

Predicting children's internalized and externalized behavioral problems based on parenting styles and maternal stress

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ABSTRACT

Background and objective: The present study aimed to predict internalized and externalized behavioral problems in children based on parenting styles and maternal stress.

Methodology: The present research was descriptive and correlational. The statistical population of the study consisted of all mothers of primary school students in Shiraz, who were studying in the academic year 2018-2019. From the statistical population, 250 people were selected using the multi-stage cluster random sampling technique. These mothers were asked to answer the Baumrind Parenting Style and Dimensions Questionnaire (1991-PSQD), Abidin Parenting Stress Index (PSI-1990), and Child Behavior Checklist (CBCL) by Achenbach. The obtained data were analyzed using the Pearson correlation coefficient and hierarchical regression analysis.

Findings: Correlation coefficients showed that there was a negative relationship between authoritarian parenting style and maternal stress and internalized and externalized behavioral problems. Findings also showed that there was a positive significant relationship between the permissive and authoritative parenting styles and internalized and externalized behavioral problems (0.01). The results of the multivariate regression analysis showed that the permissive parenting style, the authoritative parenting style, and maternal stress could predict externalized problems. Furthermore, the findings also disclosed that the authoritarian style, the permissive style, and maternal stress could predict internalized problems (0.01).

Keywords

Parenting Styles, Maternal stress, Internalized, and Externalized Behavioral Problems.

Introduction

Childhood is one of the most important periods in which an individual's personality is constructed and formed. Most post-children behavioral disorders have resulted from a lack of sufficient attention to the sensitive period of childhood and lack of proper guidance of the growth and development process occurring in this period. This negligence leads to incompatibility with the environment and the occurrence of various deviations in various dimensions for the child during childhood and adulthood (De Genna, Natacha, Dale, 2006). Therefore, it is essential to make a serious effort to completely know the children and to promote their physical and psychological health.

One of the issues related to childhood that has become one of the most significant topics in psychology and psychiatry for the last 25 years is the issue of behavioral problems (Lubenko and Sebre, 2015). During childhood and adolescence, behavioral problems have many negative consequences, such as academic, social, behavioral, and health issues. All of these consequences impact one's family and society (Kessler, Tatchiu, Demler, Walters, 2005). Behavioral problems refer to conditions in which one's emotional and behavioral responses at school conflict with age, cultural, and ethnic norms. Such issues can negatively affect one's academic performance, self-care, social relations, and personal adjustment as well. These issues must occur in at least two different situations. However, two

of the most important behavioral problems are internalization and externalization issues (Achenbach & Edelberg, 1987; quoted by Salik, 2013). The issue of internalization behavior refers to problems and disorders that are centered on one's self, characterized by negative emotions, and include problems such as isolation, anxiety, depression, and physical complaints. On the other hand, the issue of externalization behavior is described as conflicts with others and social norms and includes rule-breaking and aggressive behaviors. Most children suffering from behavioral disorders have negative emotions and mistreat others. In addition, the social isolation of these children causes more aggressive behaviors on their part and, therefore, the combination of these factors puts them at risk of developing antisocial behaviors (Brown & Percy, 2007). Although the exact etiology of behavioral problems remains unknown, it is clear that these problems do not occur on their own. In research on the etiology of children's behavioral problems, several factors have been identified as risk factors, the most important of which are 1- parenting factors and styles, 2- factors related to the child such as natural characteristics (Bosmans, Braet, Van Leeuwen, & Beyers, 2006). Behavioral problems that are resulted from children's behavioral differences with cultural, age, and ethnic norms can lead to many problems for the child, including poor academic performance and social relationships, inability to take care of themselves, and personal adjustment. Children with behavioral problems

often experience negative feelings and emotions, mistreat others, are alienated and rejected by their teachers and classmates, and often miss out on educational opportunities (Brown & Percy, 2007). The issues of children who often have serious problems with one or more of their academic abilities, such as reading, writing, and math, are usually not recognized until after they go to school; therefore, it is quite difficult to provide special education for them (Halahan & Kafman, 1988; translated by Javadi 2007).

