



# **EVIDENCE BASE ABSTRACTS**

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# Introduction

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*FRIENDS* is about preventing childhood anxiety and depression through the building of emotional resilience. It aims to reduce the incidence of serious psychological disorders, emotional distress and impairment in social functioning by teaching children and young people how to cope with, and manage, anxiety both now and in later life.

*FRIENDS* is a community-oriented cognitive-behavioural intervention based on a firm theoretical model which addresses cognitive, physiological and behavioural processes that are seen to interact in the development, maintenance and experience of anxiety.

The program has been designed to be effective as both a treatment and a school-based prevention course promoting self-development. When used in schools it is targeted across a single selected grade of children. It can be used in both primary (usually around ages 10–12) and secondary (usually around ages 15–16) school.

*FRIENDS* is unique in its commitment to evidence-based research support for all aspects of the program. The program's founder, Dr Paula Barrett published the world's first family treatment control trial for childhood anxiety in 1996. She and her research team have since been credited with publishing more controlled trials for childhood anxiety than any other group in the world.

*FRIENDS* is the only clinically validated early intervention and prevention program for anxiety officially recognised in Australia today and has an enviable record of internationally published research articles.

In simple terms, this research says that up to 80% of children showing signs of an anxiety disorder no longer display that disorder after completing the program. This effect has been confirmed at up to 6 years posttreatment.

Research and evaluation of *FRIENDS*, including independent replication studies, continues today throughout Australia and overseas. Within Australia, several large-scale school-based trials in Western Australia, New South Wales and Queensland have confirmed the program's ease of use, social acceptability and appropriateness as a universal prevention approach. Overseas trials in Germany and The Netherlands have shown the effectiveness of *FRIENDS* when translated into other languages. Research from the United States, the United Kingdom and Canada also show effectiveness in these cultures. Adaptations have also been made to the program's English delivery to accommodate Australian children from non-English speaking backgrounds and Australian Indigenous populations.

The abstracts presented in this booklet follow the program's development from 1996 through to the present day and feature research on "Coping Koala" as the program was first known and "FRIENDS" as it was renamed in 1999.

# Research Abstracts

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## Family Treatment

Barrett, P.M., Dadds, M.R., & Rapee, R.M. (1996). Family treatment of childhood anxiety: A controlled trial. *Journal of Consulting and Clinical Psychology, 64*, 333–342.

A family-based treatment for childhood anxiety was evaluated. Children ( $n = 79$ ) aged 7 to 14 years who fulfilled diagnostic criteria for separation anxiety, overanxious disorder, or social phobia were randomly allocated to three treatment conditions: cognitive behaviour therapy (CBT: *Coping Koala* Program), CBT plus family management (CBT: *Coping Koala* Program + Family), and waiting list. The effectiveness of the interventions was evaluated at posttreatment and at 6 and 12-month follow-up. Results showed 70.3% of the children in the CBT groups and 95.6% of the children in the CBT + Family group did not meet criteria.

## Family Treatment Six-year Follow-up

Barrett, P.M., Duffy, A.L., Dadds, M.R., & Rapee, R.M. (2001). Cognitive-behavioral treatment of anxiety disorders in children: Long-term (6-year) follow-up. *Journal of Consulting and Clinical Psychology, 69*, 135–141.

Authors evaluated the long-term effectiveness of cognitive behaviour therapy (CBT) for childhood anxiety disorders. Fifty-two clients (aged 14 to 21 years) who had completed treatment an average of 6.17 years earlier were reassessed using diagnostic interviews, clinician ratings, and self and parent-report measures. Results indicated that 85.7% no longer fulfilled the diagnostic criteria for any anxiety disorder. On a majority of other measures, gains made at 12-month follow-up were maintained. Furthermore, CBT and CBT plus family management were equally effective at long-term follow-up. These findings support the long-term clinical utility of CBT in treating children and adolescents suffering from anxiety disorders.

## Group Treatment

Barrett, P.M. (1998). Evaluation of cognitive-behavioural group treatments for childhood anxiety disorders. *Journal of Clinical Child Psychology, 27*(4), 459–468.

