

• Research Article •

Comparison of family functioning and social support between families with a member who has obsessive-compulsive disorder and control families in Shanghai

Jikun WANG*, Xudong ZHAO

Background: Family functioning plays an important role in the etiology and course of obsessive-compulsive disorder (OCD) so understanding the types of problems families with OCD patients have will help in the creation of OCD-specific family interventions.

Objective: Compare family functioning and social support of OCD patients and their co-resident parents to that of community controls and their co-resident parents.

Methods: Thirty-two psychiatric outpatients at the Affiliated East Hospital of Tongji University (in Shanghai) who met DSM-IV criteria for OCD and one of their co-resident parents and 31 community controls matched for age and years of education with the patients and one of their co-resident parents independently completed Chinese versions of the self-administered McMaster Family Assessment Device (FAD), which assesses seven dimensions of family functioning, and the Multidimensional Scale of Perceived Social Support (MSPSS), which assesses perceived support from family members, from friends and from other associates.

Results: All of the FAD dimension scores for both patients and their parents were in the unhealthy range (based on cut-off scores used in the Western version of the scale). With the exception of the Affective Involvement dimension of the FAD, patients with OCD and their parents reported significantly more poor family functioning and more poor social support than community controls and their parents. The concordance of patients FAD scores and their parents scores was significantly stronger than that of controls and their parents for the Problem Solving, Communication and Affective Involvement dimensions (all $p < 0.001$) but significantly weaker for the Behavioral Control dimension ($p = 0.009$). For all four groups of respondents the four measures of perceived social support were all positively correlated with each of the seven measures of family functioning, though several of the correlation coefficients did not reach statistical significance.

Conclusions: OCD, like several other psychiatric illnesses, is an illness that profoundly affects families in China. Interventions for OCD need to integrate family-based psychosocial approaches (e.g., family therapy) with individual-based biological and psychological interventions. Our finding that perceived social support—from family members and from others—are closely related to family functioning in all types of respondents highlights the central role of families in the personal identity and social networks of individuals in China.

Keywords: Obsessive-compulsive disorder; Family functioning; Social support

1. Introduction

Obsessive-compulsive disorder (OCD) is a common psychiatric condition with an estimated lifetime prevalence of 1%-3%^[1] that is characterized by recurrent obsessions or compulsions resulting in significant distress and social dysfunction^[2,3]. Family environmental factors—including inappropriate methods of parenting, frequent family conflict and weak family organization—have been implicated in the etiology of OCD^[4-9] and may influence the clinical course of the

disorder. Some studies also report high psychological stress and a high prevalence of psychological disorders in the caregivers of OCD patients^[10]. Based on a developing theoretical model of the relationship between OCD and family functioning, some researchers have assessed the potential benefit of family-based approaches in the treatment of children with OCD^[11].

There is little research about the relationship between the family environment and OCD in China^[12]. It

doi: 10.3969/j.issn.1002-0829.2012.01.003

Institute of Psychosomatic Medicine, the Affiliated East Hospital, School of Medicine, Tongji University, Shanghai, China

*Correspondence: liwangjk@gmail.com

is reasonable to believe that the family environment in China, like elsewhere, has a role in the onset and course of OCD and, conversely, that the occurrence of OCD in a family member affects family functioning and the level of stress of other (non-affected) family members. But the rapid social changes that have accompanied the recent economic transformation of the country have profoundly affected the functioning and structure of families in China, so the relationship of OCD and family functioning in China could be quite different from that reported in western countries.

To assess this question, the current study compares the family functioning and perceived level of social support in family members of Chinese families that do and do not have a member with OCD.

