



Relationship of Parental Alexithymia and Neglect with Healthy Children's Maladjustment in Families with and Without Autistic Children

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Abstract

Background: Family factors predict the incidence of developmental incompatibilities and psychological disorders. Moreover, having a child with autism can be an overwhelming experience for some families.

Objectives: This study aimed to investigate the role of neglect and alexithymia in parents with or without an autistic child on the maladjustment level of their healthy children.

Methods: In this descriptive-correlational study, two groups of families with ($n=16$) and without ($n=16$) an autistic child in the cities of Zahedan and Birjand were selected by the convenience sampling method. Data were collected using the Toronto Alexithymia Scale, Child Abuse Questionnaire (self-report scale), and Rutter's Child Behavior Disorders Questionnaire (parent form), which were then analyzed using Pearson's correlation coefficient and stepwise multiple regression test.

Results: Significant results were obtained for specific and joint relationships between parental alexithymia and neglect and maladjustment of their healthy children ($P=0.041$). However, the results obtained for the effect of the presence or absence of an autistic child in the family as a moderating variable were not significant ($P=0.556$). Parental alexithymia had a significant positive correlation ($r=0.565$, $P=0.001$), and parental neglect had a significant negative correlation ($r=-0.393$, $P=0.029$) with maladjustment of healthy children in the family.

Conclusions: Neglect and alexithymia in parents specifically and jointly correlate significantly with their healthy child's maladjustment. However, the presence or absence of an autistic child in the family has no significant effect on this relationship. Parental alexithymia is a stronger predictor of the maladjustments of healthy children.

Keywords: Alexithymia, Neglect, Adjustment, Autism, Sibling

1. Background

Alexithymia is referred to as a condition in which a person has trouble interpreting, processing, and expressing his emotions (1), resulting in decreased emotional awareness and increased aggression (2). Contradictory results are reported concerning the effect of maternal alexithymia on children's adjustment. For example, a study by Tarantino et al. indicated the associations between maternal alexithymia and the child's levels of anxiety at school, separation anxiety, guilt feeling, and fear of rejection, which consequently leads to poor performance at school and learning difficulties, which are all examples of maladjustment (3). However, Noh reported that maternal alexithymia led to the balance of maternal depression and the child's maladjustment, anxiety, and depression (4).

Parental alexithymia could also increase the likelihood of neglecting children, i.e., their indifference to their children's education and failure to respond to their needs (5), which is considered a form of child abuse, causing psychological harm to the person and disrupting the person's growth and development (1). On the other hand, paying enough attention to the child develops a secure attachment. Thus, it can be concluded that negligence negatively affects the development of the desired relationship and can result in the child's maladjustment later in life (6).

Generally, the mother-child relationship is responsible for adjusting the child's emotional and behavioral experiences (7). Besides, a mother's neglect of her child could cause psychological damages and maladjustments, such as an inability to solve problems and resolve conflicts,

familial relationship issues, impaired growth and development, lower academic progress, increased disciplinary problems, and higher levels of anxiety, depression, aggression, delinquency, and impulsive behaviors in children and adolescents (1, 5, 7, 8). This is true for all children, regardless of whether or not a family member is autistic (7).

Some other research has reported contradictory results regarding the effect of the presence of an autistic child on the non-autistic one's adjustment. For example, some studies reported significantly weaker adjustment mechanisms in healthy siblings of autistic children (9-11). Nonetheless, Jones et al. and Di Biasi et al. concluded that healthy siblings of autistic children did not generally show clinical-level incompatibilities, and compatibility problems might be totally absent in some cases (12, 13).

These conflicting results indicate that mediating factors may be involved in this issue other than the presence of an autistic child. In addition, discordant results of the effect of parental alexithymia and neglect on children's adjustment are reported in different studies (1, 3-5, 7, 8).

2. Objectives

This study aimed to investigate the specific and joint relationship between parental alexithymia and neglect and their healthy children's maladjustment. This research also investigated whether or not differences exist in families with and without an autistic child.

