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Comparing the family process-content, and personality traits between mothers with autistic children and the normal ones (6-15 years old)

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Abstract

Introduction: Having an autistic child confront family to stress, and effect on family functions and psychological characters of mothers in long term. Therefore, This research did in Tehran in order to compare the family process-content, and personality traits between mothers with autistic children and the normal ones (6-15 years old).

Materials and Methods: In this causal-comparative study in 2014, 29 mothers with autistic child, studying in one of the autism schools, and 35 mothers with a normal child, selected by convenient sampling. Data was collected by the questionnaires of NEO-FFI and family process-content and analyzed through T-Student test.

Results: The results has shown that neuroticism personality trait in mothers with autistic children was higher than those with normal children ($P<0.01$, $t=-4.89$) and the functions of family process ($P<0.01$, 5.30) and family content ($P<0.01$, 4.52) were lower than those with normal.

Conclusion: The results provide evidences that having an autistic child increases the level stress and anxiety in mothers, which gradually intensify the neuroticism personality trait of them, and reduces the mother's efficient functions in family process-content. Therefore, it is suggested to pay attention to family functions in psycho-education interventions in order to prevent and treat autism.

Keywords: Autism, Family content, Family process, Personality traits

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Introduction

Birth of baby in a family creates a fundamental change in the family organization especially in family role changes. The role of parents to fulfill the child's requirements, create some time limitations for them in order to care the child and also some changes in their relationship patterns (1). Even the child has normal intelligence, still needs ability, skill and high understanding between parents, in order to harmonize with new situation and delightfully experience the process of training and nurturing the child (2). Birth of a child with autism, as one of the common and chronic disorders of childhood, with long term disability and also with the child's destructive behavioral inadaptability and his/her dependency to parents, cause an increase on family's economic and mental pressure insomuch will influence the total family system (3). The child's dependency to family with strict cares, great challenges and role tensions, for family's compatibility and persistence can influence family's process and content of autistic child. The presence of these children in a family, in addition to imposing a heavy economic burden, often confront a family with a type of crisis because of conflicts over educational issues such as child behavioral control. Indeed it seems that having an autistic child and a crisis in family and economic issues creates different types of communication and mental problems for family individuals. The parents of an autistic child in comparison with normal ones experience more stress than other growth disorders (4). McStay et al. and Christal et al. had expressed failure to control child's behavior and financial constraint as stressful factors of autistic child's parents (5, 6). The parents of autistic children experience more stress in comparison to parents of normal ones and the children with Down syndrome, and swamp them with depression and

anxiety. The level of this stress in mothers is more than fathers. The reason is, the level of dependency, management, limitation of family's chances, and care of an autistic child and increasing of mother's responsibility toward her child's satisfaction of special requirements (3,7). That is why this group of parents usually have lower general health (8). Severe and chronic stress of autism parents can influence their mental and physical health and lead to depression and weak mental function which can access to widespread physical disease in the long term such as diabetes, digestive diseases and problems with upper respiratory tract (2,5). Sometimes having an autistic child can affect marital relations and can be effective in coping strategy to stressor (autistic child) in a family (2). Active coping strategies, planning, positive reinterpretation of stressor (child's disability) can be as a moderator of coping strategies in reducing maternal depression (9). Gare's research results showed, about a third of mothers of autistic children use psychotherapy to reduce the level of their depression and anxiety (8). Increasing mental stress in the family may lead to severe mental disease in mothers and can affect the adaptation and use of their coping strategies. Parents of normal children use more cognitive strategies and parents of mental retarded children are more likely to use emotional strategies (10). Extreme care of the child, autistic child behaviors, ignoring the life by father because of special needs of the child, father's anger rate of the child is affected the stress of most mothers, and parent's age, family income level, education and job does not affect parent's stress as a component of family content (11). Family content includes all family components such as education, age, gender, race, job, physical and mental health, time of being together, place of living, income and leisure time (12). Except for gender and race, the rest of the components are

changing due to the changes in the family during the family life cycle, and dependent to family social texture. Family content has direct and indirect effect on mental health of the family, satisfaction of family members and conflicts in the family (12), and lack of proper process and content predicts the level of family's stress, anxiety and depression based on family process-content (13). Family process concludes the actions that provide the ability to organize and adapt more effectively for family members and includes communication skills, education styles, stress coping skills, decision-making and problem-solving skill, family cohesion, and flexibility (14). Khushabi (15) found the research that stress and psychasthenia of mother's of autistic children are associated with increased severity of the disorder. The greater the severity of the disorder, the less likely is to use problem-oriented coping strategies which can be effected in adapting and applying family processes and contents, also parental personality traits can play a role in the use of coping strategies, communication of family members and control of behavior and emotions. Having an exceptional child effects the personality traits of conscientious and the level of parental flexibility (16-18). Since the family is a dynamic system and as a system, faced with new needs and conditions based on its three existential aspects, the family processes, the family contents and the family social context, family members should be able to face with new crisis and conditions, to compatible and maintain their persistence (12). Autism of one of the members makes the family system unable to desirably perform its functions and tasks. As a result, there may be interruptions in family functioning which leads to a serious hurt to interactive patterns and the using of neurotic defensive mechanisms in the family. Lack of family process-content skills can cause serious family problems and face family