Researchers have shown the potential benefits of behavioural group programs as increased sources of reinforcement, prompting, normalisation, modelling and helping behaviour. The present researchers conducted a randomised clinical trial investigating the effectiveness of cognitive-behavioural procedures and family-management training presented in a group format for childhood anxiety disorders (*Coping Koala*). The two treatment conditions were cognitive-behavioural group treatment and cognitive-behavioural plus family-management-training group treatment. Both active treatment conditions produced significant change in diagnostic status, self-report measures and independent clinician ratings of improvement, in contrast to the waitlist control condition. Improvement occurred across measures and was maintained at 12-months follow-up.

## Group Treatment II

Shortt, A., Barrett, P., & Fox, T. (2001). Evaluating the FRIENDS program: A cognitive-behavioural group treatment of childhood anxiety disorders: An evaluation of the FRIENDS program. *Journal of Clinical Child Psychology*, 30(4), 523–533.

Conducted the first randomised clinical trial evaluating the efficacy of the *FRIENDS* program, a family-based group cognitive-behavioural treatment (FGCBT) for anxious children. Children ( $n = 71$ ) ranging from 6 to 10 years of age who fulfilled diagnostic criteria for separation anxiety (SAD), generalised anxiety disorder (GAD), or social phobia (SOP) were randomly allocated to *FRIENDS* or to a 10-week waitlist control group. The effectiveness of the intervention was evaluated at posttreatment and 12-month follow-up. Results indicated that 69% of children who completed FGCBT were diagnosis-free compared to 6% of children who completed the waitlist condition. At 12-month follow-up, 68% of children were diagnosis-free. Beneficial treatment effects were also evident on the self-report measures completed by the children and their mothers. Parents and children reported high treatment satisfaction. Results suggest that *FRIENDS* is an effective treatment for clinically anxious children. Limitations of this study and directions for future research are discussed.

## Selective-intervention Prevention

Dadds, M.R., Spence, S.H., Holland, D.E., Barrett, P.M., & Laurens, K.R. (1997). Prevention and early intervention for anxiety disorders: A controlled trial. *Journal of Consulting and Clinical Psychology*, 65, 627–635.

The Queensland Early Intervention and Prevention of Anxiety Project evaluated the effectiveness of a cognitive-behavioural and family-based group intervention for prevention of the onset and development of anxiety problems in children. A total of 1,786 7 to 14-year-olds were screened for anxiety problems using teacher nomination and children's self-report. After recruitment and diagnostic interviews, 128 children were selected and assigned to a 10-week school-based child and parent-focused psychosocial intervention (*Coping Koala Program*) or to a monitoring group. As a group, children who received the intervention emerged with lower rates of anxiety disorder at 6-month follow-up, compared to those who were identified but monitored only. Of those who had features of, but no full disorder, at pretreatment ( $n = 33$ ), 54% progressed to a diagnosable disorder at the 6-month follow-up in the monitoring group, compared with only 16% in the intervention group. These results indicated that the intervention was successful in reducing rates of disorder in children with mild to moderate anxiety disorders, as well as in preventing the onset of anxiety disorder in children with early features of a disorder.

## Selective-intervention Prevention Two-year Follow-up

Dadds, M.R., Holland, D., Barrett, P.M., Laurens, K., & Spence, S. (1999). Early intervention and prevention of anxiety disorders in children: Results at 2-year follow-up. *Journal of Consulting and Clinical Psychology*, 67, 145–150.

The Queensland Early Intervention and Prevention of Anxiety Project evaluated a child and family-focused group intervention for preventing anxiety problems in children. This article reports on 12 and 24-month follow-up data to previously reported outcomes at posttreatment and at 6-month follow-up. A total of 1,786 7 to 14-year-olds were screened for anxiety problems using teacher nominations and children's self-report. After diagnostic interviews, 128 children were selected and

assigned to either a 10-week school-based child and parent-focused psychosocial intervention or a monitoring group. Both groups showed improvements immediately at post-intervention and at 6-months follow-up; the improvement was maintained in the intervention group only, reducing the rate of existing anxiety disorder and preventing the onset of new anxiety disorders. At 12 months, the groups converged, but the superiority of the intervention group was evident again at 2-year follow-up. Severity of pretreatment diagnoses, gender and parental anxiety predicted poor initial response to intervention, whereas pretreatment severity was the only predictor of chronicity at 24 months. Overall, follow-up results show that a brief school-based intervention for children can produce durable reductions in anxiety problems.

## Universal School-based Intervention

Lowry-Webster, H.M., Barrett, P.M., & Dadds, M.R. (2001). A universal prevention trial of anxiety and depressive symptomatology in childhood: Preliminary data from an Australian study. *Behaviour Change*, 18, 36–50.