3. Methods

The current descriptive-correlational study was approved by the Ethics Committee with the ethics code of IR.ZAUMS.REC.1399.474. The statistical population of the present study included families with at least one healthy child in the cities of Zahedan and Birjand. We selected 32 families (16 without an autistic child and 16 with an autistic child) using the convenience sampling method. There should be no history of personality or psychotic disorders in their families reported. Also, families with an autistic child should have at least an autistic child above the age of four years and one healthy child in the age range of 8 - 18 years. If any families could not cooperate with us for any reason, they were removed from our sample. After obtaining families' consent, data collected using Rutter's Children's Behavioral Disorders Questionnaire (RCBQ, parent form), Child Abuse Scale (self-report), and the Toronto Alexithymia Scale (TAS-20) were analyzed statistically by Pearson's correlation coefficient and stepwise multiple regression test in SPSS-26 software.

3.1. Scales

3.1.1. Rutter's Children's Behavioral Disorders Questionnaire (Parent Form)

This questionnaire was created by Rutter (as cited by Khoddam et al.) to investigate children's behavioral disorders. This questionnaire has 31 three-choice questions answered by parents. The grading scale for each question is in the form of "has no problem," "sometimes has a problem," and "always has a problem," which respectively gain zero, one, and two points. The total test score for each person is between 0 and 62; if a child has a score equal to or more than 13 (cutoff point), he/she suffers from a behavior disorder. According to Khoddam et al., this questionnaire has high internal and retest reliability. Based on a study, the retest coefficient with an interval of two months was reported at 0.74, and the correlation between teacher and parental forms was estimated at 0.76. In the studies conducted on an Iranian sample, the reliability coefficient calculated by the retest method with an interval of two weeks was 0.95. Also, a correlation of 0.97 was reported between the questionnaire score and the psychiatrist's assessment (14). Cronbach's alpha coefficient of 0.87 was reported for RCBQ (parent form) in Babaie Khakian's research on an Iranian sample (15).

3.1.2. Child Abuse Scale (Self-report)

The face and content validity of the Child Abuse Scale (self-report) was verified in Nourbakhsh's dissertation. Five questions of this questionnaire that measure neglect had a Cronbach's alpha coefficient of 0.7. The questions are scored based on a five-point Likert scale, with scores of > 25 and < 5 indicating high-intensity and low-intensity neglect, respectively (16).

3.1.3. Toronto Alexithymia Scale-20

This questionnaire was created by Bagby et al. (as cited by Izadi et al.) (17). This is a 20-question self-assessment scale that contains three dimensions of difficulty in the description, identifying emotions, and focusing on external experiences. The questions are scored on a five-point Likert scale, with scores of > 60 and < 52 indicating high-intensity and low-intensity alexithymia, respectively. A Cronbach's alpha coefficient of 0.85 was reported for the alexithymia scale. The concurrent validity of the alexithymia scale was analyzed and established based on the correlation between the subscales of this test and emotional intelligence, psychological well-being, and psychological helplessness scales (17).

4. Results

The demographic characteristics of the participants in the research are shown in [Table 1](#).

Table 1. Descriptive Statistics of the Participants ^a

Groups and Participant	Frequency	Age
Family with an autistic child		
Parent		
Father	16	42.56 ± 7.61
Mother	16	39.06 ± 6.18
Healthy child		
Boy	5	13.60 ± 4.09
Girl	11	14.64 ± 3.07
Family without an autistic child		
Parent		
Father	16	46.93 ± 4.79
Mother	16	26.57 ± 5.94
Healthy child		
Boy	11	13.36 ± 3.20
Girl	5	15.60 ± 1.67

^a Values are expressed as mean ± SD.

The relationship of parental alexithymia and neglect with the maladjustment of their healthy children in the two groups of families with and without an autistic child as a moderating variable was examined using the Pearson correlation and stepwise regression test.