The majority of research literature on children's behavioral problems has focused mainly on family factors as predictors of such problems. Studies have mentioned parenting style as one of the most important family factors influencing children's behavioral disorders (Diaz, 2015). Baumrind (1991) argued that parenting style is indicative of the emotional relationship between parents and children. Based on Baumrind's classification, there are three parenting styles: authoritative, authoritarian, and permissive (Shafipour, Sheikhi, Mirzayi, and Kazemnejad Lily, 2013). Research on these three parenting styles shows that parents with an authoritarian parenting style are flexible and demanding, control their children, but are accepting and responsive as well. Such parents explain that they are receptive to their children's needs and views, set certain rules, and when they are advising their children, they do it respectfully. They are assertive but not strict and coercive, and their disciplinary methods are more supportive than punitive. However, authoritative parents impose the rules inflexibly, discipline their children harshly, do not accept bad behavior, and punish the misbehaviors. Such parents do not express much of their love and intimacy for their children. Negligent parents, on the other hand, are rather careless about teaching their children social behaviors. Such families do not adhere to social rules and customs much, any of the members of such families can do whatever they want. Children in such families have intellectual and practical independence and a kind of mental instability is seen in such families due to the present chaos (Dehrat, Pelham and Tennen, 2006 and Moradkhani, 2012).

Family disorders strongly influence the development of children's emotional and behavioral disorders. Such an influence has encouraged researchers to study stress and its impact in this field. Parenting stress is a term that characterizes the perception of stress in the child's parenting system. Parenting stress includes both the child's stressful characteristics and their parents' response to such characteristics (Abedin, 2017). In this respect, several studies have shown that the parent-child relation and emotional-behavioral development of the child were all directly affected by parental stress (Sturra, 1991; translated by Dadsetan, 2007). Research has also shown that poor parent-child interaction increased child's stress and high parenting stress weakened the parent-child interaction. Hence, parenting stress causes negative and dysfunctional

parenting style behaviors (Wise, Sullivan and Diamond, 2008), and not only has its negative impacts on the mother's health but also has destructive effects on the child Brass and Baker, 2000). Ostberg, Hagekull & Hagelin (2007) have also stated that a high level of parental stress increased the risk of children's development of various illnesses and behavioral-emotional disorders. Many researchers have studied the experience of parental stress (Creasey & Jarvis, 1994; and Kwok & Wong, 2000) and showed that the act of parenting was quite stressful for both parents, but mothers experienced it more than fathers. They stated that the reason for this was that mothers spend more hours with their children, while fathers spend this time outside of the house to provide for the family. Therefore, child supervision could be a source of stress in parents, particularly mothers. Parenting stress not only negatively affected the mother's health, but it also had destructive effects on the child (Mcguire et al., 2002). Brass and Baker (2000) also argued that a high level of parental stress enhanced the likelihood of the development of emotional-behavioral disorders and illnesses in children. Studies also showed that the degree of interaction, inhibition, and non-responsiveness of mothers was closely related to the child's behavior on the one hand, and their stress level in relation to their material role on the other one (Mash and Barkley, 2006). Weiss JA, Sullivan A, and Diamond (2008) researched the relationship between parental stress and children's adaptive functioning and their developmental disabilities. According to their findings, there was a relationship between parental stress and children's adaptive behavior and a low level of adaptive function could predict higher levels of stress. Thus, given what was mentioned before, the present study asks the following question: "Can mothers' stress and parenting styles predict children's internalized and externalized behavioral problems?"

Research methodology

The field research method was used in this study. The present research was correlational descriptive. The research data was collected using a questionnaire. The statistical population consisted of all mothers residing in Shiraz, whose children were in primary school in the academic year of 2018-2019. The statistical sample of this study was composed of 250 of the said mothers, who were selected using the multi-stage cluster random sampling. For this purpose, 3 primary schools for boys and 3 primary schools for girls were randomly selected out of the four education districts of Shiraz. Out of each school, three classes were selected and the mothers of the students of these three classes were asked to fill out the selected questionnaires: Parenting Style and Dimensions Questionnaire (PSQD), Parenting Stress Index (PSI), and Child Behavior Checklist (CBCL).

