2.71, 4.8 and 7.3 respectively. The beta values are 0.15 (decrease), 0.12 (increase) and 0.37 (increase) correspondingly. In other words, for each unit of change in the variables of

secure, avoidance and anxiety there are -0.15, 0.12 and 0.37 changes in the externalized behavior variable; hence, among the attachment styles, the anxiety attachment has the most role in externalized behaviors.

Table 4. Regression coefficient for predictive variables for predicating externalized behavioral disorders

Model	Standard coefficient		Non-standardized coefficient	t	Sig.
	B	Standard error	Beta		
Control	0.79	2.1		0.37	0.7
Secure	0.38	0.14	-0.15	2.71	0.005
Avoidance	0.48	0.1	0.12	4.8	0.003
Anxiety	0.66	0.09	0.37	7.3	0.000

* Criterion: externalized behavioral disorders

The correlation coefficient between the variables of family function and externalized behavioral disorders is 0.28 which indicates the little correlation between all the predictive variables and the criterion variable (externalized behavioral disorders). Also, the adjusted r-squared is equal to 0.6 that shows 6% of all the changes of externalized behaviors is related to the family function variable.

Table 5 shows that the F-value is significant in model 1 with an error smaller than 0.001. This is interpreted that the regression model of the research consists of seven predicative variables and one criterion variable indicating a good model and the independent variable can predict the externalized behavioral disorders.

Table 6. Analysis of Variance (ANOVA) for externalized behavioral disorders

Model		Sum of squares	df	Mean of squares	F	Sig.
1	Regression	1195.41	3	170.7	4.2	0.000*
	Remaining	13531.23	335	40.39		
	Total	14726.64	342			

*Criterion: externalized behavioral disorders; predictive: behavior control, roles, problem-solving, emotional struggle, connections, effective response, family function

Table 7 shows the regression coefficient for predictive variables (family function) for

predicating externalized behavioral disorders.

Table 7. Regression coefficient for predictive variables (family function) for predicating externalized behavioral disorders

Model	standard coefficient		Non-standardized coefficient	t	Sig.
	B	Standard error	Beta		
Control	8.6	2.35		3.65	0.000
Problem-solving	3.1	1.2	0.2	1.94	0.04
Connections	4.2	1.3	3.1	3.23	0.01
Roles	4.1	1.4	3.08	2.92	0.01
Effective response	2.04	1.01	1.2	2.01	0.02
Emotional struggle	3.04	1.6	2.2	1.9	0.03
Behavior control	4.48	2.4	3.1	1.86	0.04

Discussion

The findings of this research suggest that the two variables of family and attachment style can predict externalized behaviors in children which is in accordance with the findings of Pakdaman et al. (21), Khanjani et al. (22), Baradaran Rezai, Sedaghat and Fathiazad (23), Satorian, Tahmasian and Ahmadi (24), Anola, Stattin and Nurumi (25) and Zu, Farver and Zhang (26). In further clarification of the results, it can be mentioned that one of the significant features in externalized behavioral disorders is family variables especially attachment style between mother and child (27). Family has the first and most important influence in a child's life. From their first moments of life, children depend on parents and family to protect them and provide for their needs; apart from this children's initial personality takes place within the family. According to psychologists' instances, behavioral disorders can be traced back to family and to the emotional and attachment bond between the mother and child. Among the family members, mother is the first member who encounters by the infant; hence, she plays an imperative role in nurturing her child in term of psychological and emotional features and she is the center for either healthiness or behavioral disorders of the child. The researchers showed that externalized behaviors in children have a close relationship with the problems and issues regarding parents and the attachment methods in children (28).

In this sense, Gimpel and Holland (29) state that creating an unsecure attachment, lack of responsibility and harsh punishments can severely increase the chances of externalized behavioral disorders. In the other words, the parents of children exposed to externalized behavioral disorders are more strident and have inclination toward an anxious and unsecure attachment style (30). Many

studies show that there is negative relationship between unsecure attachment to parents with externalized behavioral disorders such as theft, drug use, criminal acts, aggressiveness, dangerous acts and internalized behaviors such as anxiety and depression (31). The findings of Muris and Meesters study (32) are different to the findings of this study. Muris and Meesters believe that the two variables of attachment style and parenting methods have a considerable role in creating internalized signs and the parenting methods have the most influence in predicting externalized behaviors. Hence, it appears that the main reason for such variance is related to adolescent cases of Muris and Meesters' research. This age group tends to present themselves more positively than reality and eliminate any sense of unsecure attachment; furthermore, the adolescents presented the parenting methods themselves (32).

Another matter of consideration is the loving, ethical and supportive role of parents towards their children. This phenomenon can ease the ability of children in controlling their negative feelings and becoming more adjustable in upcoming situations; moreover, it can have decreasing effect in the development of harmful disorders such as aggressiveness and anxiety (33). On the contrary, deleterious and controlling parenting can be harmful for children and can diminish the independency of the child and welcome hostile behaviors and apprehension (34).

Due to the fact that this research was carried out on elementary students of Tehran schools and data is based on the completed questionnaires (filled out by others); there could be inaccuracy in such responses, hence, generalizing the results to other similar groups should be done cautiously.

Conclusion

Both variables of family function and attachment styles can predict the externalized behavioral problems in children, although the attachment style is a stronger predictor.

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