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ORIGINAL ARTICLE

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Aims: To evaluate the efficacy and acceptability of the FRIENDS programme.

Methods: Uncontrolled before and after assessment of the FRIENDS programme, a 10 session cognitive behaviour therapy programme. A total of 213 children aged 9–10 years from six primary schools were studied. Main outcome measures: Spence Children's Anxiety Scale, Culture Free Self-Esteem Questionnaire, qualitative assessment of acceptability.

Results: End of programme data from 197 children (92.5% of eligible sample) showed significantly lower rates of anxiety ($t=2.95$, $df=384$) and significantly improved levels of self-esteem ($t=3.13$, $df=386$). Significant improvements were obtained in over half of those children with the most severe emotional problems. A total of 190 children (89.2%) completed a qualitative assessment of acceptability: 154 (81%) thought it was fun, 147 (77.4%) would recommend it to a friend; 137 (72.8%) thought they had learned new skills, and 78 (41.1%) had helped someone else with their new skills.

Conclusions: The FRIENDS programme appears to be an efficacious and acceptable way to promote emotional resilience (reduced anxiety and increased self-esteem) in primary school aged children, consistent with previous studies in Australia. Further controlled studies are needed to assess natural history of anxiety and self-esteem and whether benefits are maintained over time.

Emotional disorders are the most prevalent mental health problems in children. Community surveys highlight that up to 20% may be affected at any one time with almost half of these requiring specialist mental health interventions.^{1–3} Emotional disorders significantly interfere with the child's interpersonal and academic functioning, and without treatment can have a chronic and unremitting course.^{4–5}

Results from randomised controlled trials highlight that cognitive behaviour therapy (CBT) is an effective intervention for child anxiety disorders.^{6–10} While effective interventions are available, comparatively few children with significant emotional disorders receive specialist help. A recent national community survey undertaken in the UK highlighted that over 18 months only 22.1% of children with significant mental health problems had received help from specialist child and adolescent mental health services.¹¹ The majority of children with significant emotional problems do not therefore receive specialist help.

The National Service Framework for children, a 10 year plan to modernise and improve health services in the UK, has acknowledged the need to increase child mental health services and to provide comprehensive services including mental health promotion and early intervention by 2006.¹² The development of widely available effective mental health preventative programmes is therefore consistent with these objectives.

Recent data from Australia highlight how a universal preventative CBT programme, FRIENDS, delivered in schools has been effective in enhancing children's emotional resilience. Children participating in the 10 session FRIENDS programme had significantly lower rates of anxiety and depression and these gains were maintained at one year follow up.^{13–15}

This paper describes an evaluation of the first UK trial of the FRIENDS preventative programme delivered by school

nurses to junior school children aged 9–10 in a local authority in southwest England. The efficacy of the programme in reducing anxiety and increasing self-esteem, and the acceptability of the programme to children are assessed.

METHODS

Project development

The project was funded through the Children's Fund, a central government funding stream designed to provide preventative services for children aged 5–13 at risk of social exclusion.¹⁶

Following a comprehensive needs assessment, literature review, and consultation with professionals and children, FRIENDS was selected as the emotional health preventative intervention for the local authority area of Bath and northeast Somerset.

Intervention: the FRIENDS programme

FRIENDS is a universal 10 session cognitive behaviour therapy (CBT) programme designed to promote children's emotional resilience. Developed in Australia it is provided in schools to all children in a class, irrespective of their emotional health status. FRIENDS utilises behavioural, physiological, and cognitive strategies teaching children practical skills to identify their anxious feelings; to learn to relax; to identify unhelpful anxiety increasing thoughts and to replace these with more helpful thoughts; and how to face and overcome their problems and challenges. Each child has an attractive workbook that they complete throughout the 10 session programme.