To conduct this study, first, the objectives of the present study were explained to the research sample. Before the implementation of the questionnaires, they were reassured that all of the information they provided remained confidential and would not be shared with anyone. The criteria for participating in the research included being married and living with their husbands, willing to participate in the study, providing consent, and literacy (at least at the elementary level). Physical or psychiatric illnesses and expression of any kind of opposition with the execution of the tests were the criteria for exclusion from the present study. The Pearson correlation coefficient, regression analysis, and the statistical software SPSS were used to analyze the research data.

Research tools

The following three validated questionnaires were used to collect data:

Abidin Parenting Stress Index (PSI-1990) and Child Behavior Checklist (CBCL) by Achenbach

Baumrind Parenting Style and Dimensions Questionnaire (1991): PSDQ was developed by Bamrind (1991). This questionnaire consisted of 30 items, associated with permissive, authoritative, and authoritarian parenting styles (10 items each). In this study, the participants who were the mothers of the studied samples must read each item and express their opinion with a cross sign on a five-point scale (strongly disagree, disagree, almost disagree, agree, and strongly agree). Different scores were assigned to the said options from 0 to 4, respectively. The sum of scores of the three different groups of items (permissive, authoritative, and authoritarian parenting styles) was then calculated for each participant. This questionnaire has been used by Esfandiari (1995) and Rezayi (1996). They have reported it was a valid and reliable research tool. Bori (1991) reported the reliability of this questionnaire using the retest method as follows: 0.81, 0.85, and 0.92 for the permissive, authoritative, and authoritarian parenting styles, respectively. Bori also reported the following concerning the validity of the questionnaire: the mothers' authoritative parenting style was inversely related to their permissiveness (-38) and authority (-48). According to Bori's findings, the father's authoritative parenting style was inversely related to permissiveness (-50) and authority (-52). In PSDQ, items 28, 24, 21, 19, 17, 14, 13, 10, 6, and 1 were associated with the permissive parenting style, items 29, 2, 3, 7, 9, 12, 16, 1, 25, and 26 were related to the authoritative method, and items 11, 15, 20, 22, 23, 27, and 30 were associated with the authoritarian method. There were 5 different columns in front of each phrase, i.e. strongly agree, agree to some extent, somewhat disagree, disagree, strongly disagree, scored from 0 to 4, respectively. The total score was calculated by adding the scores of the questions related to

each parenting style and dividing it by the number of questions.

Abidin's Parenting Stress Index (PSI-1990): This index was designed by Abidin (1990). This index could be used to assess the significance of stress in the parent-child relationship. This index was based on the principle that parental stress could lead to the development of several properties in the child, some of their parents' traits, and/or various situations directly associated with the parents' role. The version of the PSI utilized in this research was a modified version of the previous forms, which was easier to correct and had lesser items. This index contained 120 items which were divided into three groups: childhood realm (47 items), parenting realm (54 items), and a voluntary scale called life stress (19 items). Each of these scales had some subscales and contained some items. The childhood realm had 6 subscales including adaptability (11 items), acceptance (7 items), greed (9 items), mood (5 items), inattention and hyperactivity (9 items), and reinforcement (6 items). The parenting realm contained 7 subscales including depression (9 items), attachment (7 items), role limitations (7 items), sense of competence (13 items), social isolation (6 items), relationship with the spouse (7 items), parent's health (5 items). The reliability and internal consistency coefficient were determined by calculating the Cronbach's alpha for the entire scale on a group of 248 mothers from Hong Kong (93%). These coefficients were 85% and 91% in the child's realm and parents' realm, respectively. The discriminant validity of PSI was 93% and the scope of the simultaneous validity coefficient of PSI with 5 other stress scales was between 38% and 66% (Dadsetan, 2006). Abidin (1991) studied a group of American mothers and reported that the reliability coefficients of the internal consistency of the said scale were 93%, 86%, and 83% for the entire scale, the child realm, and the parent's realm, respectively (Abidin, 1991; quoted by the Dadsetan, Ahmadi and Hossein Abadi, 1385). In a study by Dadsetan et al. (2006), the reliability coefficient of the internal consistency for the entire scale and the confidence coefficient of the retest with a 10-day interval were 88% and 94%, respectively. PSI was scored on the five-point Likert score (1 to 5, from strongly agree to strongly disagree, respectively). The process of analysis of the obtained results started with calculating the overall score of the scale (child and parent realms). Next, the results of the subscales in each realm were analyzed based on the scoring table (Astora, 1998).

