

## Social phobia in children – risk and resilience factors

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**Introduction:** Anxiety disorders account for one third of psychiatric complaints that young people present to their general practitioners with. Social phobia (SP) is one of the most prevalent of these disorders, in children and adolescents. **Methods:** Sixty nine patients with carefully defined SP and a control group of 129 typically developing (TD) children were recruited through the Academic Child Psychiatry Unit, Royal Children's Hospital. All completed the McMasters Family Assessment Device, Hopkins Symptom Checklist, and the Spanier Dyadic Adjustment Scale. **Results:** There were no clinically meaningful differences in family functioning between the SP group and TD group. Parents of children with social phobia reported higher rates of anxious ( $\eta^2 = 0.10$ ), obsessive compulsive ( $\eta^2 = 0.12$ ) and depressive ( $\eta^2 = 0.13$ ) symptoms, compared to parents of the control group. Furthermore, the relationships of parents with children who have SP appeared to be unhappier ( $\eta^2 = 0.15$ ) and they reported working together less ( $\eta^2 = 0.14$ ) than their counterparts. **Discussion:** Although family functioning per se is not associated with an increased risk of SP in children, the presence of dysfunction tends to lead to protracted SP. Moreover, the stress of having a family member with a mental illness can impact on the parental relationship, causing problems. This may or may not be related to parents of young people with SP displaying symptoms of anxiety, obsessive-compulsiveness and depression. This supports the need to consider both the parents and children when constructing a management plan, which can be initiated and executed by general practitioners.

### Introduction

Mental health problems are prevalent amongst young people, with almost one in four experiencing some impairing difficulties in their adolescence. [1] While the first port of call for Australian children tends to be their general practitioners (GP), it is estimated that out of the 25% who seek help, there are at least twice as many who actually have mental health issues, since most young people present with somatic complaints. [1,2] Anxiety disorders are one of the commonest psychiatric problems and over a third of young people who present to their GPs have symptoms of anxiety and depression. [1-3] Social phobia (SP) is a social situation-dependent condition, characterised by persistent and exaggerated fear of embarrassment or humiliation in front of others. [2] It is among the most prevalent of anxiety disorders in children and adolescents, and can be significantly distressing and debilitating to its sufferers, causing social and academic impairment resulting in isolation, school avoidance and refusal. [2,3] Some studies have even shown a more serious side to this condition: anxiety disorders, including SP, are associated with increased risk of suicide attempts and deliberate self-harm. [4,5]

Existing literature found that family functioning is not associated with SP, but the persistence of SP in young people is greater when family functioning is dysfunctional. [6-8] Furthermore, parents of children with SP are likely to suffer from SP themselves, [6-8] there



is an emerging association between SP and Bipolar Disorder (BPAD), while comorbid alcohol abuse in patients with BPAD and co-morbid SP seems to be recognised. [9-11] Interestingly, to date, there are no replicated findings about the impact of parental relationship factors on SP specifically.

### Aim

The aim of this study is to investigate the potential risk and resilience factors in children with SP in the domains of family functioning, parental psychopathology and parental relationship. The McMasters Family Assessment Device (FAD), Hopkins Symptom Checklist (HSCL) and Spanier Dyadic Adjustment Scale (DAS) were used to explore these three respective domains.

### Hypotheses

The hypotheses that the research addresses are 1) that family functioning between the SP and TD groups would not differ; 2) that parents of children with SP would show features of SP and other anxiety disorders and 3) that parental relationship factors would not have a clear association with SP compared to TD young people.

### Methods

This research represents a cross-sectional study and was conducted at the Academic Child Psychiatry Unit (ACPU), Royal Children's Hospital (RCH) in Melbourne. The ACPU is a clinical research unit that provides comprehensive, standardised assessments and treatment for children and adolescents with internalising and externalising disorders. Prior to the assessments, informed consent was obtained from the parents and children, and a consent form was signed. The data used in the analysis were obtained from standardised questionnaires and structured clinical interviews completed by the parents and young people.

An ethics approval was not required for this paper as both the data analysis and the questionnaires used in this research did not involve the use of identifying information. In addition, the questionnaires utilised for the data are part of the full standard assessment that all patients referred to the ACPU are required to undertake as part of their management. Furthermore, this research project is not part of a Doctoral or Master's degree.

