

A controlled evaluation of the 'FRIENDS for Life' emotional resiliency programme on overall anxiety levels, anxiety subtype levels and school adjustment

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Background: Anxiety constitutes the most common form of psychopathology in childhood and adolescence. **Methods:** This randomised controlled study evaluated the 'FRIENDS for Life' school-based Cognitive Behavioural Therapy programme on overall anxiety, anxiety subtypes and school adjustment. Sixty-two students aged 12–13 completed measures of anxiety and school adjustment before, immediately after and 4 months after completing the programme. Parents and teachers also rated the students on overall anxiety levels and school adjustment respectively. **Results:** The intervention group's 'overall anxiety' and specifically 'separation anxiety' reduced significantly during the programme and continued to decrease at the 4-month follow-up. **Conclusions:** A significant negative correlation was found between anxiety and school adjustment. The professional implications of these findings are discussed.

Key Practitioner Message

- Anxiety constitutes the most common form of psychopathology in childhood and adolescence. However, research shows that this internalising condition is often not recognised and is underreported by parents and teachers
- This study demonstrated that the 'FRIENDS for Life' cognitive behavioural therapy programme, when delivered in schools by a trained facilitator, can significantly reduce overall anxiety and, in particular, can effectively target separation anxiety symptoms
- Parents of students rated their children as significantly less anxious following completion of the 'FRIENDS for Life' programme. There was an increase in parent–child agreement of the child's anxiety levels following the intervention
- A statistically significant negative relationship between student anxiety and school adjustment was found ($r = -.464, p < .01$), indicating an association between childhood anxiety and school adjustment difficulties. Most notably, school adjustment had the strongest negative correlation with Generalised Anxiety Disorder (GAD) and Social Phobia

Keywords: Anxiety; separation anxiety; school; cognitive therapy; school adjustment

Introduction

Childhood anxiety

Research has found that anxiety disorders are among the most common psychiatric disorders in school-aged children and adolescents, with international prevalence rates averaging between 4% and 25% (Neil & Christensen, 2009). Prevalence rates in Ireland indicate that 18.7% of children suffer from some form of mental health issue or psychological disorder of some kind, including anxiety, severe enough to cause impairment (Barnardos Tomorrow's Child Report's, 2008). Anxiety can develop into a disorder when (i) it is extreme and uncontrollable, (ii) it requires no specific threat and (iii) it is associated with a varied and intense range of physical and affective symptoms as well as changes in behaviour and cognition (American Psychiatric Association, 2000). The symptoms and behaviours specific to childhood anxiety involve separation anxiety, phobias, fearfulness,

extreme self-consciousness, intense worrying and irrational thoughts about past behaviours (King & Ollendick, 1989). Adolescents experience similar anxiety symptoms, although anxiety about peer and family relationships, financial concerns and educational performance tend to dominate (King & Ollendick, 1989).

As regards the negative impact of this mental health issue, anxiety symptoms and disorders in childhood appear to signal significant risk for other disorders, particularly other anxiety disorders and depression (Cole, Lachlan, Martin, Truglio, & Serocynski, 1998) and without effective treatment, childhood anxiety can have a chronic and unremitting course (Keller, Lavori, Wunder, Beardslee, & Schwartz, 1992). With regard to the specific impact of anxiety on academic development, anxiety symptoms and disorders significantly interfere with children's interpersonal and academic functioning (McGee & Stanton, 1990). Ma (1999) found that extreme anxious arousal reduces concentration on academic tasks.

According to King and Bernstein (2001), there is a well established connection between school refusal and anxiety symptoms. Schools have an important role in identifying and supporting young people experiencing psychological distress, yet there are indications that internalising disorders are often overlooked by school staff (Abidin & Robinson, 2002). Children are most likely to be referred for specialist, professional support by their parents. However, research has consistently indicated inconsistent agreement between parent and child reports of anxiety, with parents underidentifying anxiety in their children (Kendall & Flannery-Schroeder, 1998). Parent-child agreement is often found to be larger when the behaviour is observable (March, Parker, Sullivan, & Stallings, 1997) and to be smaller for behaviour that is internalised such as anxiety (Rey, Schrader, & Morris-Yates, 1992).

