

Paternal psychopathology among children with generalised anxiety disorder (GAD)

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Abstract

The aim of the current study was to identify the role of psychopathology and family functioning among fathers of children with generalised anxiety disorder (GAD). A total of 198 fathers (including 95 fathers of children with GAD and 103 fathers of normal children) completed two questionnaires: i) Socio-demographic Questionnaire; ii) Family assessment device. Results show that there are significant differences between the fathers of both groups on the subscales of affective responsiveness, behaviour control and general function ($P < 0.05$). There were no significant differences between two groups on dimensions of problem-solving, communication, roles and affective involvement ($P > 0.05$). On the whole, the study showed that GAD is associated with some degrees of paternal psychopathology and family dysfunction. These results support findings of other psychopathological research studies that revealed GAD is a moderately familial disorder.

Keywords: Psychopathology, children, generalised anxiety disorder.

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1. Introduction

Generalised anxiety disorder (GAD) is defined in DSM-IV as 'excessive and pervasive worry, accompanied by a variety of somatic symptoms that causes significant impairment in social or occupational functioning or marked distress in the patient' (APA, 1994). GAD is a chronic disorder that often arises in childhood and persists until late life (Le Roux, Gatz & Wetherell, 2005). The real nature of GAD across lifespan remains incompletely understood (Mackintosh, Gatz, Wetherell, Pederson, 2005). A variety of risk factors are cited to explain the development of GAD. Experts believe that GAD runs in families (Reyes, 2004). Some research studies have speculated that early onset GAD should be associated with high degrees of psychopathology (Brown, 1997). For example, Kendler, Neale, Kessler, Heath and Eaves (1992) concluded that GAD is a moderately familial disorder.

Children of parents who both suffer from psychopathology may be at incremental risk for anxiety disorders (Merikangas, Avenevoli, Dierker & Grillon, 1999). The association between parental psychopathology and mental disorder in their children has been prominent areas of research in child clinical psychology and psychiatry. A positive association has been empirically established in several studies (Turner, Beidel & Costello, 1987). But, there is no clear relationship established between a specific parental psychiatric disorder and child psychopathology (Nordahl, Ingul, Nordvik & Wells, 2006). A possible exception maybe anxiety disorder, which seems to aggregate within families (Merikangas et al., 1999). Clinical research on children has historically dominated on mothers as the primary source for ill effects on children. Most studies on family psychopathology have focused on mothers while ignoring fathers (Phares, 1996). Unfortunately, there has been a limited study within the context of father-child relationships in childhood psychopathology (Greco & Morris, 2002). It is now being generally recognised that fathers may also be an important source of risk for mental ill-health in their children (Nordahl et al., 2006).

Recent efforts have been made to identify family factors associated with the development of anxiety disorders (Ginsburg, Silverman & Kurtines, 1995). A comprehensive review by Rapee (1997) suggested that parent overprotection plays a strong role in the onset and maintenance of GAD. Others indicate that parental overprotection is related to some, not all types of anxieties (Greco & Morris, 2002). Silove, Parker, Hadzi-Pavlovic, Manicavasagar and Blaszcynski (1991) found that individuals with GAD were more likely than controls to have experienced overprotective parenting. There is growing evidence on deleterious childhood correlates associated with parental rejection and overprotection (Dadds & Barrett, 1996). Little is known, however, regarding the specificity of these findings (Greco & Morris, 2002). For instance, retrospective and observational research have linked parenting styles with childhood GAD (Barrett, Rapee, Dadds & Ryan, 1996).

Krohne and Hock (1991) suggested that parental over-controls tend to interfere with children's acquisition of effective problem-solving skills, resulting in failure to learn to deal successfully with stressful life experiences. Dumas, La Freniere and Serketich (1995) observed parent-child interactions, noting that anxious dyads were characterised by relatively high parental control and avoidance. An over controlling parenting style is thought to be influenced by both child and parental psychopathology (Craske & Waters, 2005). Also, over controlling and rejecting parenting are linked to many other forms of child psychopathology (Schwartz, Dorer, Beardslee, Lavor & Keller, 1990). A study by Barrett et al. (1996) indicated that parents of anxious children differ from other parents in terms of the way they encourage and teach their children to respond to ambiguous threat cues.