The Kolmogorov-Smirnov test analyzed the data normality. The results showed that variables had a normal distribution ($P > 0.05$).

Descriptive statistics and Pearson correlation results are shown in [Table 2](#). There was a significant positive correlation between the maladjustment of healthy children and parental alexithymia ($r = 0.565$, $P = 0.001$) and a significant negative correlation between the maladjustment of healthy children and parental neglect ($r = -0.393$, $P = 0.029$).

Regression assumptions, such as the normality of data distribution, the normality of residual distribution (mean = 0.00, SD = 0.931), independence of errors ([Table 3](#)), non-collinearity ([Table 3](#)), and linear relationship between the independent variables and the dependent variable ([Table 2](#)), were checked and confirmed.

Also, age and gender among families with and without an autistic child were compared and confirmed in terms of homogeneity of variances with Levene's test ($P > 0.05$).

After confirming regression assumptions, the predictor and moderator variables were entered into the regression equation. The stepwise regression analysis was ap-

plied to predict the maladjustment of healthy children by parental alexithymia and neglect. In the first step, parental alexithymia was entered into the regression equation. The first variable entered into the regression equation and remained the most influential variable among other predictive variables in the regression equation. In the second step, parental neglect entered the analysis. According to the results presented in [Table 3](#), parental alexithymia and neglect significantly predicted healthy children's maladjustment ($F = 4.576$, $P = 0.41$). In the second stage, the correlation coefficient increased to 0.644; according to the determination coefficient calculated in the second step, it could be stated that 41% of the variance of healthy children's maladjustment was due to the two variables of parental alexithymia and parental neglect.

An increase in the alexithymia score of the parents by one standard deviation elevated the maladjustment score of their healthy children by a 0.517 standard deviation point, and an increase in the negligence score of the parents by one standard deviation reduced the maladjustment score of their healthy children by a 0.313 standard deviation point ($P = 0.041$) ([Table 3](#)). Accordingly, it could be deduced that parental alexithymia is a stronger predictor of healthy child maladjustment.

To examine the moderating role of the presence of an autistic child (PA) in the family in the relationship of parental alexithymia and neglect with the maladjustment of their healthy child, in the third step, the interaction of the parental alexithymia score with the presence or absence of an autistic child in the family (moderator variable) and the interaction of the parental neglect score with the presence or absence of an autistic child in the family (moderator variable) as predictor variables were entered into the analysis. [Table 3](#) indicates that the moderator variable had no significant effect on the relationship between parental alexithymia and neglect and maladjustment of their healthy children ($P = 0.556$).

5. Discussion

According to the results of this study, there was a statistically significant correlation between the neglect and alexithymia of parents and the maladjustment of their healthy children, either alone and combined. As indicated by the findings, an increase in parental alexithymia elevated their healthy children's maladjustments, and a rise in parental neglect reduced their healthy children's maladjustments. Nevertheless, no statistically significant effect was detected for the presence or absence of an autistic child in the family.

Studies have reported mixed results on the relationship between neglect and students' educational progress.

Table 2. Mean and Standard Deviation of Studied Variables and Their Pearson Correlation

Variables	Mean ± SD	Parental Alexithymia	Parental Neglect	Healthy Children Maladjustment
Parental alexithymia	115.84 ± 23.06	1		
Parental neglect	14.11 ± 3.78	r = -0.154; P = 0.407	1	
Healthy children maladjustment	7.84 ± 5.45	r = 0.565; P = 0.001	r = -0.393; P = 0.029	1

Table 3. Stepwise Regression to Predict Maladjustment in Healthy Children According to Neglect and Alexithymia of Their Parents

Step and Predictive Variables	B	Beta	R	R2	F	P-Value	Linearity Assumption		Durbin-Watson
							Tolerance	VIF	
1			0.565	0.319	13.588	0.001			
Constant	-7.390								
Parental alexithymia	0.132	0.565					1.000	1.000	
2			0.644	0.415	4.576	0.041			
Constant	0.276								
Parental alexithymia	0.121	0.517					0.976	1.024	
Parental neglect	-0.451	-0.313					0.976	1.024	
3			0.664	0.441	0.601	0.556			2.014
Constant	0.109								
Parental alexithymia	0.080	0.343					0.953	1.030	
Parental neglect	-0.301	-0.209					0.940	1.042	
PA * Parental neglect	-0.057	-0.094					0.923	1.051	
PA * Parental alexithymia	0.022	0.306					0.905	1.065	

Abbreviation: PA, presence of an autistic child.

