

# International Journal of Science and Research Archive

eISSN: 2582-8185 Cross Ref DOI: 10.30574/ijsra

Journal homepage: https://ijsra.net/



(RESEARCH ARTICLE)



# Parenting style of mothers with generalized anxiety disorder and behavioral problems in their children

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International Journal of Science and Research Archive, 2023, 08(01), 754-760

Publication history: Received on 29 December 2022; revised on 06 February 2023; accepted on 08 February 2023

Article DOI: https://doi.org/10.30574/ijsra.2023.8.1.0140

#### **Abstract**

The study aimed to examine the role of mother's generalized anxiety disorder on their parenting style and its association with behavioral problems in their children.

**Material and Methods:** A cross-sectional, matched-control group design, using purposive sampling method was employed. Total sample of forty mothers with their children were recruited. Twenty mothers diagnosed with Generalized Anxiety Disorder (GAD) and the remaining 20 were healthy mothers, in study and healthy control groups respectively, all matched on age, gender and education. MINI International Psychiatric Interview (MINI 7.0), Hamilton Anxiety Rating Scale (HAM-A), and Parenting Styles and Dimensions Questionnaire (PSDQ) were administered on all mothers. Behavioral Assessment System for Children 3<sup>rd</sup> (BASC-3) was administered to assess presence of or possibility of developing behavioral problems in their children.

**Results** and **Conclusion:** The study findings highlighted that as compared to healthy mothers who implemented more of authoritative style of parenting, mothers with GAD, on the other hand, employed more of authoritarian and permissive styles of parenting. Further, authoritative parenting style was significantly and negatively correlated with scores on HAM-A in the study group. Significant numbers of the children of mothers with GAD found to have clinically significant scores and were at-risk for developing internalizing problems, inattention/ hyperactivity, problems related to personal adjustment and emotional problems as compared to children of healthy mothers in the present study.

Keywords: Generalized Anxiety Disorder; Parenting style; Mothers; Behavior problems; Children

# 1. Introduction

Examining the possible impact of mother's psychopathology on their children, recent literature has suggested that exposure to mother's depression and anxiety disorders may negatively influence the child's development in infancy<sup>1</sup>, early childhood<sup>2-3</sup>, and at school entry<sup>4-5</sup> and is seen to be associated with poor birth outcomes<sup>1</sup>, elevated stress response<sup>1,6-7</sup>, negative temperament<sup>8</sup>, social, emotional and behavioral problems<sup>9-10</sup>, impaired cognitive performance<sup>11</sup> and compromised physical health<sup>2</sup>. In one of the studies, the highest rates of anxiety disorders in children were found amongst those whose parents had anxiety disorder, dysthymia as compared to healthy parents. This risk was seven times that of healthy parent's children and twice that of dysthymic individual's children<sup>12</sup>.

Literature on relationship between parenting style and children's behavior problem have highlighted that a child's family may not only be an economic arrangement, but also a cultural and social arrangement which may tend to have a significant influence on the behavior of the child and development of their character. Thus, ignorance in their parenting may possibly lead them towards unwanted damaging effects that ultimately may create behavioral problems in children<sup>13</sup>.

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This may call attention to the role of parenting, which is a process of promoting and supporting the physical, emotional, social and intellectual development of a child from infancy to adulthood. Parenting style is defined as the beliefs, values, and actions parents employ in interactions with their children<sup>14</sup>. Further, past studies have concluded that while high authoritative parenting style may be negatively associated with internalizing symptoms of children<sup>15</sup>, mother's permissive parenting style may be positively associated with child's externalizing behavior problems<sup>16</sup> like anti-social behavior<sup>17</sup> and authoritarian parenting style may also be highly associated with externalizing behavioral problems<sup>18</sup> like delinquent behavior<sup>19</sup>. Considering these studies, it still remains unclear, whether parenting style of mother with a diagnosis of Generalized Anxiety Disorder (GAD) could be any different or similar from mothers without any psychiatric disorders. It also remains questionable whether and to what extent the parenting style of mothers with GAD, could be related to emotional or behavioral problems in their children. Taking these findings into account, the present study was conducted with the aim to examine the impact of GAD in mothers on parenting style and its association with behavioral problems among their children.