### Family Functioning

In order to assess family functioning, the McMasters Family Assessment Device (FAD) was used. Devised in the 1980s by Epstein and colleagues, the FAD described seven aspects of family functioning through a 52-item questionnaire: problem solving, communication, roles, affective responsiveness, affective involvement, behaviour control and general functioning. [12] The selection of responses for each item ranged from 1 to 4, where 1 = strongly agree, 2 = agree, 3 = disagree, 4 = strongly disagree. [13] The positively oriented items were then recoded and the total score could range from 12 to 48, where higher scores represent better functioning. [13]

### Parental Psychopathology

To measure parental psychopathology, the 58-item Hopkins Symptom Checklist (HSCL), a self-report symptom inventory, was utilised. It was scored on parental distress from 1 to 4, where 1 = not at all and 4 = extremely, and it was reported from the five symptom dimensions of somatization, obsessive-compulsive, interpersonal sensitivity, depression and anxiety. [14] The outcome of the survey was in the form of raw data, i.e. mean factor scores and standard deviations, calculated using average-unit weight methods, which made it better geared towards use in clinical research. [14]

### Parental Relationship

The Spanier Dyadic Adjustment Scale (DAS) is a 32-item, widely used measure of relationship quality between couples. [15] For the purpose of this study, the abbreviated seven-item version of this instrument, which has shown good internal consistency and is deemed psychometrically sound, was used. [16] The DAS-7 consists of six-point Likert-type scales with end-points of "always agree" to "always disagree" or "all the time" to "never". [16] The last item on the questionnaire rates relationship satisfaction on a seven-point scale, with end-points of "extremely unhappy" to "perfectly happy". [16]

### Statistical Analysis

Age, social adversity status (SAS) and full-scale IQ (FSIQ) were analysed using univariate analysis of variance, while gender was controlled using the chi square test. The HSCL, FAD and DAS variables were analysed using univariate analysis of covariance, controlling for SAS and FSIQ. Partial eta squared was used to ascertain effect sizes for variables that differed between the groups. The value at which a sample is considered to be clinically significant or large, was set at  $\eta^2 \geq 0.10$ .

### Results

The 69 children diagnosed with SP and 129 TD children were identified using the Anxiety Disorders Interview Schedule for Children (A-DISC), which is a semi-structured interview conducted by clinically-trained interviewers. [17] The A-DISC comes in a parent (A-DISC-P) and child (A-DISC-C) form and is designed specifically to diagnose anxiety and other related disorders in individuals from 6-16 years of age. [17] Based on the parent and child account of the most distressing or interfering symptoms, the children are given a principle diagnosis and any other diagnoses fitting the criteria, as determined by the A-DISC. [17] Patients with Full Scale IQ less than 70, and children living away from their parents were excluded. Patients with any coexisting DSM-IV-TR Axis I diagnosis were also excluded.

The SP and TD groups did not differ in their age or gender: mean age of the children with SP was 11.01 while the mean age of the TDP was 10.50 years. Out of the experiment group, 40 of them were males and 29 females. Similarly there were more boys in the control group at 70, compared to girls, of which there were 53.

### Family functioning

There were no clinically meaningful family functioning differences between the families of children with SP and the TD young people. This was based on scores of  $\eta^2 = 0.06$  for general functioning,  $\eta^2 = 0.02$  for problem solving,  $\eta^2 = 0.03$  for communication,  $\eta^2 = 0.03$  for roles and  $\eta^2 = 0.03$  for behaviour control, all of which are not clinically significant.

This suggests that families from both groups were able to effectively solve problems together and communicate, from a clinical standpoint. Furthermore, the results implied that the established roles and execution of those roles within families of either group were not dissimilar. Also, the way in which the expression and maintenance of behavioural regulation is achieved in the two groups was not different from a clinical perspective.