In this trial FRIENDS was delivered to classes of children by trained school nurses. School nurses attended a two day training session designed to familiarise them with the FRIENDS programme and the underlying theoretical model of cognitive behaviour therapy. Each nurse has a manual that

provides a detailed structure for each of the 10 sessions. Supervision of the programme is provided monthly by a child clinical psychologist experienced in CBT. Similarly there is a review at the end of each programme to discuss problems, modify the materials, and share helpful ideas.

Recruitment

There is evidence to suggest that FRIENDS may be marginally more effective with younger children and so children aged 9–10 were selected as the target group.¹⁷ A total of 21 schools, in three geographical areas with the highest rates of social and economic disadvantage, were identified that provided education for this age group. These schools were invited to participate in FRIENDS, with 20 (95.2%) agreeing.

The need for ethics approval was discussed with the chair of the local ethics committee. This was deemed unnecessary since the proposed assessments were part of the ongoing audit and development of the clinical service.

At the start of each term all parents in each of the schools that will run FRIENDS that term were sent a letter informing them about the programme. Parental permission was refused for only one of the eligible 844 children (99.9%).

Evaluation

In each of the first two terms one school from each of the three geographical areas were selected as assessment schools ($n = 6$) to evaluate the programme including efficacy and acceptability.

Efficacy

Questionnaires were administered by two psychology students during a classroom session. Each question was read aloud to the group and their understanding of each item checked. Each child then individually rated each question in their own assessment pack.

Children completed the following two standardised measures of emotional health before and after completing FRIENDS.

- *Spence Children's Anxiety Scale*.¹⁸ This self-completed 44 item questionnaire assesses anxiety in the different areas of social phobia, separation anxiety, panic attacks and agoraphobia, physical injury fears, obsessive compulsive disorder, and generalised anxiety disorder. The scale has high internal reliability and good concurrent validity.¹⁸
- *Culture Free Self Esteem Questionnaire Form B*.¹⁹ This 30 item self-completed scale provides a measure of general self-esteem as well as social, academic, and parental self-esteem. The scale has been extensively used and has good psychometric properties.¹⁹

A parametric analysis of continuous data was undertaken with Student's t tests to compare average questionnaire scores. It was hypothesised that children would have significantly less anxiety and higher self-esteem at the end of FRIENDS.

Acceptability

A qualitative evaluation of children's subjective views about FRIENDS was undertaken. A participation worker from the Children's Society worked with a small group of children to identify 10 variables they considered important about FRIENDS. These included whether the programme was understandable, enjoyable, and useful. These items were then used for the qualitative evaluation in which children rated on a three point scale how much they thought FRIENDS fulfilled each of the 10 items.

RESULTS

Efficacy

Pre- and post-average scores of total sample

A total of 213 children in six different schools completed the assessments. Of these, six were absent and did not complete the initial assessment and 10 did not complete the post-FRIENDS assessment. Matched pre- and post-data were therefore available for 197 children (92.5% of the eligible sample). Pre- and post-average total and sub-scale scores are summarised in table 1.

The results indicate significant changes in total anxiety and self-esteem by the end of FRIENDS, with anxiety reducing ($t = 2.950$, $df = 384$, $p = 0.003$; 95% CI 1.87 to 9.33) and self-esteem increasing ($t = 3.130$, $df = 386$, $p = 0.002$; 95% CI 0.56 to 2.45). Significant changes on two of the four self-esteem and five of the six anxiety sub-scales were obtained.

In the absence of a comparable control group a comparison of the assessment scores of children who took part in FRIENDS during the first term ($n = 81$) was made with those who participated in the second term ($n = 116$). There were no significant differences in pre- or post-intervention average scores on any measure or sub-scale.