Achenbach's Child Behavior Checklist (CBCL) – parent's version: The child behavioral problems inventory is a part of the Achenbach System of Empirically Based Assessment (ASEBA-1991) that assessed the problems of children and adolescents through eight factors: anxiety/depression, withdrawal/depression, semiotic complaints, social problems, thinking problems, attention problems, ignoring rules, and aggression. The two factors of

ignoring the rules and aggressive behavior were second-order externalized problems. This questionnaire assessed the emotional-behavioral problems as well as academic and social competence and abilities of children between the ages of 6-18 from their parents' perspectives. It usually took 20 to 25 minutes to fill out this questionnaire (Minayi, 2005). This scale measured 8 emotional-behavioral problems or syndromes, including: anxiety/depression (AD) (including items 12, 14, 29, 30, 31, 32, 33, 35, 45, 50, 52, 71, 91 and 112); withdrawal/depression (WD) (including items 5, 42, 65, 69, 75, 102, 103, and 111); semiotic complaints (SC) (including items 47, 49, 51, 54, a56, b56, c56, d56, e56, f56, g56 and, if possible, h56); social problems (SP) (including items 11, 12, 25, 27, 34, 36, 38, 48, 62, 64 and 79); thinking problems (TP) (including items 9, 18, 40, 46, 58, 59, 60, 66, 70, 76, 80, 83, 84, 85, 92 and 100); attention problems (related to attention deficit/hyperactivity disorder) (AP) (including items 1, 4, 8, 10, 13, 17, 41, 61, 78, and 80); 26, 28, 39, 43, 63, 67, 72, 73, 81, 82, 90, 96, 99, 101, 105 and 106); aggression (AG) (including items 3, 16, 19, 20, 21, 22, 23, 27, 37, 57, 68, 86, 87, 88, 89, 94, 95, 97 and 104). In addition to the aforementioned method, CBCL had three broadband scores including 1) internalized behavioral problems; 2) externalized problems and 3) general problems.

The Internalized Behavioral Problems Scale includes the withdrawal/depression (WD), semiotic complaints (SC), and anxiety/depression (AD) subscales. The externalized behavioral problems scale included the subscales of rule-breaking behavior (RB) and aggression (AG). This questionnaire consisted of 115 questions related to various behavioral conditions of children. The questions of this questionnaire are were answered on a three-point Likert scale, from 0 to 2, with the score "0" assigned to items that were never seen in a child's behavior; the score "1" assigned to the states and behaviors that were sometimes observed in the child, and the score "2" assigned to the behaviors that

were often or always expressed by the child. The general problems scale included all items except items 2 and 4 (allergy and asthma). As far as the obtained score from this scale was concerned, Achenbach (1991) stated that in the internalized and externalized behavioral problems and general problems scales, if the T score was less than 60, between 60 and 63, and greater than 63, the respondent's child would be in the normal or non-clinical range, the borderline-clinical range, and the clinical range, respectively.

Execution method

After approving the proposed research plan in the Faculty of Humanities of Islamic Azad University, Estahban Branch, a letter of introduction of this research was obtained in order to distribute the selected questionnaires among Shiraz's primary schools. The research sample was selected using the random cluster sampling technique. After establishing communication and reducing the participants' sensitivity concerning the questionnaire and the reasons for their selection in the sample, the researcher explained how to fill out the questionnaires. Then, the participants completed the questionnaires. They were reassured that their answers would remain confidential, so they were asked to be totally honest in answering the questions. The participants were asked to ask the researcher for further explanation if they encountered any kind of ambiguity in filling out the questionnaire. The collected data were analyzed using descriptive and inferential statistics including frequency, percentage, mean, standard deviation, standard variation, independent sample t-test, Pearson torque correlation coefficient, and hierarchical regression analysis.

findings

Table 1 displayed the descriptive information about the variables. Tables 2, 3, and 4 summarized the correlation matrix, results of the multiple regression, and the t-test.