In one study, normal fourth-grade children's ratings of father's granting of autonomy were positively associated with teacher's ratings of childhood anxiety, accounting for 9% of variance—a medium effect (Mattanah, 2001). Recent studies have shown significant associations between perceived parental psychological control and the presence of both anxiety symptoms (Muris & Merckelbach, 1998) and clinical anxiety disorders (Siqueland, Kendall & Steinberg, 1996) in children. Greco and Morris (2002) investigated observed and reported parenting style in fathers of socially anxious children. Participants were grouped as high social anxiety and low social anxiety. Results

demonstrated significant differences between groups in terms of paternal behaviour. Fathers of highly socially anxious children exhibited more physical control than fathers of children in the low social anxiety group. Similar findings have been found using non-clinical, community samples.

Another proposed risk factor for anxiety disorders is an anxious attachment style (Dadds, Seinen, Roth & Harnett, 2000). Attachment theory stresses the development of secure versus insecure relations between parents and children or risk factors in the aetiology of emotional disorders (Main, 1996). Manifestation of insecure attachment includes avoidant and anxious/ambivalent styles (Dadds et al., 2000). Under these circumstances, it would be apt to explore the role of fathers in the development of psychopathology of GAD in their children.

2. Method

2.1. Hypothesis

There will be a significant difference in paternal psychopathology between fathers of children with GAD and those of normal controls.

2.2. Operational definition

Psychopathology refers to the study of different family dimensions such as general functioning, problem-solving, communication, roles, affective involvement, affective responsiveness and behaviour control.

2.3. Design

The present study is based on a cross-sectional comparative design involving two groups of fathers of children with GAD and control group of fathers without children with GAD.

2.4. Sample

The sample comprised of 198 fathers. This included 95 fathers of children with GAD and 103 fathers of normal children. Fathers were in the age range of 35–55 and children were in the age range of 7–12. Children in the non-clinical control group were age and sex-matched group. Fathers of children with known organic pathology, neurological disorders, multiple health problems, other type of psychiatric disorders, mental or physical disabilities, learning difficulties and single-parent kids were excluded both in the clinical and control groups.

2.5. Tools

The tools used in the present study included: i) Socio-demographic Questionnaire (SDQ) ii) Family Assessment Device (FAD).

1. Socio-Demographic Questionnaire:

The SDQ was developed by the investigators for use in the present study. The questionnaire consisted of questions regarding details of age, education, occupation, economic status, type of house, marital length for fathers and questions about children such as age, gender, grade, average, birth order and number of siblings.

2. Family Assessment Device:

The FAD (Epstein, Baldwin & Bishop, 1983) is based on the Mc Master Model, a clinically oriented conceptualisation of families. The model describes organisational structural properties of the family group and the pattern of transactions among family members which have been found to distinguish between healthy and unhealthy families. FAD has seven subscales, general functioning subscale, which

assesses overall health and pathology of the family and one subscale for each of the six key dimensions: problem-solving, communication, roles, affective involvement, affective responsiveness and behaviour control. The FAD is appropriate for families who have a member with emotional physical or psychological disorders and for families whose members do not possess these conditions. The FAD consists of 60 items rated with four-point Likert response format (from strongly agree to strongly disagree). Both the internal reliability and validity of the FAD have been demonstrated in prior research with Cronbach's Alpha on the scales ranging from 0.74 to 0.92 (Epstein et al., 1983). The dimensions of FAD are consistently found by researchers/clinicians and family life educators to be associated with healthy family relationship (Epstein et al., 1993).