2. Subjects and Methods

2.1 Subjects

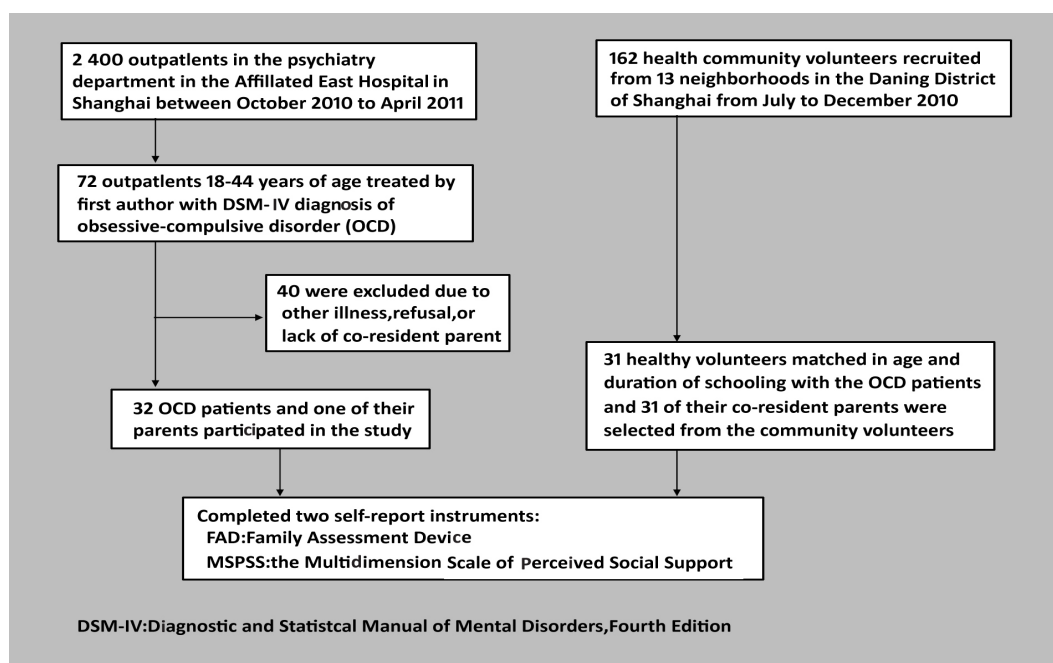
The enrollment of subjects is shown in Figure 1. Outpatients in the psychiatric department of the Affiliated East Hospital of Tongji University in Shanghai were recruited between October 2010 and April 2011. Those who met DSM-IV^[8] diagnostic criteria for OCD (as assessed by the first author) and had no serious comorbid neurological or physical illnesses or substance abuse problems were eligible. Of the 72 identified patients with OCD, 32 were willing to participate and had one co-resident parent who was willing to participate. Community volunteers were recruited from

13 neighborhoods of the Daning Sub-district in the Putuo District of Shanghai from July to December 2010; 31 subjects with no prior history of psychiatric illness, substance abuse or serious neurological or physical illness matched for age and years of education with the OCD patients and one of their co-resident parents were chosen from among 162 volunteers.

The 32 enrolled patients included 13 males and 19 females; their mean (SD) age was 26.8 (8.6) years (range=18-34), their mean duration of education was 13.0 (2.7) years; and their mean duration of illness was 11.7 (7.6) months. The 32 participating parents of patients included 20 mothers and 12 fathers; their mean (SD) age was 53.0 (6.4) years and their mean duration of education was 9.5 (4.1) years. The 31 enrolled controls included 13 males and 18 females; their mean (SD) age was 23.9 (5.4) years and their mean duration of education was 13.7 (3.1) years. The 31 participating parents of controls included 20 mothers and 11 fathers; their mean (SD) age was 51.4 (6.3) years and their mean duration of education was 10.1 (2.2) years. There were no significant differences in the gender, age or educational level between patients and controls or between patients' parents and controls' parents.

This study was approved by the local Institutional Review Board of Tongji University School of Medicine. Written informed consent was obtained from all subjects after an explanation of the study.

Figure 1. Flowchart of the study



2.2 Methods

OCD patients and their selected parents separately completed the McMaster Family Assessment Device FAD^[13] and the Multidimensional Scale of Perceived Social Support (MSPSS)^[14]. The community controls and their parents completed the scales in their homes or in the office of the local resident's committee while being monitored by a researcher. On average it took respondents 20 minutes to complete the two scales.

The FAD is a 60-item self-report inventory that measures the perceptions of respondents about seven dimensions of family functioning over the prior week: general functioning (12 items); problem solving (6 items), which reflects the ability of the family to resolve problems that can disrupt effective family functioning; communication (9 items), which reflects how family members exchange information with each other; roles (11 items), which reflects how the family assigns responsibilities in the family to ensure fulfillment of the family functions; affective responsiveness (6 items), which reflects whether family members experience and respond to the full spectrum of feelings experienced by humans; affective involvement (7 items), which reflects the family's ability to care about and be interested in each other; and behavior control (9 items), which reflects the rules that the family adopts to handle dangerous situations. Each of the items is scored on a 1-4 Likert scale with higher scores representing worse functioning. In western samples the internal consistency of the seven dimension scores are good (alpha=0.72-0.92)^[13], the test-retest reliability is good (ICC=0.81-0.87)^[15] and cutoff scores have been established for distinguishing normal and pathological functioning^[15]. The English version of the FAD was translated into Chinese (in Hong Kong), back translated into English, and then revised based on the recommendations of the originators of the English FAD to ensure that the items reflected the original meaning. The validity and reliability of the Chinese FAD has been demonstrated in Hong Kong^[16-17]: the internal consistency of the seven dimensions is fair to excellent (alpha=0.53-0.94) and the test-retest reliability is acceptable (ICC=0.53-0.81). The current study uses a mainland Chinese version of the FAD^[18] that is somewhat different from the Hong Kong version; the reliability and validity of this mainland Chinese version of the scale have not been formally assessed. No cut-off scores for pathological levels of functioning have been established for Chinese versions of the scales.