Table 1: Descriptive findings associated with the research variables of parenting styles, maternal stress, and behavioral problems

Statistical index Scale	Mean	Standard deviation
Authoritarian parenting styles	29.94	4.01
Permissive parenting styles	20.54	3.03
Authoritative parenting styles	23.98	3.06
Total score of mothers' stress	142.78	11.66
Childhood realm subscale	52.98	5.82
Parenting realm subscale	89.80	6.74
Internalized problems	29.95	4.71
Externalized problems	29.18	3.48

According to table 1, the means and standard deviations of the authoritarian, permissive, authoritative parenting style were 29.94 (4.01), 20.54(0.03), and 23.98 (3.06), respectively. Moreover, the total score of mothers' stress,

internalized problems, and externalized problems with the mean and standard deviation were reportedly 142.78 (11.66), 29.95 (4.71), and 29.18 (3.48), respectively.

Table 2: Correlation matrix of parenting styles and maternal stress and the internalized and externalized behavioral problems

Variable	1	2	3	4	5	6	7	8
1. Authoritarian parenting style	1							
2. Permissive parenting style	-0.31*	1						
3. Authoritative parenting style	-0.31**	-0.33**	1					
4. Maternal stress	-0.54**	-0.29**	-0.46**	1				
5. Childhood realm	0.59**	0.51**	-0.65**	0.72**	1			
6. Parental realm	0.62**	-0.44**	-0.61**	0.91**	-0.93**	1		
7. Internalized behavioral problems	-0.69**	0.13*	0.14*	-0.80**	-0.54**	-0.71**	1	
8. Externalized behavioral problems	-0.13**	0.29**	0.57**	-0.69**	-0.53**	-0.65**	-0.31**	1

* P<0.01, ** P<0.05

Table 2 showed that there was a negative significant correlation between the authoritarian parenting style and internalized and externalized behavioral problems. Also, a positive significant correlation was seen between the permissive and authoritative parenting styles and internalized and externalized behavioral problems. Furthermore, there was a negative correlation between the authoritarian parenting style and maternal stress. Additionally, there was a positive significant correlation between the permissive and authoritative parenting styles and maternal stress. Table 2 also displayed that there was a negative correlation between maternal stress and internalized and externalized behavioral problems. Given the correlation between the different parenting styles and maternal stress and internalized and externalized behavioral problems, linear regression was used to predict the internalized and externalized behavioral problems based on the parenting styles and maternal stress.

	square	square		
	d	s		
Regression	3790.97	4	947.74	133.5 2
Residual	1738.96	24	7.09	0.00 0
Total	5529.93	24		
		9		

As seen in Table 3, the Sig. value was lower than 0.01, which was an indication of the significance of the regression model. This meant that at least one of the predictors significantly affected the criterion variable.

Given the significance of the entire model, the said coefficients had to be examined to see which one was equal to zero. In other words, it was time to see which variable(s) was significantly effective. The t-test was used for this purpose.

Table 3: The results of regression for predicting internalized and externalized behavioral problems based on parenting styles and maternal stress

Model	Roots	DF	Mean	F	Sig.
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Table 4: Standard, non-standard, and t-statistic coefficients of the variables entered in the regression equation

Predictor	Regression coefficients		T-statistic	Sig.	Desired significance level
	Non-standardized	Standardized Beta			
Constant value	-9.54	-	-4.54	0.001	0.01
Authoritarian parenting style	-0.04	-0.04	-0.57	0.56	0.05
Permissive parenting style	0.27	0.17	3.35	0.001	0.01
Authoritative parenting style	0.66	0.43	7.46	0.001	0.01
Maternal stress	-0.41	-0.53	-10.98	0.001	0.01

As shown in Table 4, the permissive parenting style, the authoritative parenting style, and maternal stress with the β coefficients of 0.17, 0.43, and -0.53, respectively, could predict the externalized behavioral problems.