Psychological treatment for childhood anxiety

When childhood anxiety is identified, it is essential to intervene effectively. Controlled clinical trials by Kendall and Southam-Gerow (1996) and Barrett, Dadds, and Rapee (1996) have concluded that childhood anxiety can be effectively treated with individually administered cognitive behavioural therapy (CBT) interventions. Also, group administered CBT programmes have been shown to be equally effective in preventing and treating childhood anxiety (Smith et al., 2007). Group CBT programmes have several benefits over the use of CBT in an individual format. Group CBT programmes provide opportunities for children and adolescents to interact together, model positive behaviours, provide peer and group feedback and to provide opportunities to 'normalise' the anxiety experienced. Despite these advantages, most CBT programmes to date have tended to adopt an indicated/targeted approach implemented within a 1:1 format (Dadds, Holland, Barrett, Laurens, & Spence, 1999). Unfortunately, there are few evidence-based universal preventive programmes for anxiety within a group format for children and adolescents (Dadds et al., 1999). However, the 'FRIENDS for Life' emotional resiliency programme is one exception in that it can be implemented in both a universal preventive format as well as an indicated format in educational and clinical settings.

'FRIENDS for Life'

The 'FRIENDS for Life' emotional resiliency programme is a group CBT intervention that was developed by Professor Paula Barrett at the Pathways Institute in Australia. The word 'FRIENDS for Life' is an acronym that helps children and adolescents to remember the steps to follow when feeling anxious; F – Feeling Worried?, R – Relax and feel good, I – I can do it!, E – Explore solutions and coping step plans, N – Now reward yourself, D – Don't forget to practice and S – Stay cool! It is a structured, 10-session CBT programme. The programme has three main components based on CBT principles: (a) Learning/Behaviour, (b) Cognitive and (c) Physiological. The Learning/Behaviour component involves helping children and adolescents to develop six-step problem-solving plans, use coping step plans and identify role models and support networks. The Cognitive component involves helping children and adolescents to use positive self-talk (green thoughts), challenge negative self-talk (red thoughts), evaluate themselves realistically and

reward themselves. The Physiological component involves teaching children and adolescents to be aware of their body clues, to use relaxation techniques and to self-regulate.

Numerous studies have demonstrated the effectiveness of 'FRIENDS for Life' in reducing anxiety, both immediately after programme implementation and at longer term follow-up and when facilitated by trained teachers, nurses and mental health professionals (Barrett, Farrell, Ollendick, & Dadds, 2006; Barrett, Sonderegger, & Xenos, 2003; Barrett & Turner, 2001; Dadds, Spence, Holland, Barrett, & Laurens, 1997; Dadds et al., 1999; Lowry-Webster, Barrett, & Lock, 2003). The results from these studies have led the World Health Organisation to cite 'FRIENDS for Life' as the only evidence-based programme effective through universal, indicated and targeted formats in reducing anxiety in children and adolescents (WHO, 2004).

School adjustment and anxiety

School adjustment has been defined as a multifaceted task, involving adaptation to the academic, social-emotional and behavioural demands of the educational setting (Perry & Weinstein, 1998). Anxiety literature has demonstrated the negative relationship between anxiety and school adjustment (Boman & Yates, 2001; Strauss, Frame, & Forehand, 1987). Wood (2006) hypothesised that given the negative role that anxiety plays in academic performance and social adjustment, a cognitive behavioural intervention to reduce anxiety might indirectly improve these variables. Forty students with high anxiety (6–13 years of age) participated in the programme and results indicated that decreased anxiety levels were predictive of increased academic and social functioning over the course of a cognitive behavioural therapy intervention.

Aims of the study

The first aim of this study was to investigate the impact of the 'FRIENDS for Life' intervention, delivered in a school setting, on both 'overall anxiety' and also the spectrum of anxiety subtypes as detailed in the DSM-IV-TR. The second aim of the research was to examine the dyadic agreement between child and parent ratings of the child's anxiety at different time points during the school-based intervention. The third aim was to examine the relationship between anxiety and school adjustment in more depth. Finally, due to the fact that anxiety plays a significant negative role in school performance, social adjustment and ultimately school adjustment, this study aimed to explore whether the 'FRIENDS for Life' programme may indirectly improve these outcomes through reducing anxiety. This study employed a wait-list control design as evaluations of the 'FRIENDS for Life' programme have been previously confounded by single cohort designs (Stallard, Simpson, Anderson, Hibbert, & Osborn, 2007).