The MSPSS is a 12-item self-report scale with responses scored on a seven-point Likert scale (from 1=strongly disagree to 7=strongly agree) that measures perceptions of social support over the prior week from family members, from friends, and from other associates. A total score and three four-item subscale scores are computed based on the responses; higher

scores represent less social support. The internal consistency of the total score and subscale scores of a Chinese version of the scale used in Hong Kong were excellent (alpha=0.86-0.94)^[19]. In the current study we used a slightly revised version of the Hong Kong version of the scale appropriate for mainland Chinese respondents^[20]; the reliability and validity of this mainland version of the scale have not been formally assessed.

2.3 Statistical methods

Statistical analyses were conducted with SPSS 13.0. The seven dimension scores for FAD reported are the mean item scores (range 1-4) for all items in the corresponding dimension. The total and subscale scores for the MSPSS are the sum of the corresponding item scores. T-tests for independent samples were used to compare results between the patients and controls scores and between patients' parents and controls' parents scores. Paired t-tests were used to compare results between patients and their parents and between controls and their parents. The concordance of subjects' and their parents' perception of family functioning was assessed using intraclass correlation coefficients. A comparison of the concordance in perceptions of family functioning for patients and their parents versus that for controls and their parents was based on estimating the confidence interval of the difference score between the two ICC values using a bootstrap procedure that sampled 1,000 times with replacement. The relationship of perceived family functioning and perceived social support was assessed using Pearson correlation coefficients; the correlation coefficients of patients and patients' parents were compared to those for controls and controls' parents using t-tests. Linear regression models were employed to identify individual factors associated with overall perceived social support, in patients' and their parents and in controls and their parents. Statistical significance was set at an alpha level of 0.05 (two-sided).

3. Results

Including results from all 126 respondents, the internal consistency of the seven FAD dimension scores was fair (alpha=0.67-0.79), and that of the total and subscale MSPSS scores was good (alpha=0.88-0.94).

3.1 Comparison of family functioning and perceived social support between groups

With the exception of the Affective Involvement dimension the mean scores for the other six dimensions of family functioning assessed by the FAD were all significantly higher in patients than in controls and significantly higher in patients' family members than in controls' family members. These results can be seen in Table 1. The mean dimension scores for the patient

Table 1. Comparison of mean (SD) FAD and MSPSS scores between obsessive-compulsive disorder patients, community controls and their family members

Scale/Dimension	OCD patients (n=32)	Parents of OCD patients (n=32)	Normal controls (n=31)	Parents of normal controls (n=31)	Compare results of subject and subjects' parent				Compare patients and controls t-test	Compare patients' parents and controls' parents t-test
					OCD patient group		Control group			
					paired t-test	ICC	paired t-test	ICC		
Family Assessment Device (FAD)[®]										
General Functioning	<u>2.43</u> (0.41)	<u>2.30</u> (0.30)	1.99 (0.29)	1.92 (0.27)	2.13*	0.55**	1.21	0.42**	4.94**	5.03**
Problem Solving	<u>2.51</u> (0.29)	<u>2.38</u> (0.35)	1.99 (0.24)	1.99 (0.31)	2.61*	0.48**	1.27	0.17	7.69**	4.49**
Communication	<u>2.52</u> (0.41)	<u>2.36</u> (0.34)	2.15 (0.19)	2.12 (0.26)	0.16	0.56**	0.70	0.10	4.58**	2.99**
Roles	<u>2.44</u> (0.27)	<u>2.45</u> (0.26)	2.23 (0.23)	2.26 (0.25)	1.63	0.34*	0.91	0.40*	3.34**	2.95**
Affective Responsiveness	<u>2.59</u> (0.44)	<u>2.48</u> (0.37)	2.17 (0.44)	2.19 (0.39)	0.93	0.59**	1.99	0.54**	3.84**	2.99**
Affective Involvement	<u>2.31</u> (0.52)	<u>2.28</u> (0.46)	<u>2.27</u> (0.32)	<u>2.23</u> (0.39)	0.53	0.73**	1.34	0.47**	0.41	0.40
Behavioral Control	<u>2.62</u> (0.27)	<u>2.58</u> (0.25)	<u>2.17</u> (0.26)	<u>2.18</u> (0.28)	1.87	0.22	2.00	0.58**	6.57**	5.87**
Multidimensional Scale of Perceived Social Support (MSPSS)[®]										
Total score	47.35 (14.67)	44.52 (14.42)	25.26 (8.50)	25.5 (11.17)	1.24	0.41**	0.11	0.32*	7.40**	5.73**
Support from family	14.68 (5.44)	13.39 (6.06)	8.29 (3.01)	8.13 (3.87)	1.32	0.58**	0.39	0.11	5.88**	4.02**
Support from friends	18.68 (7.57)	18.58 (5.54)	8.81 (3.23)	9.27 (3.99)	0.60	0.22	0.13	0.30*	6.84**	7.52**
Support from other associates	14.42 (5.67)	12.55 (5.24)	8.13 (3.15)	8.13 (4.05)	1.71	0.44**	0.05	0.51**	5.57**	3.67**