### Parental psychopathology

The data revealed some interesting results in this regard, supporting previous literature that traits of anxiety are significantly present in parents of socially phobic children ( $F = 16.62$ ,  $p < 0.0005$ ,  $\eta^2 = 0.10$ ). Furthermore, it was found that parents of the control group displayed symptoms of an obsessive-compulsive ( $F = 20.08$ ,  $p < 0.0005$ ,  $\eta^2 = 0.12$ ) and depressive ( $F = 22.01$ ,  $p < 0.0005$ ,  $\eta^2 = 0.13$ ) nature. In addition, the effect size of the total HSCL score between the groups was  $\eta^2 = 0.14$ .

This demonstrated that parents with children with SP also tended to have manifestations of anxiety, e.g. restlessness, nervousness, tension or even somatic signs like trembling. Moreover, these individuals tended to experience the presence of unwanted thoughts, impulses or actions more often than their counterparts. Interestingly, parents of SP children also appeared to suffer from more dysphoria, anhedonia, avolition and hopelessness than parents of the control group. Overall, the data showed that parents of socially phobic children seemed to have more symptomology of mental health problems than parents with TD children.

### Parental relationship

Contrary to the hypothesis on parental relationship, the effect size of the total DAS scores of the two groups proved to be  $\eta^2 = 0.11$ . Additionally, there were clinically significant problems with the happiness in the relationship ( $F = 20.41$ ,  $p < 0.0005$ ,  $\eta^2 = 0.14$ ) and ability of spouses with SP children to work together ( $F = 22.62$ ,  $p < 0.0005$ ,  $\eta^2 = 0.15$ ) compared to the control group.

This non-hypothesised result suggested that in families with children with SP, the relationships between the parents tended to be more strained, and they did not often collaborate on projects together.

### Discussion

In general, the results of the data analysis were largely similar to the hypotheses put forth at the beginning of this paper. As supported by Knappe and colleagues in both their 2009 publications, family functioning was not associated with a risk of having offspring with SP. Earlier studies by Lieb *et al.* nearly a decade before also agreed that there was no connection between a child with SP and family functioning.

They did, however, discover that other parental factors, which were outside the scope of the measures used in this project, were associated with greater persistence of SP in children with the diagnosis. For instance, in cases where parents also had SP, negative parental rearing styles like parental overprotection coexisted (DSM-IV threshold SP: Beta = 0.23,  $T = 2.06$ ,  $p = 0.043$ ; at least sub threshold SP: Beta = 0.22,  $T = 2.07$ ,  $p = 0.042$ ). [8] In situations where there was an absence of disorders in parents, parental rejection (Beta = -0.42,  $T = -2.18$ ,  $p = 0.032$ ) also caused the persistence of SP in their offspring. [8] Furthermore, it was noted that, when families were dysfunctional in their functioning, SP tended to be more persistent in the children. [8]

According to the data produced in this study, parents of children with SP tend to have traits of anxiety and obsessive compulsive disorders themselves. Interestingly, the results also showed that a clinically significant portion of these also suffered from depressive symptoms.

It is well known in the literature that parents with SP themselves are at greater risk of having offspring with SP. [6-8] One study supported the findings of this paper, showing the risk of children developing SP is greater when their parents have SP (OR = 3.3, 95% CI: 1.4-8.0), other anxiety disorders (OR = 2.9, 95% CI: 1.4-6.1), depression (OR = 2.6, 95%

CI: 1.2-5.4), and even alcohol use disorders (OR =2.8, 95% CI: 1.3-6.1). [7]

This was not the first time alcohol abuse has been associated with SP. Studies by Perugi *et al.* found that patients with SP and co-morbid Bipolar Affective Disorder Type II (BPAD II) tended to develop alcohol abuse problems. [10] In that situation, however, they argued that the co-existence of BPAD and SP led to protracted anxiety in social situations, which may have explained their increased susceptibility to using alcohol as a social lubricant. [10-11]

Future research should seek to uncover whether the symptoms experienced by the parents are a direct result of raising children with SP, or whether their own psychopathology has contributed to their children's condition. Longitudinal study designs are needed.

It was hypothesised that the parental dyad would not be affected as a result of having a child with SP, due to the fact that SP, like many anxiety disorders, are internalising conditions. However, in this study these individuals ranked lower in relationship satisfaction and working on joint projects together. One explanatory theory could be that behavioural difficulties in children with SP, such as school refusal and poor academic performance, indirectly cause discord in the relationship of their parents. Conversely, a troubled parental relationship could potentially exacerbate or even contribute to symptoms of SP that their child.