#### 2. Material and methods

Total sample of 40 mothers having children between the age-range of 8-11 years were recruited in the present study from the territory health care institute of north India, using purposive sampling method. The study was approved by the Intuitional Ethics Committee. The study groups included 20 mothers diagnosed with Generalized Anxiety Disorder (GAD), and the remaining 20 healthy mothers recruited in the healthy control group. Both groups of mothers were matched on age, gender and education. The diagnosis of GAD as per DSM 520 was made by the consultant psychiatrist and was confirmed on MINI International Psychiatric Interview (MINI 7.0.2)21. Mothers in the study group were receiving standard treatment and were in stable condition with duration of illness was minimum 1 year. Those mothers with GAD having co-morbid organic problems i.e. head injury, loss of consciousness, epilepsy or any specified disability, and on treatment for any chronic medical illness, having other family member with psychiatric, medical illness or any disability were excluded on the basis of clinical interview. Children between the age group of 8-11 years of male/female gender, attending school regularly and having siblings in same age range were included in the study and control groups. However, children with organic problems i.e. head injury, loss of consciousness, epilepsy or any specified disability and on treatment for any chronic medical illness were not included in the study. Informed consent was obtained from all the participants and assent from the parents of the children was taken. Socio-demographic and clinical details of all the participants were recorded on a record form. Hamilton Anxiety Rating Scale (HAM-A)<sup>22</sup> and Parenting Styles and Dimensions Questionnaire (PSDQ)<sup>23</sup> tools were administered on mothers. Behavioral Assessment System for Children 3rd (BASC-3)24 tool was administered to assess the presence of or possibility of developing behavioral problems in their children. It was a self-reported questionnaire administered with children. Obtained findings were analyzed by using statistical methods i.e. percentage, frequency, mean, standard deviation, t-test and Pearson's correlation with the help of statistical software.

# 3. Results and discussion

The educational qualifications of all the mothers were 10th and above in both the groups. 65% of the mothers were housewives in study group and 50% mothers were housewives in healthy control group. 70% mothers were from nuclear family in both the groups, while the rest were from joint family. Mean age of their children was 9.85 years in study group and 9.90 years was in children of control group. In terms of socio-demographic characteristics, both groups were similar as there were no significant differences found. The mean (SD) of the mothers age in the study group was 40.05 (2.91) years compared to 38.80 (3.20) years (Table 1). The difference between the groups was insignificant. Mother with GAD had mean (SD) of 20.85(1.87) on HAM-A. Parenting styles of mothers with GAD compared to healthy mothers reflected high mean for each dimension of authoritative parenting style (connection, regulation, autonomy granting) for healthy mothers (Table 1) indicating that compared to mothers with GAD, healthy mothers provided more warmth and support, reasoning and democratic participation. These findings were similar with earlier studies in which anxious mothers when compared to healthy control mothers were found to be less warm and positive in their interactions with their children, provided lesser granting of autonomy and were relatively more critical and catastrophizing<sup>25,26</sup>. Further, compared to healthy mothers, mothers with GAD were found to have higher scores on authoritarian parenting style, suggestive of increased use of physical coercion and verbal hostility. These findings were consistent with past literature<sup>27</sup> (Table 1). Higher scores on permissive style of parenting were found in mothers with GAD (Table 1) highlighting higher degree of indulgence in children.

Further, correlation was computed between clinical anxiety and parenting style employed by mothers with GAD (Table 2). Significant negative correlation was found between authoritative parenting style and clinical anxiety. This indicated that anxiety was negatively associated with authoritative style of parenting in mothers with GAD. In other words, these

mothers with moderate levels of anxiety failed to employ authoritative style of parenting with their children, whereas the correlation between parenting style and anxiety was insignificant among healthy mothers (Table 3).

Further, presence of behavioral problems among children of mothers with GAD and children of healthy mothers were compared. Result findings indicated that children of mothers in both groups did not experience any significant school problem as assessed and reported by the children (Table 4).

The study assessed internalizing problems of children which included atypicality, locus of control, social stress, anxiety, depression and sense of inadequacy. Among children of mothers with GAD, 40% had clinically significant scores and 15% had at-risk scores on a self-rated BASC-3 tool. None of the children of healthy mothers had clinically significant scores or at-risk scores on internalizing problem dimension in the study. These findings highlighted that significant number of children of mothers with GAD might possibly be facing or may be at a risk of facing significant inwardly-directed distress. This distress could also point towards vulnerability factor in children of mothers with GAD which was seen to be consistent with previous literature findings<sup>28-29</sup>.

While assessing for inattention/hyperactivity, 15 % of children of mothers with GAD were in clinically significant range and 10% were at-risk of developing inattention/hyperactivity. None of the children in the control group had clinically significant or at-risk score on this dimension in the present study. These findings were consistent with previous studies highlighting the role of highly anxious mothers in their child's inattention problems<sup>30</sup> (Table 4).

Personal adjustment among children of mothers in study and control groups was assessed. The personal adjustment dimension in the study comprised of adaptive scales, namely, interpersonal relations, relations with parents, self-esteem and self-reliance, each assessing child's positive adjustment. Among children of mothers with GAD, 25% were under clinically significant range and 25% were at-risk range whereas 5% of children of healthy mothers were at-risk range for personal adjustment dimension. These findings indicated that as compared to children of mothers with GAD, children of healthy mothers were less susceptible to developing interpersonal problems, poor relations with parents, low self-esteem or self-reliance (Table 4).