[#]Scores in the 'unhealthy' range for FAD are underlined

[®]For both the FAD and MSPSS the higher the score, the worse the functioning

** $p < 0.01$, * $p < 0.05$

group and the patients' parents group all fell within the 'unhealthy' range (as defined by the original western version of the scale). In the control group and the controls' parents group only two of the dimensional mean scores were in the unhealthy range: Affective Involvement and Behavioral Control.

With the exception of the General Functioning and Problem Solving dimensions of the FAD, there were no statistically significant differences in reported family functioning between patients and their parents or between controls and their parents in the patient group. However, the subject-parent concordance was relatively weak ($ICC < 0.40$) for the Behavioral Control and Roles dimensions in the patient group and for the Communication and Problem Solving dimensions in the control group. Based on the results of the bootstrap procedure for comparing ICC values, the patient-parent concordance was significantly stronger than control-parent concordance for the Problem Solving, Communication and Affective Involvement dimensions (all $p < 0.001$) but significantly weaker for the Behavioral Control dimension ($p = 0.009$). Thus patients and their parents generally had similar perceptions about family functioning, with the notable exception that they

disagreed in their perceptions about the rules that govern behavior within the household.

As shown in Table 1, the overall perceived social support and the support from family, friends and associates was much greater in control subjects than in the patients and much greater in the parents of control subjects than in the parents of patients. This difference held true for all forms of social support, not only for social support within the family so having a child with OCD appears to affect the social support networks of their parents outside of the family as well as within the family. Interestingly, the level of all types of social support reported by co-resident parents was not significantly different from that reported by children (for both patients and controls); in several cases the levels of social support reported by the parent and child were highly concordant.

3.2 Relationship of perceived social support and reported family functioning

Table 2 shows the correlation between the perceived social support scores and the family functioning scores for patients and, separately, for controls. In all

Table 2. Correlation between MSPSS scores and FAD scores in 32 OCD patients and in 31 normal controls

	MSPSS scores of 32 OCD patients				MSPSS scores of 31 control subjects			
	MSPSS total score	Support from family	Support from friends	Support from other associates	MSPSS total score	Support from family	Support from friends	Support from other associates
Family Assessment Device (FAD)								
General Functioning	0.207	0.536**	0.233	0.353*	0.300	0.399*	0.247	0.166
Problem Solving	0.175	0.409*	0.132	0.268	0.284	0.305	0.275	0.181
Communication	0.306	0.571**	0.060	0.393*	0.062	0.163	0.016	0.018
Roles	0.004	0.203	0.201	0.076	0.281	0.298	0.280	0.184
Affective Responsiveness	0.294	0.587**	0.079	0.377*	0.345	0.328	0.255	0.332
Affective Involvement	0.213	0.481**	0.147	0.317	0.057	0.004	0.094	0.055
Behavioral Control	0.343	0.343	0.346	0.180	0.232	0.187	0.264	0.172
Age	0.132	0.148	0.126	0.023	0.225	0.178	0.291	0.134
Years of schooling	-0.262	-0.329	-0.147	-0.206	-0.363*	-0.404**	-0.367*	-0.206
Duration of OCD illness	0.081	0.007	0.169	0.002	—	—	—	—

MSPSS=Multidimensional Scale of Perceived Social Support; OCD=Obsessive-compulsive Disorder
 * $p < 0.05$, ** $p < 0.01$

cases the correlations were positive, indicating that worse reported family functioning was associated with lower perceived social support. Among both patients and controls, for most dimensions of the FAD (except Affective Involvement and Behavioral Control) the family functioning scores were more strongly correlated with perceived social support within the family than with perceived social support from friends or other associates, but none of these differences were statistically significant because of the small number of subjects considered. The positive correlations of family functioning scores and perceived social support within the family were stronger for patients than for controls (except for the Roles dimension), but none of the differences were statistically significant.