with problems in its persistence and compatibility. While the presence of parents with normal and efficient characters and family possessing of proper and constructive processes and contents can have significant affect on family mental health, compatibility and timely treatment of an autistic child. So according to the role of family factors and mother's personality traits in reactions of children with autism disorder and high importance of these factors in the treatment process of autistic children and concern about the increasing prevalence of this disorder in the future, the necessity of this research is required. Therefore, the present research was conducted to compare the process-content and personality traits between the mothers of autistic and normal children (6-15 years).

Materials and Methods

Methodology was ex-post facto. The population consisted of mothers with normal and autistic children, referring to autism schools in Tehran in 2014. According to Delavar, for comparing the variables of the two independent groups, 30 participants are required for each group as a sample size (19). In this study, taking into account the likelihood of dropping the participant, 35 participants were considered for each group. 35 mothers of autistic children and 35 mothers of normal children (6-15 years) were selected by convenient sampling method. 6 questionnaires for mothers of autistic children were excluded due to incompleteness, and the data of 29 mothers with autistic children and 35 mothers of normal children were calculated and were analyzed by T-student test for independent groups. Criteria included:

- Autistic children and normal ones should be aged 6-15 years.
- Mothers of both groups have normal mental and physical health. This criterion was controlled in the initial interview with mothers.

- Autistic children had diagnosis file of autism disorders and were at autism children schools.
 - Mothers of both groups had at least high school diplomas.
 - If mothers were divorcee, had an addicted husband, remarriage or were householder could not participate in this study.
- In this research, the following ethical considerations were observed regarding the participants:
- The subject and purpose of the research were explained for the participants and it was noted that their information and data are confidential and will be used solely for the purposes of research.
 - To ensure that participants are not anxious, before performing the questionnaires and collecting data, legal and organizational licenses were provided and the participants were informed.
 - The researcher conducted an initial interview with the participants before performing the questionnaires for knowing the health status of the participants and whether they can emotionally and mentally answer the questionnaire accurately and honestly.
 - Due to the time spent by the participants in completing the questionnaires, they received a pen and simple welcome.

Research Instrument

A) Questionnaire of NEO- FFI (short form 46): This questionnaire has 46 questions and was created by Costa and McCrae (1992). It has five subscales, such as neuroticism, extroversion, Openness in experiences, adaptability, conscientious. Cronbach alpha coefficients in the factors of neuroticism, extraversion, openness in experience, adaptability were respectively 0.86, 0.73, 0.56, 0.68, and 0.87. In Habibi and Jafari’s research, internal consistency was obtained respectively 0.74, 0.75, 0.59, 0.71 and 0.84, using Cronbach’s alpha coefficient for these factors. And the construction validity was

respectively 0.80, 0.78, 0.75, 0.76 and 0.78, using the internal consistency validity (20).

B) Family Process Scale (SFPS): This scale was prepared by Samani. It contains 43 five-point questions. (Totally agree=5 to totally disagree=1). The total score of the questionnaire is from 43 to 215. Questions to be reversed include: 1,5,7,8,20,28 to 37 and 40, that is, the score is given in this way, (5=1),(4=2),(3=3),(2=4) and (1=5). Samani has respectively achieved the reliability and validity of the sub-scales as decision-making and problem-solving 0.85 and 0.89, coping skill 0.73 and 0.87, consistency and mutual respect 0.73 and 0.83, communication skill 0.71 and 0.84 and religious beliefs 0.87 and 0.81 (12).

C) Family Content Scale (SFCS): This scale was prepared by Samani and contains 38 questions. Scoring is as (Totally agree=5 to totally disagree=1). The total score of the questionnaire is 38 to 190. The number of questions to be reversed is 1,3,4,5,6,7,8,9,10,11,12,18,20,21,22,23,25,27,28, 31,32,33,37,38. Samani used factor analysis to determine validity. The reliability and internal consistency of the subscales were respectively obtained as: job and education 0.83 and 0.86, time of being together 0.77 and 0.88, financial sources 0.78 and 0.76, physical appearance and social status 0.82 and 0.83, physical and mental health 0.72 and 0.79, the living space 0.79 and educational facilities 0.82 and 0.85 (12). Since the research data were continuous and measured at a distance scale, they were analyzed using T-Student parametric test for independent groups.