Although no prior studies have been conducted exploring the use of the DAS as a parental relationship measure, the findings are not unreasonable. A study in 1997 by Friedman *et al.*, which examined adaptive functioning in the families of patients with psychiatric disorders, agreed with this. Their research found that, regardless of diagnosis, having a family member in an acute phase of a psychiatric illness was a significant stressor and put them at risk of poor family functioning. [18]

It may be reasonable to conclude then, that having an offspring with SP puts stress on the family as a whole, and can therefore lead to difficulties within the parental relationship. For instance, the demands of caring for a child with SP in addition to other responsibilities may result in less time spent together as a couple, and hence less time spent working together on projects. Given enough time, this may lead to relationship dissatisfaction. Ideally, future research will recreate or produce more modern data looking into this area, allowing for better interpretation.

#### Relevance to general practice

As alluded to earlier in this paper, there is a darker side to suffering from SP: namely the risk of suicide and self-harm. Even if one disregards this aspect of the condition, it is undeniable that an individual's development will be impaired if they are unable to fully participate with their peers socially and academically when growing up. In addition, this research supports the fact that the parents and family unit should not be forgotten when it comes to managing SP in young people. [1]

One of the more effective treatments for SP is Cognitive Behaviour Therapy (CBT). [3,19] In addition to treating SP in children, CBT is also useful in managing adult depression and anxiety disorders. [19] Also within the scope of CBT is dealing with issues related to marital distress. [19] CBT is a type of talking-therapy where a person's emotions, thoughts and behaviours as linked to particular circumstances e.g. social situations, and negative thought patterns are challenged. [19]

While traditionally seen as a time consuming form of psychotherapy in

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the GP context, a recent article by Harden encourages GPs to reconsider. [19] She argues that CBT is among the least consuming of psychological therapies, due to its highly structured nature. [19] Furthermore, where CBT was once the domain of psychologists and psychiatrists, Harden outlines several resources for GPs to undergo training in basic CBT techniques, which will enable them to utilise this skill. [19]

Post-training, GPs should be well-equipped to handle the milder forms of SP and family dynamics, and still retain their ability to refer complex cases to specialists. [19] Moreover, they can serve as a bridge for more complex patients who are waiting for specialist appointments. [19] These GPs can gain satisfaction from enabling their patients to develop problem solving techniques, take more responsibility and make better choices. [19] As an added bonus, GPs trained in psychotherapy now receive greater rebates from the government as an incentive to participate in mental health care. [19]

Exposure therapy is another form psychotherapy which effectively manages SP, which GPs are able to execute. [2,20] This behavioural intervention, which incorporates activity scheduling, graded task assignment, distraction and relaxation, can be easily learned by both GPs and patients to a level of competence comparable to treatments conducted by mental health specialists. [2]

Another way to manage SP is using drug therapy, e.g. sertraline with or without psychotherapy. [20] Blomhoff and colleagues found that sertraline was one of more 'GP-friendly' psychiatric drugs, owing to its effectiveness and tolerability. They recommended a blend of sertraline and exposure therapy to manage SP in general practice, the latter more so in patients unsuitable for drug treatment or who do not respond to sertraline alone. [20]

#### Conclusion

In summary, although family functioning per se is not associated with an increased risk of SP in children, the presence of dysfunction can lead to protracted SP. Moreover, the stress of having a family member with a mental illness can impact on the parental relationship, causing problems. This may or may not be related to the parents of young people with SP displaying greater symptoms of anxiety, obsessive-compulsiveness and depression. These interplaying factors make it necessary to consider both the parents and child, when constructing a management plan.

The field of primary care is well-equipped to aid with the management of patients with SP and their families through the use of psychotherapies e.g. CBT and exposure therapy, as well as medications e.g. sertraline. This will be extremely beneficial due to the debilitating and sometimes serious nature of this problem.

Future research should be geared towards producing more modern data and exploring the areas of parental relationship and parental psychopathology in the context of SP, in more detail.

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#### Conflict of interest

None declared.

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