2.6. Procedure

This study was carried out at Tehran Psychiatric Institute, Iran. Those children were diagnosed as GAD according to DSM-IV- criteria by the qualified psychiatrists, included in the clinical group. Since there is high co-morbidity among anxiety disorders (Manassis, 2004) and also because rates of diagnostic agreement for GAD are lowest among the anxiety disorders (Craske & Waters, 2005), children with GAD re-interviewed using the Diagnostic Interview Schedule and those children didn't fulfilled DSM-IV criteria excluded from the study. All fathers were the biological fathers of their child and they had raised the child themselves. Those fathers and children who fulfilled the inclusion/exclusion criteria were selected for both groups. Fathers of normal children consisted of age-matched individuals that living in Tehran. They were selected on the basis of the cluster sampling technique. For a better understanding of questionnaire content, education level of fathers in both groups was considered as high school and above. Fathers were asked to complete the Persian version of FAD (Sanai Zaker, Alaghband & Hooman, 2000). Self-report questionnaires on each father administrated individually and separately in two sessions.

2.7. Statistical analysis

Descriptive statistical methods such as mean, standard deviation, frequencies and percentages were used for statistical analysis. Chi-Square test and Independent t-test were also done to compare the differences between groups. SPSS version 11.0 was used to mention statistical techniques.

3. Results

The socio-demographic characteristics of fathers and children in both groups are presented in Table 1 and Table 2. About 53.40% of fathers were in the age range of 35–40 years. Data show that the age mean for fathers of children with GAD was 40.87 years (SD \pm 4.44) and for fathers of normal children was 40.74 years (SD \pm 3.92). The age means of children with GAD were 9.90 years (SD \pm 1.47) and for control group 9.55 years (SD \pm 1.66). In the clinical group, about 61.05% children were as a first child and 27.37% of these children were an only child (without any siblings), while these percentages for normal children group were 54.37% and 15.53%, respectively. Results of chi-square test showed that there were significant differences between children of two groups in child's birth order (χ^2 : 9.324, df: 3, $p < 0.05$), child's average (χ^2 : 8.444, df: 2, $p < 0.05$), father's education levels (χ^2 : 7.734, df: 3, $p < 0.05$) and economic status of family (χ^2 : 17.754, df: 3, $p < 0.05$). There were not significant differences for other demographic variables ($p > 0.05$)

Cronbach's alpha was used to compute the internal consistency of the FAD subscales. The alpha coefficient for the seven subscales showed adequate internal consistency. To examine differences in FAD subscales between the two groups, a *t*-test was conducted. Results revealed some significant differences between fathers with GAD and normal children. FAD subscales scores of the groups are presented in Table 3. Scores of affective responsiveness ($t = -2.701$, df: 196, $p < 0.05$), behaviour control ($t: -3.454$, df: 196, $p: < 0.05$) and general function ($t: -3.1632$, df: 196, $p: < 0.05$) were significantly different between groups. In other words, fathers of children with GAD scored

significantly higher (unhealthy) than the control group on three of seven dimensions of FAD. Results also revealed non-significant differences between two groups on dimensions of problem-solving ($t = -1.530$, $df: 196$, $p > 0.05$), communication ($t: -1.267$, $df: 196$, $p > 0.05$), roles ($t: -1.215$ $df: 196$, $p > 0.05$) and affective involvement ($t: -1.262$, $df: 106$, $p > 0.05$).

**Table 1. Comparative distribution of domain-wise scores on FAD in father's groups
NS (Non-Significant), S (Significant).**

Domain	Cronbach's Alpha	Number Of Items	Maximum Score	Fathers of Normal Children (N: 103)		Mothers of GAD Children (N: 95)		Probability
				Mean	SD	Mean	SD	
Problem Solving	0.61	6	24	12.495	1.944	12.968	2.398	-1.530 $P > 0.05$ NS
Communication	0.67	9	36	18.902	2.998	19.452	3.103	-1.267 $P > 0.05$ NS
Roles	0.50	11	44	23.446	2.491	24.052	3.868	-1.2150 $P > 0.05$ NS
Affective Involvement	0.52	7	28	15.582	2.36	16.073	2.979	-1.262 $P > 0.05$ NS
Affective Responsiveness	0.44	6	24	11.767	2.092	12.610	2.303	-2.701 $P < 0.05$ S
Behavioural Control	0.57	9	36	17.543	2.584	18.968	3.207	-3.454 $P < 0.05$ S
General Functioning	0.79	12	48	23.640	3.525	25.463	4.551	-3.163 $P < 0.05$ S
Total	0.90	60	240	123.378	12.539	129.589	16.979	-2.943 $P < 0.05$ S