Discussion and conclusion

The present study aimed to predict the internalized and externalized behavioral problems of children based on the parenting style and stress of their mothers. Findings showed that there was a significant relationship between the parenting styles and maternal stress and the children's internalized and externalized behavioral problems (Table 2). According to the results of the regression analysis, the variables of parenting styles and maternal stress could predict the children's internalized and externalized behavioral problems (Table 3).

These findings were consistent with the findings of studies by Teymouri and Atayifar (2010), Meshkani et al. (2016), Kalantari et al. (2005), Hemmati Alamdarloo et al. (2014), Yarmohammadian et al. (2011), Fedakari (2015), Maktabi et al. (2018), Galambus et al. (2003), Samarov (2004), Davayeri and Minshar (2006), Rinaldi and Howe (2016), Nig and Hin Shaw (2017), and Crawford et al. (2011).

Explaining these findings, it could be noted that parents who did not have a good positive relationship with their children used more severe disciplinary actions and physical punishments to manage their children's behavior. As a result, there was an increase in the children's behavioral problems. The findings of some studies (such as Negi and Another thing to study was the reason why the authoritarian parenting style supported children's competence and prevented behavioral problems in children. In this regard, it could be argued that the expectations of authoritarian parents were in proportion to their children's ability to accept their own behaviors. Therefore, such parents convinced their children of being competent people who could succeed in anything. Such an attitude led to the

Ping, 2005) indicated that parents used physical punishment on boys more than girls and boys also benefited more from their father's involvement in their affairs than girls (Samani, 1990; Stewart, Cooper, Stewart, and Fredley, 1996). Thus, usually, children who are physically punished expressed more externalized behaviors such as aggression and disobedience. This was more common among boys than girls. Usually, girls who were physically punished felt unwanted, rejected, and hard to love, and tended to internalize their problems.

In regards to the externalization of behavioral problems, it could be said that the parents of children with such problems had poor parenting skills, showed more commanding behaviors, were more opposed to their child, did not reward their child's obedient behaviors, and their rewards were random and accidental (Bradley, 2002). As Patterson (1992) argued, externalization disorders were caused by failure to enforce parental rules, which usually had three characteristics: unstable rules, poor supervision, and poor problem-solving skills. Thus, lack of parental involvement, poor management and supervision, and violent and unstable discipline were strong predictors of externalized and antisocial behaviors in children and adolescents. Kangar et al. (2003) also found that there was a relationship between strict parenting and harsh disciplining, such as physical punishment, and children's aggression and externalized behaviors.

expression of mature and independent behavior and increased the children's level of respect, and high levels of happiness in the spiritual dimensions. Hence, it could be argued that authoritarian parents valued autonomous behavior as well as discipline, as they believed that rational control and calculated freedom enabled children to institutionalize and internalize the rules and principles of appropriate behavior, and to feel responsible for their

behavior and actions. In addition to being warm and loving, these parents helped their children become independent. They tended to clarify the reasons for each action and desire for the child. It was rather likely that these conditions and atmosphere that exist in families with an authoritarian parenting style (including independence, autonomy, responsibility, love, etc.) prevented children from developing internalized and externalized problems such as being withdrawn or aggressive.

In regards to the components of poor supervision and physical punishment (authoritative parenting style) that played a significant role in predicting the children's internalized problems, it could be said that when parents failed to pay attention to their children's needs and did not supervise their behaviors, they tended to use physical punishments. Such interaction made children feel unlovable, which then would lead to depression, isolation, and loneliness, or in other words, internalized behavioral problems. The findings of Darling (1999) confirmed such statements and showed that the rate of depression was higher among children with authoritative parents, in comparison to permissive parents. Seyed Moosavi et al. (2009) also showed that the authoritative parenting style was a negative significant predictor of all of the symptoms of children's internalized behavioral problems. The rate of depression of children with neglectful parents was higher than children with authoritarian parents. They also showed that the rate of depression in children with authoritative parents was higher than children with authoritarian and permissive parents, as children with authoritative and neglectful parents were not well supervised and underwent physical punishment. The highest rate of depression was seen in children with authoritative parents and the lowest rate of depression was seen in children with authoritarian and permissive parents, respectively. It must be noted that authoritarian parents showed their children enough love and responded to their children's needs. Also, since they had the necessary skills to supervise their children with certainty and within a rational framework, they did not use physical punishment to control them, because of which they expressed the least level of behavioral problems. Overall, as shown in the study by Dedez et al. (2003), physical punishment and poor supervision had a positive significant relationship with children's behavioral problems and the higher the level of parents' support and responsiveness to their children was, the lower the level of their children's behavioral problems would be as well.