In both patients and controls perceived social support scores had a weak positive co-relationship with age ($r = 0.023 \sim 0.291$) and a relatively weak negative co-relationship with years of schooling ($r = -0.147 \sim -0.404$) suggesting that perceived social support decreases with age (among these young adults) but is stronger in individuals with higher levels of education. In the patient group the duration of illness was not significantly related to perceived social support.

Table 3 provides the same results for the parents of patients and controls. Similar to the patients and controls, all correlations between the FAD and MSPSS scores were positive, in most instances the co-relationship of family functioning with perceived social

support from family members was stronger than with perceived support from friends or associates, and for all FAD dimensions (except the Roles dimension) the correlation of the FAD scores and perceived support within the family was stronger for parents of patients than for parents of controls. Social support measures reported by the parents had a weak positive co-relationship with their age and a weak negative co-relationship with their years of education. In the patient group, parents' reported social support had a weak positive co-relationship with the duration of the patient's OCD illness.

Table 4 presents the results of the linear regression analysis used to identify factors that predict the total level of perceived social support combining patients with patients and their parents in one regression and controls and their parents in a second regression. For the 64 respondents from patients' families it shows that, after adjusting for respondent status (patient or parent), age, gender and educational level and for the duration of the patient's illness, the perceived overall social support is significantly positively related to the Behavior Control dimension of the FAD and significantly negatively related to the Roles dimension of the FAD. Among the 62 respondents from control subjects' families after controlling for respondent age, gender and educational level, the perceived overall social support was significantly positively related to the Roles dimension of the FAD.

Table 3. Correlation between MSPSS scores and FAD scores in parents of 32 OCD patients and 31 normal controls

	MSPSS scores of 32 parents of OCD patients				MSPSS scores of 31 parents of control subjects			
	MSPSS total score	Support from family	Support from friends	Support from other associates	MSPSS total score	Support from family	Support from friends	Support from other associates
Family Assessment Device (FAD)								
General Functioning	0.290	0.449**	0.027	0.321	0.105	0.202	0.070	0.007
Problem Solving	0.469**	0.473**	0.288	0.449**	0.383*	0.362*	0.338	0.351
Communication	0.431*	0.516**	0.226	0.361*	0.121	0.153	0.138	0.043
Roles	0.114	0.096	0.071	0.131	0.318	0.349	0.397*	0.143
Affective Responsiveness	0.473**	0.561**	0.276	0.370*	0.123	0.139	0.037	0.139
Affective Involvement	0.274	0.268	0.219	0.216	0.173	0.022	0.237	0.213
Behavioral Control	0.538**	0.369*	0.629**	0.385*	0.009	0.155	0.031	0.136
Age	0.165	0.181	0.063	0.183	0.085	0.123	0.206	0.084
Years of schooling	-0.112	-0.061	-0.112	-0.120	-0.107	-0.079	-0.145	-0.055
Duration of OCD illness	0.074	0.047	0.046	0.206	—	—	—	—

MSPSS=Multidimensional Scale of Perceived Social Support; OCD=Obsessive-compulsive Disorder

* $p < 0.05$, ** $p < 0.01$ **Table 4. Regression of total MSPSS social support score for members of patients' families and for members of control subjects families***

	OCD patients and their parent (n=64)				Controls and their parent (n=62)			
	Beta	Standardized Beta	p-value	95% CI of Beta	Beta	Standardized Beta	p-value	95% CI of Beta
Family Assessment Device (FAD)								
General Functioning	2.85	9.03	0.753	-20.97 ~ 15.27	3.76	6.56	0.569	-9.41 ~ 16.92
Problem Solving	12.21	7.30	0.101	-2.45 ~ 26.87	1.05	5.49	0.849	-9.96 ~ 12.07
Communication	11.63	9.98	0.250	-8.42 ~ 31.67	5.04	6.87	0.466	-18.83 ~ 8.74
Roles	-18.90	9.21	0.045	-37.39 ~ -0.41	20.72	7.88	0.011	4.90 ~ 36.54
Affective Responsiveness	1.90	8.18	0.817	-18.33 ~ 14.53	4.49	4.37	0.310	-4.30 ~ 13.27
Affective Involvement	4.11	4.91	0.406	-5.75 ~ 13.98	-6.93	5.21	0.189	-17.39 ~ 3.52
Behavioral Control	19.06	7.90	0.019	3.20 ~ 34.92	-11.16	6.44	0.089	-24.10 ~ 1.77
Male gender	0.09	3.83	0.980	-7.79 ~ 7.60	2.76	2.70	0.312	-2.66 ~ 8.17
Age	0.27	0.28	0.328	-0.83 ~ 0.28	0.10	0.11	0.339	-0.11 ~ 0.31
Years of schooling	-0.62	0.54	0.267	-1.71 ~ 0.48	0.36	0.54	0.513	-0.73 ~ 1.44
Duration of OCD illness	0.10	0.27	0.709	-0.44 ~ 0.64	—	—	—	—
Subject (vs parent)	6.24	8.26	0.454	-22.82 ~ 10.35	—	—	—	—