Method

Participants

A power calculation was used to determine the sample size. The effect sizes provided by previous research into the 'FRIENDS for Life' programme were averaged. Power calculations based on a Cohen's *d* effect size of 0.72 (Cohen, 1988) indicated that with

an alpha level of 0.05 a sample size of 50–64 would result in a power level of 80%.

First Year students (aged 12/13 years) in three secondary schools in a socially disadvantaged catchment area in a major city in Ireland were invited to participate in the study. These students had just made the educational transition from Primary School to Secondary School. First Year students and their parents were given information sheets detailing the research study, the 'FRIENDS for Life' programme and the evidenced benefits of completing the programme. Of the families initially contacted, 86% of participants consented to take part. The 62 students were randomly allocated to an intervention or wait-list control group within each respective school. Information on the participant's characteristics is outlined in Tables 1 and 2.

Procedures

Anxiety was measured using the Spence Children's Anxiety Scale (SCAS; Spence, 1997) & Spence Children's Anxiety Scale for Parents (SCAS-P; Spence, 1997) – both self-report measures. Children rated themselves and parents rated their children on an overall measure of anxiety as well as six individual subtype scores which correspond to DSM-IV-TR anxiety disorder categories: Generalised Anxiety, Social Phobia, Panic/Agoraphobia, Separation Anxiety, Obsessive Compulsive and Physical Injury Fears. The scale has demonstrated high internal consistency, high concurrent validity and adequate test-retest reliability (Spence, Barrett, & Turner, 2003).

School Adjustment was measured using the child measure – the Child Rating Scale (CRS; Perkins & Hightower, 2002) and the related teacher measure – the Teacher-Child Rating Scale 2.1 (T-CRS 2.1; Perkins & Hightower, 2002). The CRS assessed the following school adjustment domains: Rule Compliance/Acting Out, Anxiety/Withdrawal, Peer Social Skills and School Interest. The CRS's alpha coefficients of internal consistency range from 0.42 to 0.83. The Teacher-Child Rating Scale assessed the following school adjustment domains: Task Orientation, Behaviour Control, Assertiveness and Peer Social Skills. The T-CRS's alpha coefficients of internal consistency range from 0.87 to 0.98. Good internal reliability (reliability coefficients of .89 to .94) was also found. Validity was also assessed and was found to be acceptable (Perkins & Hightower, 2002).

The first author completed a 1-day training session to be awarded 'group facilitator' status with the 'FRIENDS for Life' programme. The intervention programme, 'FRIENDS for Life', is a manualised cognitive behavioural therapy programme. The

programme consists of 10 weekly 60 min sessions involving large and small group work, workbook exercises, role plays, games, activities and quizzes. In addition to reinforce and generalise the skills introduced in the sessions, homework tasks are assigned at the end of each session.

The Spence Children's Anxiety Scale (Parent Version) and The Teacher-Child Rating Scales were completed by Parents and Tutors respectively. All consenting participants were administered the Spence Children's Anxiety Scale and the Child Rating Scale in a classroom during regular school hours. Each question was read by the first author, item-by-item, aloud to the class. The 'FRIENDS for Life' programme comprised of ten one hour sessions for all three intervention groups within the three schools. The intervention was solely facilitated by the first author during Social Personal and Health Education (SPHE) classes within the three respective schools. The control groups received no active intervention during this time. All measures were completed again by the Intervention and Control participants and the teachers and parents following completion of the 'FRIENDS for Life' programme. Further follow-up assessment was conducted 4 months after completing the programme. Following this, the control group received the 10 week 'FRIENDS for Life' programme.

A protocol integrity check was carried out during this study to ensure fidelity of implementation. Random 'FRIENDS for Life' sessions were videotaped. On viewing the sessions, a checklist indicating compliance with the manual content for these sessions was completed by a second trained researcher. The protocol integrity checks showed concordance between session and manual content (89%). This is similar to previous ratings which revealed concordance between session and manual content of 88.8%–95.6% (Barrett, Lock, & Farrell, 2005), 93%–95% (Barrett, Sonderegger, & Sonderegger, 2001).

Analysis

A pre/post/follow-up control group design was used. Parents, teachers and students completed all self-report measures at preintervention and postintervention. Students and teachers completed the self-report measure for the final time at the 4-month follow-up. A mixed design ANOVA was employed as two independent groups (intervention and control group) were subjected to repeated measures across three time points (pre, post and 4-month follow-up). Positive and negative relationships were analysed using the Pearson Correlation Coefficient. All assumptions were met for the statistical tests used.