Some studies have reported a significant positive relationship between childhood neglect and academic maladjustment, and it increases the likelihood of academic failure, grade repetition, disciplinary problems, absenteeism from school, and declined interest in lessons (1, 16, 18), which contradicts this study. On the contrary, Egeland and Sroufe research reported a positive relationship between child abuse and academic progress (19), which is compatible with the results of the current study. Egeland and Sroufe explained the result of his research as the inattention to the educational needs of neglected students by their parents leading to no proper understanding of their children's educational reality (19). This may be a reason for the consistency with the results of Egeland and Sroufe (19) and the inconsistency of our results with those of Abolghasemi et al. (1), Nourbakhsh (16), and Kendall-Tackett and Eckerdode (18).

Based on a study by Ahmadikhah et al., the development of a secure attachment to parents increases one's psychological health and improves decision-making ability, social behavior, and future relationships of the child, ultimately increasing the child's adjustment, depending

on various factors. A factor influencing the formation of secure attachment to parents is adequate attention received by the child from the parents; thus, neglecting a child may cause disruptions in their social relationships, which is part of their social adjustment (6). Additionally, Berzenski et al. reported the effect of neglect on the increase of maladjustment, suggesting that a high level of parental neglect would predict greater internalization problems than externalization ones among children with alexithymic parents (20). Lowenthal also reported lower scores in neglected students in all cognitive dimensions (21).

Another factor affecting the formation of secure attachment is parental alexithymia (6). Ahmadikhah et al. presented evidence of a significant negative relationship between parental alexithymia and the dimensions of the parent-child relationship. An increase in parental alexithymia leads to insecure attachment and increased anxiety in the child, which disrupts the child's future social and family relationships (6, 22). Tarantino et al. stated that alexithymic mothers might be more indifferent to their child's needs, leading to maladjustments in children

with alexithymic mothers (3). Regarding the effects of parental alexithymia on the child's adjustment, Younesi Sinaki and Dolatshae believes that ambivalence in parents' emotional expression (tendency to express emotion but inability to express it, expressing emotion without real tendency, or expressing and then regretting the expression) creates maladjustment patterns of problem-solving and causes behavioral problems for children (23).

Some studies presented results regarding the significant impact of the presence of an autistic child in the family on the maladjustment of other children in the family (9-11), which are inconsistent with the results of the present study. On the other hand, it has been stated in some studies that the presence of an autistic child does not significantly affect the maladjustment of other children in the family (12, 13), which is consistent with the results of the present study. To explain the possible reason for the absence of a significant effect of the presence of an autistic child in the family on the maladjustment of their healthy sibling, as we said before about how the child's attachment affects the child's maladjustment, it is worth mentioning that an essential factor in the formation of secure attachment is the characteristics of the child (6). since a healthy child has better communication characteristics and also factors contributing to the formation of secure attachment, than his/her autistic sibling, he/she might have more attention from parents, ultimately leading to low maladjustment of him/her in the family. Thus, future studies are recommended to investigate the mediating role of attachment and assess healthy children's maladjustment levels through their teachers.

5.1. Conclusions

The results demonstrated that the neglect and alexithymia of parents have relationships jointly and specifically with the maladjustments of their healthy children. However, no difference was found between families with autistic children and families without autistic children in the relationship between neglect and alexithymia of parents and the healthy child's maladjustment. A positive relationship was observed between parental alexithymia and child maladjustment, and a negative relationship was found between parental neglect of their child and child maladjustment. In addition, a child's maladjustment is mainly influenced by parental alexithymia.