MSPSS=Multidimensional Scale of Perceived Social Support; OCD=Obsessive-compulsive Disorder

*For patient+parent regression $R^2=0.358$; for control+parent regression $R^2=0.258$

4. Discussion

4.1 Main findings

This study provides strong evidence that the family functioning in families with a patient that has OCD in China is substantially impaired and that the perceived social support of both patients and patients' parents in these families is significantly weaker than in matched subjects and their parents. Patients and their parents were quite concordant in their perceptions of family functioning (except for the Behavioral Control dimension) and for all seven dimensions of family functioning assessed, both patients and their parents scored in the 'unhealthy' range, which strongly suggests that these families are, indeed, quite dysfunctional. The major caveat for this result is that the cut-off scores for 'unhealthy' FAD results were determined using western samples so they may not be appropriate for mainland Chinese families. But the substantial differences between respondents from patients' families and those from control subjects' families confirms that these families are quite different from 'normal families'.

Studies with western samples^[21] of OCD patients and their parents also report impaired family functioning, but the impairment is only seen in some of the dimensions of the FAD and is reported by the patients but not by patients' parents. Thus the dysfunction appears to be more pervasive in Chinese families of OCD patients, possibly due to the more intensive involvement of family members in the health care and management of ill family members. There are no parallel western studies about social support in patients with OCD and their parents, but western studies do show that patients' social dysfunction is associated with the severity of OCD symptoms^[8] and that caregivers of patients with OCD has substantial stress and higher rates of psychological disorders that are associated with insufficient social support^[10]. Taken together, our findings strongly support recommendations for involving caregivers in the treatment of OCD patients^[22,23].

Our finding that control families also scored in the 'unhealthy' range for the Behavioral Control and Affective Involvement dimensions of the FAD suggests that either the cut-off scores for these dimensions are set too low for Chinese subjects or that the content of these dimensions are not appropriate for mainland China. It is certainly possible that the centrality of individualism and independence in western cultures versus the more inter-dependent collectivist approach of Asian cultures would have an effect on the level of affective involvement within families that is considered appropriate or 'normal'. And the content of the Behavioral Control dimension includes items about the management of 'emergencies' that may not be relevant to family functioning in China^[17]. Further qualitative research will be needed to adapt the FAD to the specific

circumstances of mainland Chinese families.

The differences in the concordance of patient-parent and control-parent assessments of family function are intriguing. The stronger patient-parent concordance of the Problem Solving, Communication and Affective Involvement dimensions of the FAD and the weaker concordance of the Behavioral Control dimensions suggest that the issues considered by these dimensions have different relevance in patients' families and control group families. The presence of OCD in the family and the need to manage the illness within the family context increases some type of family interactions and decreases other types of family interactions. Presumably, these changes in the patterns of interactions change the perceptions of family members making them more or less concordant in their evaluations of family functioning. Detailed assessments of these changed perceptions could provide clues about the mechanism via which OCD affects family functioning and, thus, help identify potential strategies for intervening.

For all respondents there was a clear relationship between reported measures of family functioning and perceived social support. In each of the four groups of subjects (patients, patients' parents, controls, controls' parents), for all seven dimensions of the FAD poor reported family functioning was associated with lower scores on all four measures of perceived social support. Given the relatively small sample size many of these correlation coefficients did not achieve statistical significance but the fact that all 112 coefficients assessed were positive is a strong indication that perceived social support in individuals in China is closely related to family functioning. This highlights the central role of families in the identity and social networks of individuals in China. It would be valuable to compare these Chinese results on the correlation of the FAD subscales and MSPSS dimensions with parallel results from other countries in families with and without a mentally ill member. This could have wide implications about the appropriate methods for addressing these problems.

The positive correlation of family functioning scores and perceived social support from family members were stronger for patients than for controls and stronger for patients' parents than for controls' parents (except for the Roles dimension), but, again, none of the differences were statistically significant, presumably because of the small sample size. This suggests that the presence of a mental illness in the family increases the importance of family functioning to family members' perceived support from the other family members. We expect that this is closely related to the perceived burden family members experience. Further elaboration of this relationship could help identify ways to reduce family members' perceived burden.

The unexpected finding from the regression analysis that the Roles dimension is negatively associated with overall perceived social support in the members of patients' families but positively associated with overall perceived support in the members of control subjects' families needs to be confirmed in larger studies. If confirmed, qualitative work would be needed to clarify the different 'meaning' of this dimension in patients' families and control subjects' families.