Results

Anxiety

To explore whether the 'FRIENDS for Life' emotional resiliency programme is effective in reducing overall anxiety scores at pre, post and 4-month follow-up when employing a wait-list control group, the student Spence Children's Anxiety Scale (SCAS) was analysed using a Mixed Design ANOVA. There was no significant main effect of group. A significant main effect of time was found ($F(2,120) = 15.94, p < .001$), indicating that anxiety scores did change over time. A significant interaction

Table 1. School participants: Intervention, control group and sex breakdown

School	Intervention group			Control group		
	Total Sample	Males	Females	Total Sample	Males	Females
School 1	10	7	3	9	5	4
School 2	13	0	13	13	0	13
School 3	9	3	6	8	4	4
Total	32	10	22	30	9	21

Table 2. Participant's characteristics

School	Average age	Ethnicity	Primary language
School 1	13 years 2 months	68.22% – White Irish 18.18% – Irish travelling community 13.6% – Foreign nationals	68.22% – English 13.6% – Other
School 2	13 years 3 months	92.31% – White Irish 7.69% – Foreign nationals	92.31% – English 7.69% – Other
School 3	13 years 1 month	88.3% – White Irish 11.7% – Foreign nationals	88.3% – English 11.7% – Other

was found between group and time ($F(2,120) = 3.33, p < .05$). This interaction effect is illustrated in Figure 1. Follow-up t -tests revealed that the intervention groups' anxiety scores reduced significantly between preintervention and postintervention ($t(31) = 2.381, p < .05$) whilst the control groups' did not ($t(29) = .384, p = .7$). The intervention groups' anxiety scores also reduced significantly between postintervention and follow-up ($t(31) = 4.985, p < .01$) whilst the control groups' did not ($t(29) = 1.885, p = .07$). Table 3 presents the means and standard deviations for all measures at the three time points.

To investigate whether the 'FRIENDS for Life' Emotional Resiliency Programme is effective in reducing overall anxiety scores at pre- and postintervention when employing a wait-list control group, the parent Spence Children's Anxiety Scale (SCAS-Parent Version) was analysed using a mixed design ANOVA. No significant main effect of group or time was found. A significant interaction effect was found for time and group ($F(1,55) = 3.87, p < .05$). Follow-up t -tests revealed that the intervention groups' parent anxiety scores reduced significantly between preintervention and postintervention ($t(29) = 2.02, p < .05$) whilst the control groups' did not ($t(26) = -.658, p = .517$). Please refer to Table 3 for the descriptive statistics.

To explore whether the 'FRIENDS for Life' programme is effective in reducing scores for any of the six subtypes of anxiety at pre, post and 4-month follow-up, the

student anxiety subtype data was examined. The ANOVA revealed that no anxiety subtype showed a significant main effect of group. All six anxiety subtypes revealed a significant main effect of time. A significant interaction was found between group and time for the anxiety subtype 'Separation Anxiety' ($F(2,106) = 3.086; p = .05$). This interaction effect is illustrated in Figure 2. Follow-up t -tests revealed that the intervention groups' 'Separation Anxiety' subtype scores reduced significantly between preintervention and postintervention ($t(31) = 2.616, p < .05$) whilst the control groups' did not ($t(29) = -.68, p = .5$). Follow-up t -tests also revealed that the intervention groups' 'Separation Anxiety' subtype scores reduced significantly between postintervention and follow-up ($t(28) = 2.018, p < .05$) as did the control groups scores ($t(25) = 2.685, p < .05$). Please refer to Table 3 for the descriptive statistics.

To examine the relationship between students overall self-reported anxiety scores (as measured by the SCAS) and parent's report of their child's overall anxiety scores (as measured by the SCAS-P), an analysis using Pearson's Correlation Coefficient was conducted. The two variables were positively correlated at preintervention ($r = .493, p < .01$) and postintervention ($r = .562, p < .01$). Increases in student's self-reported anxiety scores correlated with increases in parent's report of their child's anxiety scores at both preintervention and postintervention. Interestingly, there was an overall increase in the strength of the correlation from preintervention to postintervention (from $r = .493, p < .01$ to $r = .562, p < .01$) which suggests that both student and parent were scoring in a more congruent manner following the intervention period. When correlating the student and parent scores for the intervention and control group separately, interesting results were found. For the intervention group, the two variables were correlated at preintervention ($r = .357, p < .05$) and at postintervention ($r = .594, p < .01$). There was a substantial increase in the strength of the correlation for the intervention group across the intervention period. This suggests that there was more agreement between parents and children of the intervention group across the intervention period. For the control group, the strength of the correlation remained consistent for the control group between preintervention ($r = .584, p < .01$) and at postintervention ($r = .555, p < .01$).