Pre- and post-change of "high risk" sub-sample

An analysis was undertaken to determine the impact of the programme on the 10% of children with the highest anxiety or lowest self-esteem pre-FRIENDS scores. These children formed the emotional "high risk" group. Inspection of the data revealed that a total score cut-off of 60 on the SCAS identified 20 (9.4%) children ($x = 69.90$, $SD = 11.70$), and a score of 10 or less on the CFSI identified 22 (10.33%) ($x = 8.00$, $SD = 1.48$). These would correspond with the scores obtained by children who are clinically anxious and who have very low self-esteem.^{18 19}

Post-FRIENDS assessments revealed that average scores of the high risk group on self-esteem increased ($x = 13.45$, $SD = 5.13$), while total anxiety reduced ($x = 55.90$, $SD = 23.79$). These differences were statistically significant (self-esteem: $t = 4.789$, $df = 42$, $p = 0.0001$; 95% CI 7.75 to 3.16; anxiety: $t = 2.362$, $df = 38$, $p = 0.023$; 95% CI 2.00 to 26.00).

In addition, the status of 60% of the children in the emotional "high risk" group positively changed by the end of the programme. Twelve of 20 had scores of less than 60 on the SCAS and 13/22 scored greater than 10 on the CFSI. Of those children who continued to score within the "high risk" category, 5/8 had higher anxiety scores by the end of the FRIENDS, whereas none had a lower self-esteem.

Acceptability

A total of 190 children participated in the qualitative evaluation of FRIENDS. The results are summarised in table 2.

More than three quarters of the children thought FRIENDS was fun and would recommend it to a friend. Approximately two thirds thought they had learned new skills and that the programme had helped them. On the negative side, only 43% thought they had enough time to complete the work.

DISCUSSION

The results of this study are consistent with those obtained in Australia and suggest that the FRIENDS preventative cognitive behaviour therapy programme does have a positive effect on the emotional resilience of 9–10 year old children. In particular, levels of anxiety reduced and ratings of self-esteem increased. In terms of social validity the majority of children enjoyed the programme, and learned new skills; interestingly 40% had used their new skills to help someone else.

Table 1 Comparison of mean (SD) pre- and post-FRIENDS assessment scores (n = 197)

Questionnaire	Pre-FRIENDS	Post-FRIENDS	p value
Culture Free Self Esteem Questionnaire (total)	17.41 (4.82)	18.92 (4.65)	0.002
General self-esteem	6.81 (2.26)	7.63 (2.31)	0.0001
Social self-esteem	3.00 (1.19)	3.20 (1.26)	0.107
Academic self-esteem	3.55 (1.31)	3.74 (1.27)	0.145
Parental self-esteem	4.05 (1.16)	4.35 (0.91)	0.006
Spence Children's Anxiety Scale (total)	36.08 (17.82)	30.49 (19.36)	0.003
Panic symptoms	5.71 (4.84)	4.68 (4.56)	0.033
Separation anxiety	6.38 (3.53)	5.23 (3.93)	0.003
Fears about physical injury	4.08 (3.22)	3.63 (3.11)	0.158
Social phobia	6.41 (4.16)	5.31 (4.07)	0.009
Obsessive compulsive symptoms	6.88 (3.85)	5.55 (3.92)	0.001
Generalised anxiety	6.94 (3.66)	6.08 (3.62)	0.022

Although FRIENDS was positively evaluated by the children, two areas received less favourable evaluations. Only 43% of children felt that they were given sufficient time to complete the work and 51% felt safe talking about themselves. Our experience has highlighted that the demands of FRIENDS in terms of written assignments and completing workbooks have been challenging for the less able children. As a result of this we have made various modifications to the programme and used more prepared responses that can be pasted into the child's book. In terms of feeling safe, the worries the children have identified have been significant and include concerns about domestic violence, parental drug and alcohol abuse, and bullying. Parents have died during the course of the programme and have been involved in violent acts such as shootings. Understandably children will find it difficult to discuss such significant issues although reassuringly when they have, 81% felt that their concerns had been heard.

Delivering FRIENDS in school had a positive effect on the accessibility of effective mental health interventions. Only one of the 844 eligible children was refused parental permission to participate in the programme. Similarly by focusing on the 9–10 year age group the unauthorised absences that tend to increase in secondary school are minimised. Universal preventative programmes such as this are also less stigmatising, and anecdotally the whole class approach developed a positive culture within the classroom, which supported the continued use of the newly acquired skills.