4.2 Limitations

Several factors need to be considered when interpreting these results. Only a very small proportion of OCD patients receive treatment so it is not clear how representative our sample is of all individuals with OCD in China. This is a cross-sectional study so it is impossible to be certain whether the poorer family functioning and social support found in the patient group were the cause of OCD or the effect of OCD (or both). We did not include a measure of the severity of OCD symptoms so we do not know whether or not the reported results for family functioning and social support would change during different phases of the illness (i.e., acute exacerbations and remission). The range of variables considered was quite limited; other factors that could affect the results such as the economic condition of the family, the personality of the respondent, the number of extended family members who live in the household and so forth have not been considered. The alpha values of the seven dimensions of the FAD and the three subscales of the MSPSS computed from the results of the 126 respondents in our study were acceptable, suggesting that the constructs assessed by these measures are internally consistent, but the psychometric properties of the mainland Chinese version of the scales have not yet been formally assessed. And there need to be large-scale community based studies using the FAD to establish Chinese cut-off scores for 'unhealthy' levels of family functioning. Finally, the sample size was relatively small so some of the negative results and the lack of findings in the regression analysis may have been due to Type II errors.

4.3 Implications

Despite the relatively small size of the study and some lingering questions about the validity of the scales employed in the study, we found substantial differences in self-reported family functioning and social support between patients and control subjects and between co-resident parents of patients and parents of controls. Having a family member with OCD has a deleterious effect on family functioning and on the perceived social support of both the patient and his or her co-resident parent. Clearly this illness, like several other psychiatric illnesses, is a family problem and not simply an individual problem. Thus interventions for OCD need

to integrate family-based psychosocial approaches (e.g., family therapy) with individual-based biological and psychological interventions. Further research is needed to better characterize the types of problems that are most common in families with a member that has OCD and to identify the types of family-based interventions that can best improve the functioning of these families and increase the perceived social support of the members of these families.

Acknowledgements

The authors express their thanks to the families that participated in the study.

Conflict of Interest

The authors report no conflict of interest.

Funding

This research was supported by a grant from the National Research Fund of the Ministry of Science and Technology (2009BAI77B05).

References

1. Lennertz L, Grabe HJ, Ruhrmann S, Rampacher F, Vogeley A, Schulze-Rauschenbach S, et al. Perceived parental rearing in subjects with obsessive-compulsive disorder and their siblings. *Acta Psychiatr Scand*, 2010,121(4):280-288.
2. American Psychiatric Association. *Diagnostic and statistical manual of mental disorders*. 4th ed. Washington DC: APA, 2000.
3. Olatunji BO, Tart CD, Ciesielski BG, McGrath PB, Smits JA. Specificity of disgust vulnerability in the distinction and treatment of OCD. *J Psychiatr Res*, 2011, 45(9):1236-1242.
4. Alonso P, Menchón JM, Mataix-Cols D, Pifarré J, Urretavizcaya M, Crespo JM, et al. Perceived parental rearing style in obsessive-compulsive disorder: relation to symptom dimensions. *Psychiatry Res*, 2004,127(3):267-278.
5. Yoshida T, Taga C, Matsumoto Y, Fukui K. Paternal overprotection in obsessive-compulsive disorder and depression with obsessive traits. *Psychiatry Clin Neurosci*, 2005, 59(5):533-538.
6. Wilcox HC, Grados M, Samuels J, Riddle MA, Bienvenu OJ 3rd, Pinto A, et al. The association between parental bonding and obsessive compulsive disorder in offspring at high familial risk. *J Affect Disord*, 2008,111(1):31-39.
7. Canavera KE, Ollendick TH, May JT, Pincus DB. Clinical correlates of comorbid obsessive-compulsive disorder and depression in youth. *Child Psychiatry Hum Dev*, 2010,41(6):583-594.
8. Piacentini J, Bergman RL, Keller M, McCracken J. Functional impairment in children and adolescents with obsessive-compulsive disorder. *J Child Adolesc Psychopharmacol*, 2003,13(Suppl 1): 61-69.
9. Piacentini J, Peris TS, Bergman RL, Chang S, Jaffer M. Functional impairment in childhood OCD: Development and psychometrics properties of the child obsessive-compulsive impact scale-revised. *J Clin Child Adolesc Psychol*, 2007, 36(4): 645-653.
10. Ramos-Cerqueira AT, Torres AR, Torresan RC, Negreiros AP, Vitorino CN. Emotional burden in caregivers of patients with obsessive-compulsive disorder. *Depress Anxiety*, 2008,25(12):1020-1027.