'Total Anxiety' Results: Spence Children's Anxiety Scale

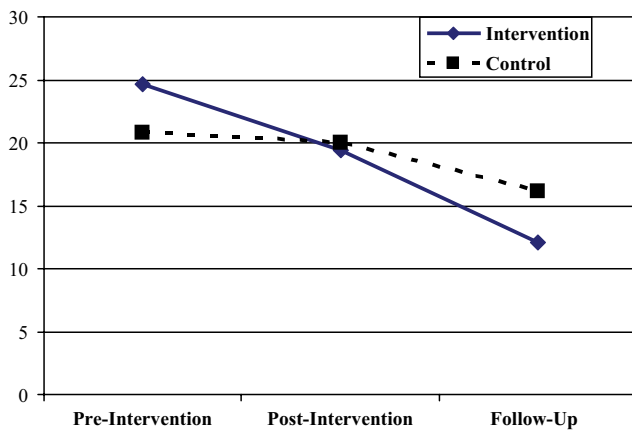


Figure 1. 'Total anxiety' results: Spence children's anxiety scale

Table 3. Descriptive statistics for spence children's anxiety scale (student and parent version)

Time	Groups	Mean	SD
Student SCAS preintervention	Intervention	24.68	13.19
	Control	20.8	16.5
Student SCAS postintervention	Intervention	19.43	8.97
	Control	19.96	14.93
Student SCAS follow-up	Intervention	12.06	6.91
	Control	16.16	12.89
Parent SCAS preintervention	Intervention	17.7	11.12
	Control	14.63	11.9
Parent SCAS postintervention	Intervention	14.46	10.53
	Control	15.44	11.63

'Separation Anxiety' Results: Spence Children's Anxiety Scale

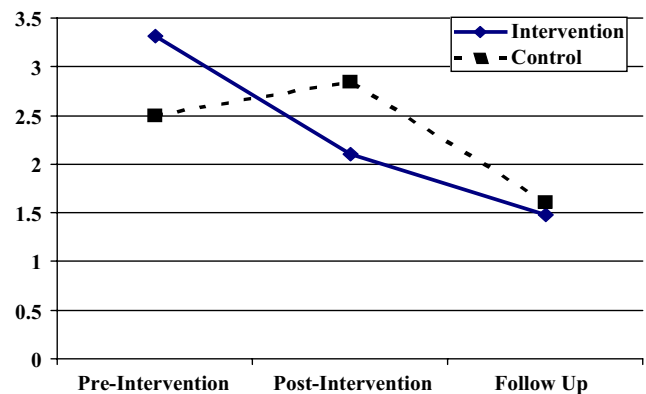


Figure 2. 'Separation anxiety' results: Spence children's anxiety scale

School adjustment

The Pearson's Correlation Coefficient indicated a statistically significant negative linear relationship between student's 'overall anxiety' scores and student's 'overall school adjustment' scores ($r = -.464, p < .01$). Students who had higher levels of 'overall anxiety' also had lower levels of 'overall school adjustment'. The strongest negative correlations were found between the 'Generalised Anxiety Disorder' subtype and 'Overall School Adjustment' ($r = -.363, p < .01$) and between the 'Social Phobia' subtype and 'Overall School Adjustment' ($r = -.363, p < .01$). No significant correlations were found between the 'Obsessive Compulsive Disorder' anxiety subtype and 'overall school adjustment' ($r = -.215, p = .135$).

To evaluate whether the 'FRIENDS for Life' programme is effective in increasing student self-reported overall school adjustment, a 2 (condition: intervention group and wait-list control group) \times 3 (time: pre, post and follow-up) mixed ANOVA design was performed for the overall student school adjustment scores according to both student and teacher report measures. No significant main effects of time or group were found. Furthermore, there were no significant interaction effects between time and group according to student self-report ($F(2,108) = 2.634, p = .076$) or teacher self-report ($F(2,106) = .823, p = .442$). This suggests that the 'FRIENDS for Life' emotional resiliency programme did not have a significant effect on overall school adjustment according to both student and teacher self-report measures.