While universal preventative programmes have a number of advantages, a common criticism is that they are not sufficiently potent to help those with the most significant problems. Our initial analysis would not support this view since the status of over half of the children with the most significant problems had changed by the end of FRIENDS. Further methodologically robust research is required to

substantiate this finding. Diagnostic interviews could be used to determine whether the child's diagnostic status had changed and perhaps most importantly, whether the resultant change is clinically meaningful.

Our experience of FRIENDS has highlighted important issues about the role of the school nurse, the widespread use of CBT, and the sustainability of the programme. The school nurse's understanding of mental health, expertise in group work, and relation with schools results in them being well placed to deliver school based preventative mental health programmes such as FRIENDS. These preliminary results are encouraging and suggest that non-mental health professionals can be trained and supervised in the delivery of standardised emotional health preventative programmes. It is however important to recognise the limitations of this expertise and in particular that the school nurses are not trained cognitive behaviour therapists. While able to competently deliver a standardised CBT programme to children with limited psychopathology, they have insufficient skills to deliver individually constructed CBT interventions to children with significant mental health problems. Indeed, studies evaluating the efficacy of training non-professional groups to deliver CBT interventions to children with significant mental health problems have not been encouraging.²⁰

The widespread use of cognitive behaviour therapy with large groups of mixed ability children aged 9–10 has raised questions about whether individual children can fully understand the concepts that are being discussed. Although there is a clinical consensus that children aged 7 and above are able to participate in CBT, it will only be effective if it is adapted to be compatible with the child's level of development.²¹ While the overall results are positive, informal feedback suggests that some children may find it difficult to engage with the cognitive component of the programme.

The issue of sustainability is important since although funding has been agreed for a further two years the project is limited to a defined geographical area and there is no additional capacity for the trained school nurses to extend this work. We are working to highlight benefits of this service as part of a strategy to address the key priority of emotional health and to make a case for mainstreaming it within the main agencies involved (health and education services).

While these results are encouraging, this study does have a number of limitations, which need to be acknowledged. Firstly, there was no control group and as such the reported improvements in psychological functioning could be a result of the passage of time rather than specifically due to FRIENDS. Secondly, although statistically significant changes were noted on the outcome measures, the clinical significance of these was not assessed. It is not therefore possible to assert that FRIENDS resulted in clinically meaningful improvements in the children's everyday functioning.

Table 2 Children's evaluation of FRIENDS (n = 190)

	Yes	A little	No
Did you understand most of the work?	163	25	2
Did you feel safe talking about yourself?	97	76	17
Were you listened to?	162	21	7
Was it fun?	154	36	0
Do you think it has helped you?	124	42	24
Did you learn anything new?	137	36	17
Were you given enough time to do the work?	82	64	44
Did your family think FRIENDS was good?	114	44	32
Have you helped anyone with your new skills?	78	28	84
Would you recommend it to a friend?	146	23	21

What is already known on this topic

- Cognitive behaviour therapy is an effective intervention for emotional problems in children

Thirdly, there was no longer term follow up and as such it is not known whether the noted improvements were maintained over time. Similarly, the assessments relied on self-report from the children and the evaluation would be enhanced by using reports from a range of assessors, particularly teachers and parents. Finally, perhaps the greatest test of emotional health preventative programmes such as these is their impact on referrals to specialist mental health services. At present we do not know whether FRIENDS has reduced the incidence of emotional problems in the general population and as such reduced the demand on over-stretched specialist mental health services.

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Competing interests: none

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What this study adds

- FRIENDS delivered in schools by school nurses was efficacious in reducing anxiety and increasing self-esteem in 9–10 year old children. Children with the highest anxiety and lowest self-esteem showed significant improvements by the end of FRIENDS

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