11. Storch EA, Lehmkuhl H, Pence JS, Geffken GR, Ricketts E, Storch JF, et al. Parental experiences of having a child with obsessive-compulsive disorder: associations with clinical characteristics and caregiver adjustment. *J Child Family Studies*, 2009, 18(3):249-258.
12. Zhao GG, Zeng SX, Guo J. A comparative study of family environment and rearing styles of parents with obsession. *Health Psychology Journal*, 2003,11(3):186-187. (in Chinese)
13. Epstein NB, Baldwin LM, Bishop DS. The McMaster family assessment device. *J Marital Fam Ther*, 1983,9(2):171-180.
14. Zimet GD, Powell SS, Farley GK, Werkman S, Berkoff KA. Psychometric characteristics of the Multidimensional Scale of Perceived Social Support. *J Personal Assess*, 1990, 55(3-4): 610-617.
15. Miller IW, Epstein NB, Bishop DS, Keitner GI. The McMaster Family Assessment Device: reliability and validity. *J Marital Fam Ther*, 1994,11(4):345-356.
16. Shek DT. The General Functioning Scale of the Family Assessment Device: does it work with Chinese adolescents? *J Clin Psychol*, 2001,57(12):1503-1516.
17. Shek DT. Assessment of family functioning in Chinese adolescents: the Chinese version of the Family Assessment Device. *Research Soc Work Prac*, 2002,12(4):502-524.
18. Liu PY, He MT. Family Assessment Device, FAD. *Chinese Mental Health Journal*, 1999, (Suppl): 149-151. (in Chinese)
19. Chou KL. Assessing Chinese adolescents' social support: the multidimensional scale of perceived social support. *Personality and Individual Differences*, 2000, 28(2):299-307.
20. Jiang QJ. The Multidimensional Scale of Perceived Social Support. *Chinese Mental Health Journal*, 1999, (Suppl): 131-133. (in Chinese)
21. Derisley J, Libby S, Clark S, Reynolds S. Mental health, coping and family-functioning in parents of young people with obsessive-compulsive disorder and with anxiety disorders. *Br J Clin Psychol*, 2005, 44(3): 439-444.
22. Piacentini J, Bergman RL, Jacobs C, McCracken J, Kretschml J. Open trial of cognitive behavior therapy for childhood obsessive-compulsive disorder. *J Anxiety Disord*, 2002, 16(2): 207-219.
23. Ginsburg GS, Siqueland L, Masia-Warner C, Hedtke KA. Anxiety disorders in children: family matters. *Cognitive and Behavioral Practice*, 2004, 11(1): 28-43.

(received: 2011-07-11, accepted: 2011-11-07)

• 论著 •

强迫症患者与正常对照的家庭功能和社会支持的对照研究

王继堃 赵旭东

项目基金：国家科技支撑计划课题（2009BAI77B05）

作者单位：同济大学医学院，东方医院心身医学中心 200092。

通信作者：王继堃，电子信箱 liwangjk@gmail.com

摘要

背景 在强迫症的发生与病情演变中家庭功能起着重要的作用，因而理解强迫症患者的家庭问题类型有助于制定针对性的家庭干预。

目的 比较强迫症患者及其同住的父母与正常对照及其同住父母的家庭功能和社会支持。

方法 在同济大学东方医院门诊的32例符合DSM-IV强迫症诊断标准的患者和其同住的父母中的一位以及通过附近居委会招募的31位社区对照者（年龄、受教育程度相匹配）及其同住的父母之一参加了本研究。所有受试者独立填写2个中文版自评量表，即用于评估家庭功能7个维度的McMaster家庭功能评定量表（Family Assessment Device, FAD）以及用于评估主观感受到的来自于家庭成员、朋友以及其他社会支持的领悟社会支持量表（Multidimensional Scale of Perceived Social Support, MSPSS）。

结果 根据原版量表划分正常与否的分界值，强迫症患者及其父母的FAD所有维度的得分均处于异常范围。除了FAD的情感卷入这一维度，强迫症患者及其父母报告的家庭功能和社会支持都分别低于社区对照及其父母报告的程度。患者与父母在问题解决、沟通和情感介入等3个FAD因子的得分一致性高于社区对照与父母的一致性（ p 均小于0.001），但行为控制的得分一致性低于对照（ $p=0.009$ ）。除个别相关系数未达统计学意义外，所有研究对象的MSPSS的4个得分均与FAD的7个得分呈正相关。

结论 在中国，强迫症类似于其他精神障碍，也是一种广泛影响家庭功能的疾病。治疗强迫症时，需要整合基于家庭的心理社会干预（如家庭治疗）以及基于个体的生物学干预和心理干预。本研究结果发现所有研究对象主观感受到的社会支持与家庭功能密切相关，这凸显了在中国，家庭功能在个体的身份认同与社交网络中的中心地位作用。

关键词 强迫症 家庭功能 社会支持