**Table 1** Mean, Standard Deviation and t values of parenting style and anxiety between groups

Variables	Groups				
	Study group(n=20)		Healthy control group(n=20)		t values
	Mean	SD	Mean	SD	
Mother's age	40.05	2.91	38.80	3.20	1.29
HAM-A	20.85	1.87	5.700	4.31	14.39**
Authoritative					
Connection	3.22	0.49	4.55	0.36	-9.67**
Autonomy Granting	2.72	0.72	4.18	0.59	-6.93**
Regulation	2.82	0.70	3.98	0.40	-8.31**
Overall Authoritative	2.92	0.60	4.22	0.35	-6.38**
Authoritarian					
Physical Coercion	3.77	1.08	1.55	0.80	7.37**
Verbal Hostility	3.96	0.81	1.72	0.82	8.61**
Non-reasoning	3.27	1.10	1.41	0.49	6.85**
Overall Authoritarian	3.63	0.95	1.54	0.69	7.19**
Permissive	2.69	1.03	1.61	0.72	3.81**

HAM-A Hamilton Anxiety Scale; 0.05 level of significance indicated by \*; 0.01 level of significance indicated by \*\*

Emotional symptoms index, considered as a most global indicator of serious emotional disturbance, particularly, internalized disorders were compared for children of mothers with GAD and healthy mothers. Further, this index comprised of 4 scales from internalizing problems (social stress, anxiety, depression, and sense of inadequacy) and two

scales from personal adjustment composite (Self-esteem and Self-Reliance). The study findings highlighted that 20 % of children of mothers with GAD had clinically significant scores while 40 % were at-risk range. None of the children of healthy mothers had clinically significant or at-risk scores. This suggested that children of mothers with GAD could be undergoing or may be highly vulnerable to developing serious emotional disturbance.

Table 2 Pearson Correlation between parenting style of mothers with Generalized Anxiety Disorder in study group

Parenting styles	HAM-A			
Authoritative				
Connection	-0.61**			
Regulation	-0.39			
Autonomy Granting	-0.56**			
Overall Authoritative	-0.59**			
Authoritarian				
Physical Coercion	0.31			
Verbal Hostility	0.17			
Non-reasoning	0.30			
Overall Authoritarian	0.33			
Permissive				
Indulgent	0.17			

<sup>\*</sup> Correlation is significant at 0.05 level; \*\* Correlation is significant at 0.01 level

**Table 3** Pearson Correlation between parenting style of healthy mothers in healthy control group

Parenting styles	HAM-A			
Authoritative				
Connection	-0.07			
Regulation	-0.29			
Autonomy Granting	0.05			
Overall Authoritative	-0.10			
Authoritarian				
Physical Coercion	-0.07			
Verbal Hostility	-0.12			
Non-reasoning	-0.16			
Overall Authoritarian	-0.10			
Permissive				
Indulgent	0.05			

Table 4 Behavioral problems among children of mothers in study versus healthy control group

	Groups							
Scales	Study group(n=20)		Healthy control group(n=20)					
	f	%	f	%				
School problems composite								
Clinically significant	0	0	0	0				
At-Risk	0	0	0	0				
Average	10	50	12	60				
Low	10	50	7	35				
Very Low	0	0	1	5				
Internalizing problems								
Clinically significant	8	40	0	0				
At-Risk	3	15	0	0				
Average	9	45	11	55				
Low	0	0	8	40				
Very Low	0	0	1	5				
Inattention/hypera	Inattention/hyperactivity composite							
Clinically significant	3	15	0	0				
At-Risk	2	10	0	0				
Average	12	60	8	40				
Low	3	15	10	50				
Very Low	0	0	2	10				
Personal adjustmen	t composit	e						
Clinically significant	5	25	0	0				
At-Risk	5	25	1	5				
Average	8	40	14	70				
High	2	10	4	20				
Very High	0	0	1	5				
Emotional symptoms index								
Clinically significant	4	20	0	0				
At-Risk	8	40	0	0				
Average	7	35	12	60				
Low	0	0	5	25				
Very Low	1	5	3	15				

# 4. Conclusion

Mothers with GAD were more prone to employ authoritarian and permissive styles of parenting. Increase in clinical anxiety of mothers with GAD was shown to have negative association to authoritative style of parenting. Healthy

mothers were more susceptible to implement authoritative parenting style. Children of mothers with GAD had clinically significant scores and were at-risk for developing internalizing problems, inattention/ hyperactivity, problems related to personal adjustment and emotional problems as compared to children of healthy mothers.

### **Future Directions**

This study can be replicated in larger community sample and to include both parents so that the findings can be representative of a larger population and a better understanding for effective intervention and management of the problems related to ineffective parenting styles of mothers with GAD.

# Clinical Implications

Children of the mothers with GAD visiting for medical follow-up can be evaluated to screen for susceptibility of their children undergoing or at-risk of undergoing any behavioral problems. Also, mothers of the children with behavioral problems visiting outpatient department of psychiatry need to be evaluated, to assess their parenting style and presence of significant anxiety. Early screening and appropriate psycho-education may prevent future occurrence of various psychiatric disorders in children of mothers with GAD.

# Compliance with ethical standards

Disclosure of conflict of interest

No conflict of interest.

Statement of ethical approval

The study was approved by the institutional ethics committee.

Statement of informed consent

Informed consent was obtained from all individual participants included in the study.

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