4. Discussion

The present study examined psychopathology in fathers of GAD Children as compared to normal participants. Consistent with the hypothesis, fathers of children with GAD exhibited some differences in psychopathology dimensions compared to fathers of normal children. These findings are consistent with research studies on fathers of anxious children. For example, Merikangas et al. (1999) suggest that children of parents who both suffer from psychopathology may be at incremental risk for anxiety disorders. Two meta-analyses of parental health and child internalising or externalising behaviour problems have been shown that externalising problems in children might be equally related to psychopathology in mothers as well as in fathers (Lamb, 1997). Findings of the study showed that fathers of children with GAD had some psychopathology in comparison with the control group. Unfortunately, no study to date has evaluated the risk associated with the paternal GAD, but a growing body of the study suggests that childhood anxiety is familial (McCulre, Brennan, Hammen & Brocque, 2001). A recent meta-analysis by Newman and Bland provides evidence that GAD is familial (Newman & Bland, 2006).

The result emphasises the importance of socio-demographic variables. The demographic results revealed that there were some significant differences in psychosocial factors such as father's education levels, economic status of the family, child's birth order and child's average between two groups of fathers and children in clinical and non-clinical groups. According to Brown, Fulton, Wilkeson and Pety (2000), psychosocial factors are considered in current conceptual models to be implicated in the origins of GAD. Research indicates that several factors such as socio-demographic variables are related to the occurrence of GAD (Mackintosh et al., 2005). About 88.42% children with GAD were as a first child or only child. The parents may be over-protective and may spoil their only child (Adler, 1956). Leman (1998) believes that because only children do not have the experience of sharing/dealing with siblings, this leaves them self-centred by default. With attention to FAD results,

fathers of children with GAD showed some psychopathology in several family dimensions such as affective responsiveness, behaviour control and general function. These problems may affect their relations with other family members, especially with their children. Although fathers of children with GAD showed significant differences on three of seven dimensions in FAD, but in all subscales, their scores were higher (unhealthy) in comparison with the control group.

The few studies including fathers have relied exclusively on self-report and/ or retrospective methods. Results generally have been consistent, indicating that socially anxious adults remembered both their mothers and fathers as being overprotective (Rapee & Melville, 1997) and rejecting (Arrindel, Emmelkamp, Monisma & Brilman, 1983). Recent studies have shown significant associates between perceived parental psychological control and the presence of both anxiety symptoms (Muris & Merckelbach, 1998) and clinical anxiety disorders (Siqueland et al., 1996) in children (McCulre et al., 2001). Parents of anxious children are more likely to be controlling, less granting of autonomy and less likely to suggest positive consequences than are parents of controls (Siqueland et al., 1996). A comprehensive review by Rapee (1997) suggested that parental overprotection plays a strong role in the onset and maintenance of GAD. Other data indicate that parental overprotection is related to some, but not all, types of anxiety (Greco & Morris, 2002). Silove et al. (1991) found that individuals with GAD were more likely than controls to have experienced overprotective parenting. A retrospective and observational research have linked parental rejection and overprotection with childhood GAD (Barrett et al., 1996). According to Ballash, Leyfer, Buckley and Woodruff-Borde (2006) one familial characteristic that may promote the development of anxiety is the construct of parental control.

Family intervention has an important role in the treatment of anxiety disorders. According to Ginsburg and Schlossberg (2002), recently focus has turned on to family involvement in the treatment of childhood anxiety disorders. However, the family has a complex structure with many different dimensions. Family therapist should notice to specific targets for family intervention. Results of such studies can provide a clear perspective in family therapy of childhood GAD. Despite these results, it is important to highlight several limitations and implications of the study. Firstly, paternal style and parenting behaviours are different between various cultures and ethnic groups (Scott, Scott & McCabe, 1991). Concepts, such as 'strictness' or 'control' have very different meanings for families in different cultures (Wood, Mcleod, Sigman, Hwang & Chu, 2003). These ethnic and cultural differences may limit the generalisation of the findings. Secondly, it should be noted that paternal psychopathology in this study was measured only from the father's perspective. Children perspective about their fathers and family is also very important. One direction for future research will be to examine the relative and combined contributions of both fathers and children psychopathology in childhood GAD.