According to the findings of the present research, it can be concluded that during the life of the healthy siblings of autistic children, due to the presence of the autistic child, there is no adjustment problem. Also, one of the measures that can be taken to improve the adaptation of healthy children is to carry out necessary interventions to reduce parental alexithymia.

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Footnotes

Authors' Contribution: Study concept and design: E. H. and N. B.; acquisition of data: E. H.; analysis and interpretation of data: E. H. and M. R.; drafting of the manuscript: E. H.; critical revision of the manuscript for important intellectual content: N. B. and M. R.; statistical analysis: E. H. and M. R.; study supervision: N. B.

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Data Reproducibility: The dataset presented in the study is available on request from the corresponding author during submission or after publication. The data are not publicly available due to the privacy of participants.

Ethical Approval: The ethics committee approved the study with the ethics code (Link: ethics.research.ac.ir/IR.ZAUMS.REC.1399.474).

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References

1. Abolghasemi A, Rezaee Jamalui H, Herfati R. [The relationship between alexithymia, child abuse and academic achievement among male high school students]. *The Journal of New Thoughts on Education*. 2011;7(3):135-55. Persian. <https://doi.org/10.22051/jontoe.2011.137>.
2. Janik McErlean AB, Lim LXC. Relationship between Parenting Style, Alexithymia and Aggression in Emerging Adults. *J Fam Issues*. 2020;41(6):853-74. <https://doi.org/10.1177/0192513x19886647>.
3. Tarantino S, Papetti L, De Ranieri C, Boldrini F, Rocco AM, D'Ambrosio M, et al. Maternal Alexithymia and Attachment Style: Which Relationship with Their Children's Headache Features and Psychological Profile? *Front Neurol*. 2018;8:751. [PubMed ID: 29403425]. [PubMed Central ID: PMC5786507]. <https://doi.org/10.3389/fneur.2017.00751>.
4. Noh H. *Moderator Effects of Alexithymia on Maternal Depression and Perceived Child Adjustment*. 2017. Available from: <https://scholarscompass.vcu.edu/cgi/viewcontent.cgi?article=1262&context=uresposters>.
5. Oh I, Song J. Mediating effect of emotional/behavioral problems and academic competence between parental abuse/neglect and school adjustment. *Child Abuse Negl*. 2018;86:393-402. [PubMed ID: 28655444]. <https://doi.org/10.1016/j.chiabu.2017.06.007>.