Results

The mean age of autistic children was 11.2 ±1.1 and their mothers was 39.2 ± 4, and also the mean age of normal children was 10.4 ± 1.3 and their mothers was 1.5 ± 9.38.

Table 1. Demographic characteristics of the participants

Feature	Mothers with normal children		Mothers with autism children	
	Level	N	Percentage	N
Socio-economic	High	10	28.57	9
	Moderate	14	40	11
	Low	11	31.42	5
Education	Diploma	2	34.28	2
	B.A	8	51.42	0
	M.A	5	14.28	3
Employment status	Employed	9	54.28	7
	Householder	6	45.71	8

Table 2. Mean and standard deviation of family process-content scores in mothers of normal children

Variable	Mean	SD	Min score	Max score
Neuroticism	28.85	5.66	20	39
Extroversion	27.82	5.02	19	45
Openness in experiences	33.48	4.79	21	47
Adaptability	36.67	4.73	28	50
Conscientious	31.91	5.79	12	43
Family process	149.48	15.79	87	191
Family content	98.88	9.82	70	118

Table 3. Mean and standard deviation of family process-content scores in mothers of autism children

Variable	Mean	SD	Min score	Max score
Neuroticism	35.39	5.93	20	49
Extroversion	27.03	4.16	17	35
Openness in experiences	32.72	4.55	25	43
Adaptability	36.55	4.93	22	48

Conscientious	30.31	5.72	20	43
Family process	112.06	12.66	47	196
Family content	81.65	7.57	38	120

In tables 2 and 3, the mean and standard deviation of the personality trait scores and the family process and content of the mothers of normal and autistic child have been reported.

Table 4. Summary of T-test results to compare the personality traits of mothers of autism and normal children

Variable	F	Sig	T	DF	Sig	Means difference	Standard error of mean
Neuroticism	0.56	0.81	-4.89	62	0.001	-7.10	1.45
Extroversion	0.25	0.61	0.68	62	0.49	0.79	1.16
Openness in experiences	0.06	0.96	0.64	62	0.52	0.76	1.17
Adaptability	0.073	0.78	0.18	62	0.857	0.21	1.21
Conscientious	0.16	0.68	1.10	62	0.27	1.6	1.44

As shown in Table 4, the assumption of homoscedasticity is in the scores distribution of the personality traits. The calculated t value is significant only for the personality trait of neuroticism ($P < 0.01$). So it was

concluded that there is a significant difference between neuroticism personality trait of mothers with autistic children and mothers of normal but there was no significant difference among the personality

traits of extroversion, openness in experience, adaptability and conscientious

of mothers with autistic children and mothers of normal children.

Table 5. Summary of T-test results to compare the family process and content of mothers of autism and normal children

Variable	F	Sig	T	Df	Sig	Means difference	Standard error of mean
Family process	0.24	0.62	5.30	62	0.001	37.41	7.05
Family content	1.99	0.16	4.52	62	0.001	17.23	3.80

According to the results of table 5, the assumption of homoscedasticity is in the scores distribution of family process and content. The results showed that there is a significant difference between family process and content in mothers of autistic and normal children. However, the results of this study showed that, the severity of neuroticism in mothers of autistic children is higher than mothers of normal but the level of family process and content in mothers of autistic children is higher than mothers of normal children.

Discussion

The aim of this study was to compare the family process-content and personality traits between the mothers of autistic children and normal (6-15 years). Results showed that there is a significant difference between the mothers with autistic and normal children, in terms of neurotic personality trait, process and content of family. This result agrees with the results of the Latifian (21), Bakhtiar (22), Khanjani (23), Qobari Bonab (24), Haren mitchel (25), Kolevzon, Gross, Reichenberg (26), McConachie and Digel (27) and Rai (28) researches. The results of these researches showed that there is a significant difference between personality traits, mental health and high scores in neuroticism with stress experience and high anxiety in individuals. In another words, can conclude that mothers' neuroticism personality traits can explain part of the changes of autism disorder in children. Autistic in one member causes the family system can't perform its function well. As a result family function may lead to interruptions that cause serious damage to