To explain these findings, it could be argued that children raised in cold and soulless families (negligent) experienced depression, anxiety, phobia, physical, emotional, and behavioral problems, and interpersonal problems more than children raised in warm families (authoritarian). The reason for this was that parents who had cold relationships usually

had depression, anxiety, phobia, and disordered interpersonal relationships with others, and they used these parents to raise their children as well.

The findings of this study showed that parental stress was one of the major issues causing behavioral and emotional problems in children. According to these findings, parents with high stress levels transferred more stress and tension to their children and had lower levels of mental health. In this respect, the parent-child interaction had a special role as it specified the family's role in the realm of prevention and treatment. Undoubtedly, parents' ability to communicate effectively with their children was the most important factor that reduced the likelihood of occurrence of negative consequences in risky situations.

For the parents to be effective, they had to have enough knowledge and information about knowing their children, perceiving their behaviors, and the causes of behavioral problems. Therefore, educating parents in this regard was one of the most common and effective methods of therapy, which has proven to be effective in various aspects of children's behavior.

Parental stress not only had negative impacts on the mothers' health, but it also had destructive influences on their children (Kessler, Maggie, and Nelson, 2000). Rogers and Hajikol (2007) have also stated that high levels of parental stress increased the risk of the development of illnesses and emotional-behavioral problems in children. It seemed that the degree of interaction, inhibition, and non-responsiveness of mothers was closely related to the child's behavior on the one hand, and their stress level in relation to their material role on the other one.

Similarly, parents' psychological health and their reaction to stress might act as a mediator between behavioral problems and children. Parents' psychological health not only influenced the parent-child relationship but also mediated the children's relationship with the environment. Parents with depressive symptoms showed a lower parental quality, sensitivity, and responsiveness, more inattention, and more impaired interactions with their children. These specifications of inefficient parents could be interpreted as rejection by the child. Depressive symptoms had a direct detrimental effect on the parents' behavior, children's growth and development, and/or the parent-child relationship. Children of depressed parents were more likely to show aggression, which is one of the externalized behavioral problems.

In explaining these findings, it could be stated that stress caused the mothers to experience several negative and unpleasant emotions. Furthermore, such negative emotions were stronger than positive and pleasant emotions, the mother experienced a lower quality of life and mental health, which in turn, caused more behavioral problems in the children. When children showed behavioral problems,

the stress scores of their fathers were usually lower than their mothers, because mothers carried most of the burden when it came to raising children. This did not mean that fathers were less affected by situational problems, but since the mothers were more involved in taking care of their children, they were more exposed to stress.

The child's behavioral problems were the result of the bilateral and acquired relationship between parental stress and children. As a result of stress, high temperament, or other issues, the child showed distress, which increased their parents' stress. In such situations, the children felt rejected or punished, which in turn aggravated their behavioral problems. In fact, a child's misbehavior provoked reactions such as aggression, physical punishment, and anger in the parents towards their child. Such interactions eventually intensified the child's problems. Therefore, it seemed that the two-sided relationship between these problems and the mental state of the family showed the importance of therapeutic intervention in the whole family system.

One of the limitations of the present study was that it only studied mothers. Thus, a suggestion would be to conduct this study on the students' fathers as well, and also in other cities. Given that this study was conducted using self-report questionnaires, it could be better to use clinical interviews and observations to obtain more realistic results. At the same time, based on the findings of the present study, it could be recommended that parents be educated in counseling centers if they practiced the authoritative parenting styles with their children. The goal of such educations would be to teach parents to show their children unconditional love, while controlling them and for the parents to realize that this behavior would have positive impacts on their children's mental health and reduce their behavioral problems,

Conflict of interest: it should be noted that this study did not have any conflict of interest for the authors.

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