This paper describes the development and preliminary findings of a program designed to prevent the development of anxiety and depressive symptoms in children aged 10–13 years. Using a universal prevention approach, a total of 594 children were randomly assigned on a class-by-class basis to either a 10-session family group-CBT program (*FRIENDS for Children*) routinely implemented as part of the school curriculum, or to a comparison group. Pre–post-intervention changes were examined universally, and for children who scored above the clinical cut-off for anxiety at pretest. Results revealed that children in the *FRIENDS* intervention group reported fewer anxiety symptoms, regardless of their risk status, than the comparison group at posttest. In terms of reported levels of depression, only the high-anxiety group who completed the *FRIENDS* intervention evidenced improvements at posttest. Overall, these preliminary results appear to support the benefits of a school-based universal cognitive-behavioural intervention program. Implications of this study are discussed and long-term follow-up measures are currently underway.

## Universal School-based Intervention — One-year Follow-up

Lowry-Webster, H., Barrett, P., & Lock, S. (2003). A universal prevention trial of anxiety symptomatology during childhood: Results at one-year follow-up. *Behaviour Change*, 20(1), 25–43.

Research shows that anxiety disorders are common and problematic in children. Treatment studies demonstrate that cognitive-behavioural interventions for children can successfully minimise these problems. When implemented as early intervention or prevention programs, these interventions can prevent the onset of anxiety problems in 7 to 14-year-olds and reduce existing levels of anxiety. In 2001 we evaluated a universal prevention trial of anxiety and depression during childhood. This article reports on the results of this study at 12-month follow-up. Participants were 594 children aged 10–13 years from seven schools in Brisbane, Australia, who were randomly assigned to an intervention or control group on a school-by-school basis. The intervention was based on the group CBT program called *FRIENDS* (Barrett, Lowry-Webster, & Holmes, 1999) and was subsequently implemented by trained school teachers, using a universal model of prevention, into their school setting. Results were examined universally (for all children) and for children who scored above the clinical cut-off for anxiety at pretest. Children in the intervention group reported fewer anxiety symptoms, regardless of their risk status, at posttest than the

control group. In terms of reported levels of depression, only the high-anxiety group who completed the *FRIENDS* intervention evidenced significant improvements at posttest. At 12-month follow-up, intervention gains were maintained, as measured by self-reports and diagnostic interviews. Specifically, 85% of children in the intervention group who were scoring above the clinical cut-off for anxiety and depression were diagnosis-free in the intervention condition, compared to only 31.2% of children in the control group. Implications of these findings are examined, alongside limitations of the study and directions for future research.

## Universal School-based Intervention — Long Term Outcomes

Lock, S. & Barrett, P.M., (2003). A Longitudinal Study of Developmental Differences in Universal Preventive Intervention for Child Anxiety, *Behaviour Change*, 20, 183–199.

The present paper presents the results of a longitudinal study evaluating the effects of a universal school-based intervention for child anxiety (*FRIENDS*) at two developmental stages. The study involved a cohort of 733 children enrolled in grade 6 ( $n = 336$ , 45.6%) aged between 9 and 10 years, and grade 9 ( $n = 401$ , 54.4%) aged between 14 and 16 years. Participants were allocated to either a school-based cognitive-behavioural intervention or to a monitoring group, and completed standardised measures of anxiety, depression and coping style. Young people identified as “at risk” of an anxiety disorder were assessed for a clinical diagnosis with a structured diagnostic interview. Findings showed universal intervention as potentially successful in reducing symptoms of anxiety and increasing coping skills in children. Primary school children reported the greatest changes in anxiety symptoms, suggesting earlier preventive intervention was potentially more advantageous than later intervention. Developmental differences in anxiety, depression and coping strategies are discussed in addition to the implications and limitations of this study and directions for future research.

## Universal School-based Intervention — Long Term Outcomes II

Barrett, P.M., Farrell, L.J., Ollendick, T.H., & Dadds, M. (2005). Long-term outcomes of an Australian universal prevention trial of anxiety and depression symptoms in children and youth: An evaluation of the *FRIENDS* Program, *Journal of Clinical Child and Adolescent Psychology*. Under review.