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Appendixes

Appendix 1. Distribution of overall scores on FAD in relation to various respondent-father variables.

Variable	Fathers of Normal Children			Fathers of GAD Children			T & P Value
	N	Mean	SD	N	Mean	SD	
Age:							
35-40	55	123.145	12.059	54	132.851	12.703	-4.092 P <0.05 S
41-45	36	124.861	13.062	26	129.000	13.508	-1.214 P >0.05 NS
46-50	10	120.800	12.664	11	120.272	30.887	0.050 P >0.05 NS
Higher than 50	2	116.000	22.627	4	115.000	26.166	0.046 P >0.05 NS
Education							
Diploma	49	125.387	13.093	29	128.413	20.444	-0.798 P >0.05 NS
Bachelor	44	121.681	11.919	50	129.020	15.927	-2.501 P <0.05 S
M.A	7	119.285	13.187	14	133.357	14.275	-2.180 P <0.05 S
PhD	3	125.000	10.148	2	134.500	3.535	-1.219 P >0.05 NS
Occupation							
Official	52	123.538	12.790	42	127.476	17.721	-1.250 P >0.05 NS
Private	40	122.850	13.361	43	133.000	14.581	-3.299 P <0.05 S
Other	11	124.545	8.394	10	123.800	21.780	0.105 P >0.05 NS
SES							
Low	9	121.555	13.201	13	124.153	23.653	-0.298 P > 0.05 NS
Middle	67	124.791	12.791	37	130.783	15.666	-2.163 P <0.05 S
High	24	121.166	12.606	30	130.900	14.671	-2.576 P <0.05 S
Excellent	3	115.000	18.357	15	128.733	18.729	-1.173 P > 0.05 NS

NS (Non-Significant), S (Significant).

Appendix 2. Distribution of overall scores on FAD in relation to various child variables in fathers groups

Variable	Normal Children			GAD Children			T & P Value
	N	Mean	SD	N	Mean	SD	
Age:							
7	14	128.142	8.056	5	128.000	11.113	0.031 P> 0.05 NS
8	19	128.473	12.258	15	130.266	12.085	-0.426 P> 0.05 NS
9	17	120.117	11.472	17	130.823	7.117	-3.270 P<0.05 S
10	20	118.750	13.305	21	135.476	12.492	-4.153 P<0.05 S
11	15	122.466	11.648	21	136.000	11.899	-3.393 P<0.05 S
12	18	123.277	14.728	16	112.000	27.337	1.363 P> 0.05 NS
Gender							
Boys	51	123.196	11.636	49	130.081	18.127	-2.269 P<0.05 S
Girls	52	123.557	13.478	46	129.065	15.847	-1.857 P> 0.05 NS
Birth Order							
1	56	124.000	10.912	58	132.189	14.326	-3.425 P<0.05 S
2	38	121.894	14.841	19	128.894	17.015	-1.598 P>0.05 NS
3	5	125.200	5.630	8	134.750	12.668	-1.571 P>0.05 NS
Last	4	126.500	18.717	10	111.700	24.152	1.092 P>0.05 NS
Number of							
Sibs							
46	121.347	13.663	27	132.740	11.534	-3.642 P<0.05 S	
1	27	123.481	11.294	26	126.384	18.048	-0.705 P>0.05 NS
2	7	132.000	9.146	6	120.666	24.410	1.145 P>0.05 NS
3	7	123.857	15.952	10	124.700	29.401	-0.069 P>0.05 NS
3+	16	125.062	10.233	26	133.461	11.125	-2.800 P<0.05 S
NIL							
NS (Non-Significant), S (Significant)							