Discussion

'FRIENDS for Life' and anxiety

A significant interaction effect was found between time and group which revealed that the 'FRIENDS for Life' programme is effective in reducing overall anxiety scores and maintaining this over a 4-month period in a treatment group in comparison to a wait-list control group according to student data. Follow-up tests revealed that the intervention group's anxiety scores reduced significantly during the 'FRIENDS for Life' programme and continued to decrease at the 4-month follow-up, whereas the control groups' scores did not significantly reduce at postintervention or 4-month follow-up. This is consistent with previous research carried out using a treatment versus wait-list comparison group design (Barrett et al., 2005, 2006). Furthermore, there was evidence of a greater reduction in anxiety for the intervention group at the 4-month follow-up than the postintervention time point. This has been evidenced by previous research in the area which has stated that the strongest effect size is after a 3-month follow-up period (Stallard et al., 2007). It is possible that during the 4-month follow-up period, participants internalised what had been learnt and had time to practise the CBT skills and techniques, such as, using positive self-talk, relaxation strategies and challenging unhelpful cognitions. Of particular importance, by employing a control group, this study has provided robust evidence to attribute the significant reductions in anxiety to the 'FRIENDS for Life' intervention programme when implemented within an Irish Educational Setting.

When analysing the parent report measure, a significant interaction effect was found for time and group which revealed that parents of students in the intervention group rated their children as significantly less anxious following the 'FRIENDS for Life' programme whereas parents of students in the control group rated their children as significantly more anxious following the wait-list period. This finding is consistent with previous research (Dadds et al., 1997, 1999).

As was recommended by Spence (1997) and Anderson (1994), this study also evaluated the effects of the 'FRIENDS for Life' programme on the spectrum of anxiety subtypes as identified by the Spence Children Anxiety Scales (Spence, 1997). One significant interaction effect was found across the six anxiety subtypes. This finding demonstrated that the 'FRIENDS for Life' programme is effective in reducing 'separation anxiety' scores and maintaining this over a 4-month period according to student data. There has been limited research analysing the impact of the 'FRIENDS for Life' programme on anxiety subtypes (Stallard et al., 2007) and thus the nature of the cognitive and affective change that occurs is unclear. The 'Separation Anxiety' subtype was assessed through the following items on the Spence Children's Anxiety Scale: 'I would feel afraid being on my own at home', 'I worry about being away from my parents', 'I worry that something awful will happen to someone in my family', 'I feel scared if I have to sleep on my own', 'I have trouble going to school in the mornings because I feel nervous or afraid', 'I would feel scared if I had to stay away from home overnight'. Anecdotal reports from parents and students indicate that the 'FRIENDS for Life' homework activities helped reconcile 'separation anxiety' difficulties. For example, the coping step plans were devised at home with parents to address sleeping difficulties and staying away from home overnight. Intrinsic rewards (special time with parents) and support teams enabled students to complete each step of their coping step plans. It is also possible that these homework activities provided opportunities for the participants to review and reframe their anxieties with key family members providing an opportunity for collaborative problem-solving and cognitive restructuring.

Concurrent ratings of anxiety

The value in seeking the opinions of multiple informants in child mental health assessment is well documented, yet in practice, discrepancies and disagreements frequently occur. Previous research has reported low agreement between parents and children in relation to anxiety (Comer & Kendall, 2004; Salbach-Andrae, Klinkowski, Lenz, & Lehmkuhl, 2009). This study found that student's self-reported anxiety scores and parent's report of their child's anxiety scores were positively correlated at preintervention and postintervention. There are many factors that could have influenced this finding. For example, in clinically referred populations, parents are more likely to emphasise the severity of the child's difficulties than in universal, nonclinical populations (Salbach-Andrae et al., 2009). Comer and Kendall (2004) found that parent-child agreement was stronger for observable signs of anxiety than diagnostic criteria and weaker for school-based indicators than home-based symptoms. It is therefore possible that the parent judgements about anxiety were more accurate and congruent

with child reports as the items on the Spence Anxiety Scale are specific, observable, behavioural statements (e.g. 'my child starts to tremble or shake when there is no reason for this'). It is also possible that the administration of the anxiety measure or completing the 'FRIENDS for Life' homework activities with their child led to a heightened awareness of anxiety by parent/carers. As a result parents/carers were more sensitive to their child's anxiety levels and more accurate in their ratings.