interactive patterns and selection of incompatibility defense mechanisms in the family and family persistence is not possible. Personality traits of individuals are influenced by genetics and environmental factors (29). In the Genetic debate, the results of Kolevzon et al. study shows that 48% of mothers with autistic children, had background of anxiety and stress in their pregnancy, suggesting a significant relationship between autism disorder and stress and mothers concerning during pregnancy (26). The results of Kinney, Munir, Crowley and Miller (30) and Rai (28) research showed that mothers of autistic children suffered from depression during their pregnancy, which plays a role in suffering the child from autism disorder. On the other hand, the personality of the people can change by the influence of environmental factors. Therefore, low emotional stability and mothers depression before the birth of an autistic child, along with the more stress that the mothers of these children experience due to the nature of autism disorder, than the other growth disabilities and normal children, can lead to high maternal depression and a rise in neuroticism score in them (31-34). Family is considered to be the most important assumption in family process-content model and it refers to the fact that families that have good processes have better performance. Compatibility of family members is directly related to the extent to which coping processes are used and processes are organized in critical situations. While, in families with autistic children, most likely due to the daily stress that these

children produce for their mother than the other kinds of the family (Down syndrome children, children with developmental disorders and normal children), they encounter problems in the use and organize of appropriate processes. Therefore, they are more likely to be less adaptable in the face of the crisis. In comparing the process and control of the family between normal and delinquent adolescents, Abdullahzade (13) concluded that there is a significant difference between the components of family process of these two groups, like coherence and mutual respect, decision making and problem solving and coping strategies. In the dimension of family content there is a significant difference in economic conditions, family time of being together, parental job, physical and mental health, physical appearance, and social status of two groups. In study the emotional profile in different family types, it was determined based on the process model and family content that families who are problematic in terms of process, experience more stress and depression is more common in the children of these families. Also, the variables of job, parental education level, appearance, social status and educational facilities predict children anxiety in the dimension of family content. In healthy families, depression is less common than in other families. In the dimension of family process; decision making, problem solving skill and communication skill predicts children anxiety (13). In explaining the effect of the family, it can be said that there is an interactive relationship between maladaptive behaviors and family feedbacks and the existence of autistic child. Therefore, having a child with autism affects the family process (35). In addition to this the degree of dependency and severity of autism children has an impact on the use of coping strategies. Parents of children with autism, in contrast to other developmental

disabilities and normal children, use avoidance and emotional (36) and denial (9) coping strategies, which is effective in the decision-making process for treatment interventions and using the problem-solving coping strategy and increasing stress, the abnormal and hyperactive behaviors of the autistic child. The greater level of emotional supports and coordination between the parents and the reception of social support, the unusual behaviors of the autistic child improves (5). While, the results suggests that parents of autistic children have more problems in their marital relationships and it increases divorce in these families. Also, these families have lower coherence and compatibility (3). These results agree to results of McDonald, Judith and Bryant (34), Frankel and Whithman (37) and Hyth et al. (4) researches. Because of the higher stress levels of parents of autistic children, compared with the parents of normal children and other developmental disabilities, the degree of compatibility, coping strategies, family cohesion and parenting styles are different in the dimensions of family processes, which this result confirms the results of this study. On the other hand, family processes affect the family content. Results of Khushabi's research (15) showed that there is a relationship between the use of coping strategies, emotion-focused and avoidance with mental health of mothers in children with mental disabilities and children with autism, and reducing mental health of parents increases their physical illnesses (38). The treatment cost of autistic children is affected economic conditions and the time of family cohesion. Having more financial resources and facilities plays a significant role to continue treatment interventions (39). Having an autistic child affects family function and more likely reduces the family function in the content of the family. In terms of physical and mental health, it

causes chronic depression and constant stress in mother, because the autistic child has unpredictable behaviors. The child's incompatible behaviors lead to social isolation in the time dimension of family members' togetherness. In the dimension of the family's economic situation, the presence of the autistic child affects the economic performance and family content, for the cost of treatment and community with the vehicle for the child's treatment (39,40). Considering the fact that, the present study was conducted on mothers of normal and autistic children in Tehran with different lifestyle and demographic characteristics, it seems that the incident and maintain factors of behavioral problems such as children of these families are very different, which can limit the generalization of the results, interpretations and etiology documents of the disorder that should be addressed. Therefore, it is recommended that, further researches done on the population that are more homogeneous in terms of lifestyle and families demographic characteristics such as socio-economic classes, educational level and job status. In addition to this, performing experimental researches with emphasis on the role of parental characteristics and family functions on the autistic children is recommended. It is

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suggested to specialists in the field of children and students with autism disorder, to pay attention to the role of non-efficient neuroticism personality trait of mothers and family's process-content function of children with autism and the context of modification of neuroticism trait of mothers is provided, and identified the undesirable and non-efficient dimensions of the family process and content, and provide the necessary training for the psychological empowering of mothers.

Conclusion

Having a child with autism disorder, increases the level of mental stress and anxiety of mothers which gradually intensifies the neuroticism personality trait of mothers and reduce the effective family functions into aspects of the family process and content and mutually, these factors intensify the symptoms of autism disorder in children.

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