6. Ahmadihah M, Sodagar S, Mofidi F. [Studying the Mother-Infant Relationship Based on Alexithymia, Attachment Styles and Social Acceptance in the Mothers of Infants with Neurodevelopmental Disorders]. *First International Conference on Culture, Psychopathology and Education*. 3-4 May 2017; Tehran, Iran. 2017. Persian.
7. Pooragha Roodbordeh F, Hakim Javadi M, Kafi M. [The relationship between alexithymia and attachment to mother in young adolescents]. *Journal of Fundamentals of Mental Health*. 2011;13(49):58-65. Persian. <https://doi.org/10.22038/jfmh.2011.1025>.
8. Jang CO. A Study on Adolescent psychological adjustment for neglected family. *Int J Adv Cult Technol*. 2018;6(2):30-5.
9. Macks RJ, Reeve RE. The adjustment of non-disabled siblings of children with autism. *J Autism Dev Disord*. 2007;37(6):1060-7. [PubMed ID: 17072750]. <https://doi.org/10.1007/s10803-006-0249-0>.
10. Shivers CM, Jackson JB, McGregor CM. Functioning Among Typically Developing Siblings of Individuals with Autism Spectrum Disorder: A Meta-Analysis. *Clin Child Fam Psychol Rev*. 2019;22(2):172-96. [PubMed ID: 30178117]. <https://doi.org/10.1007/s10567-018-0269-2>.
11. Aali S, Aim Yazdi SA, Abdkhodae M, Ghanaee A, Moharari F. [Developmental Function of Families with Autism Spectrum Disorder children compared with families with healthy children]. *Med J Mashhad Univ Med Sci*. 2015;58(1):32-41. Persian. <https://doi.org/10.22038/mjms.2015.3768>.
12. Jones EA, Fiani T, Stewart JL, Sheikh R, Neil N, Fienup DM. When One Sibling has Autism: Adjustment and Sibling Relationship. *J Child Fam Stud*. 2019;28(5):1272-82. <https://doi.org/10.1007/s10826-019-01374-z>.
13. Di Biasi S, Trimarco B, D'Ardia C, Melogno S, Meledandri G, Levi G. Psychological Adjustment, Social Responsiveness and Parental Distress in an Italian Sample of Siblings of Children with High-Functioning Autism Spectrum Disorder. *J Child Fam Stud*. 2016;25(3):883-90. <https://doi.org/10.1007/s10826-015-0256-x>.
14. Khoddam H, Modanloo M, Ziaei T, Keshtekar AA. [Behavioral disorders and related factors in school age children of Gorgan]. *Iran J Nurs Res*. 2009;4(14):29-37. Persian.
15. Babaie Khakian Z, Zakiei A, Naghshineh T. [The relationship between differentiation of self in mothers and family relationship with children's behavioral problems]. *Stud Medl Sci*. 2015;26(4):334-43. Persian.
16. Nourbakhsh M. [Investigating the relationship between child abuse and aggression in non-student youth and adolescents in Mako city] [thesis]. Islamic Azad University; 2012. Persian.
17. Izadi F, Ashrafi E, Fathi Ashtiani A. [The Structural Pattern of the Relationship between Negative Emotional Schemas and Somatic Symptoms by Mediating Alexithymia and Emotional Expressiveness]. *J Res Behav Sci*. 2019;16(3):311-23. Persian. <https://doi.org/10.52547/rbs.16.3.311>.
18. Kendall-Tackett KA, Eckenrode J. The effects of neglect on academic achievement and disciplinary problems: a developmental perspective. *Child Abuse Negl*. 1996;20(3):161-9. [PubMed ID: 8734546]. [https://doi.org/10.1016/s0145-2134\(95\)00139-5](https://doi.org/10.1016/s0145-2134(95)00139-5).
19. Egeland B, Sroufe A. Developmental sequelae of maltreatment in infancy. *New Dir Child Adolesc Dev*. 1981;1981(11):77-92. <https://doi.org/10.1002/cd.23219811106>.
20. Berzenski SR, Bennett DS, Marini VA, Sullivan MW, Lewis M. The Role of Parental Distress in Moderating the Influence of Child Neglect on Maladjustment. *J Child Fam Stud*. 2014;23(8):1325-36. [PubMed ID: 25346589]. [PubMed Central ID: PMC4207063]. <https://doi.org/10.1007/s10826-013-9791-5>.
21. Lowenthal B. Effects of Maltreatment and Ways to Promote Children's Resiliency. *Child Educ*. 1999;75(4):204-9. <https://doi.org/10.1080/00094056.1999.10522017>.
22. Szatmari P, Georgiades S, Duku E, Zwaigenbaum L, Goldberg J, Bennett T. Alexithymia in parents of children with autism spectrum disorder. *J Autism Dev Disord*. 2008;38(10):1859-65. [PubMed ID: 18473159]. <https://doi.org/10.1007/s10803-008-0576-4>.
23. Younesi Sinaki M, Dolatshae B. [Prediction of children's behavioral problems based on mothers' parenting styles, emotional expressiveness, emotional control and ambivalence towards emotional expressiveness]. *J Appl Psychol*. 2019;13(1):7-31. Persian. <https://doi.org/10.29252/apsy.13.1.7>.