'FRIENDS for Life' and school adjustment

When reflecting on the highly significant correlations between the anxiety subtypes (i.e. GAD and Social Phobia) and school adjustment, it is important to consider the context of the study. Participating students had recently transferred from primary to secondary school. Individuals with GAD and social phobia were more likely to be those experiencing problems with school adjustment. In accordance with the DSM-IV-TR the 'Generalised Anxiety Disorder' subtype can manifest itself within the educational setting through (a) difficulties with concentration, (b) a need for reassurance and approval and (c) perfectionism (American Academy of Pediatrics, 1996). These individual characteristics could provide some explanation for the negative relationship between the 'Generalised Anxiety Subtype' and school adjustment. Similarly, according to the DSM-IV-TR "The essential feature of Social Phobia is a marked and persistent fear of social or performance situations in which embarrassment may occur". It seems likely that students who scored high on the 'Social Phobia' subtype were the students with greatest difficulty adjusting to their new academic setting.

There were no significant main or interaction effects for 'overall school adjustment', according to the participants' self-report with the Child Rating Scale and teacher ratings with the parallel version of this measure. This suggests that the 'FRIENDS for Life' programme did not have an impact on the domains of school adjustment sampled. Had the first author specifically tailored the 'FRIENDS for Life' activities to address adjustment to new academic settings, it is possible that the interaction effect according to student report yielded in the current study ($F(2,108) = 2.634, p = .076$) would have reached significance. Adaptation of some of the 'FRIENDS for Life' sessions – coping step plans, relaxation techniques, positive self-talk, six-step problem-solving plans – are all appropriate cognitive behavioural therapy components that could be adapted to target the specific anxiety that can be associated with the educational transition from primary to secondary school.

Study limitations

It is important to acknowledge the limitations of the current study. First of all, the three schools who participated in this study educated students from low socioeconomic backgrounds. Therefore, questions about the representativeness of the sample and ultimately the generalisability of the results must be raised. A further limitation of the study was that the statistical analysis was based on self-reported subjective interpretation of anxiety and school adjustment. The question of the degree of accuracy of these self-report measures is widely cited in the research literature (Kendall & Flan-

nery-Schroeder, 1998). However, an attempt was made to mediate this effect by having at least two respondents for anxiety (i.e. student and parent) and school adjustment (i.e. student and teacher).

Implications for practice

The following section outlines the clinical implications as a result of the findings in the current study. Firstly, therapeutic interventions, originally designed to be conducted within clinical settings can be equally effective when delivered in educational settings by an appropriately trained and knowledgeable professional. This has significant implications for the delivery of mental health interventions. In addition to facilitating large numbers of students over a short period of time (10–12 weeks), school-based programmes such as the 'FRIENDS for Life' programme can be carried out in isolated communities. Furthermore, school-based interventions can help to overcome many of the difficulties associated with delivery of mental health services including cost, availability, commitment and location (Jorm & Wright, 2007). Therefore, 'FRIENDS for Life' delivered as a school-based intervention is a more effective method of reducing overall prevalence rates of childhood anxiety and ultimately increasing emotional resilience within communities.

Secondly, the current study has demonstrated that the 'FRIENDS for Life' programme is particularly effective in reducing separation anxiety in children and adolescents. As is highlighted in the literature, paternal absence, socioeconomic disadvantage and genetic vulnerability can place children and adolescents at risk of developing separation anxiety. Cases of separation anxiety are typically referred when the child refuses to attend school (Heyne, King, & Ollendick, 2005). The 'FRIENDS for Life' programme is a cost-effective, efficient, school-based intervention that could be implemented in this particular clinical situation.

This study has highlighted a strong negative relationship between anxiety and school adjustment. The 'FRIENDS for Life' workbook activities can be tailored to address school adjustment difficulties that may arise as a result of the anxiety associated with the transition to secondary school. For example, 'Coping Step Plans' can be tailored to focus on making new friends and developing appropriate study skills. 'Support Teams' for each student could be identified (including mentors, class tutor). The 'Six-Stage Problem-Solving Plans' could address the difficulties associated with peer pressure or social isolation.

Finally, raising awareness of child mental health through psycho-education workshops would assist parents in becoming more skilled to identify and seek intervention early for their children. This study has also confirmed that parent-child agreement is enhanced when employing measures that rate concrete, observable signs of anxiety in children and adolescents. This has implications for the future construction of self-report measures for assessing internalising mental health difficulties such as anxiety.

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