This study evaluated the long-term effectiveness of the *FRIENDS* Program in reducing anxiety and depression in a sample of children from Grade 6 and Grade 9, in comparison to a monitoring condition. Previous studies (Barrett & Turner, 2001; Lock & Barrett, 2003; Lowry-Webster, Barrett, & Dadds, 2001; Lowry-Webster, Barrett, & Lock, 2003) have demonstrated the efficacy of the *FRIENDS* program in reducing anxiety and depressive symptomatology at post-intervention and up to 12 months follow-up. This study presents follow-up data at 12 months, 24 months and 36 months follow-up. Results of the present study indicated that intervention reductions in anxiety and depression reported previously were maintained long-term, with the intervention group reporting significantly lower ratings of anxiety and depression at long-term follow-up. There was a significant time x intervention group x gender effect on anxiety, with females in the intervention group reporting significantly lower anxiety at 12-month and 24-month follow-up, but not at 36-month follow-up, in comparison to the monitoring condition. Results demonstrated a prevention effect, with significantly fewer high-risk students at 36-month follow-up in the intervention

condition than in the monitoring condition. Results are discussed within the context of other recent prevention studies.

## Universal School-based Intervention — Psychologists versus Teachers

Barrett, P.M., & Turner, C.M. (2001). Prevention of anxiety symptoms in primary school children: Preliminary results from a universal trial. *British Journal of Clinical Psychology*, 40, 399–410.

Preliminary data are presented on the effectiveness of a universal school-based intervention for the prevention of anxiety symptoms in primary-school children. Four hundred and eighty-nine children (10–12 years) were assigned to one of three intervention conditions: a psychologist-led preventive intervention, a teacher-led preventive intervention, or a usual care (standard curriculum) with monitoring condition. The intervention offered was the *FRIENDS for Children* program, a 12-session cognitive-behavioural intervention, originally based upon Kendall's (1994) *Coping Cat* program. Participants in both intervention conditions reported fewer symptoms of anxiety at post-intervention than participants in the usual-care condition. These preliminary results suggest that universal programs for childhood anxiety are promising intervention strategies that can be successfully delivered to a school-based population and integrated into the classroom curriculum.

## Universal School-Based Intervention — Child versus Youth

Barrett, P.M., Lock, S., & Farrell, L. (in press). Developmental differences in universal preventive intervention for child anxiety. *Clinical Child Psychology and Psychiatry*.

Compared effects of a universal school-based preventive intervention for child anxiety at two developmental stages. Six hundred and ninety-two participants enrolled in grade 6 ( $n = 293$ ), aged between 9 and 10 years, and grade 9 ( $n = 399$ ), aged between 14 and 16 years, were allocated to either a school-based cognitive-behaviour intervention or to a monitoring group. Participants completed the Spence Anxiety Scale and the Child Depression Inventory and were stratified into low, moderate and high-risk groups based on their anxiety scores at pre-intervention. The effects of the prevention program were evaluated at post-intervention and 12-month follow-up intervals. Results indicated significant reductions in anxiety ( $p < .001$ ) and depression ( $p < .05$ ) across high and moderate-risk groups in both the intervention and monitoring conditions at post-intervention. This trend was evident at 12-month follow-up; however, reductions in anxiety were greater in the intervention condition ( $p < .05$ ). At post-assessment, grade 6 participants showed significant changes in anxiety compared with the grade 9 participants ( $p < .001$ ), although both primary and secondary-school participants showed equal reductions in anxiety at 12-month follow-up. Overall findings suggest universal intervention is potentially successful in reducing symptoms of anxiety in children. Primary-school children reported the greatest changes in anxiety symptoms, suggesting earlier preventive intervention is potentially more advantageous than later intervention in adolescence. Implications and limitations of this study and directions for future research are discussed.

## Universal School-based Intervention — Large Scale

Hau, P. (2001). Promoting resilience in primary schools: The FRIENDS Program. Unpublished document.

An evidence-based universal mental-health promotion and prevention program, *FRIENDS*, was tested with 1,136 primary-school students across 29 schools in two school districts (Albany and Narrogin) in the Great Southern region of Western Australia. Most schools opted to deliver the program to year 4 children, while others decided to target year 5s. Some of the smaller schools that had spilt year levels (e.g., 4 to 7) in one class were encouraged to deliver the program to the whole class, rather than only a handful of students in the 4/5 year level. *FRIENDS* was implemented as part of the new curriculum framework and in some schools was jointly delivered by school teachers and nurses. The school psychologist service provided teacher supervision and support sessions to teachers to ensure program integrity and professional support. Pre and posttests were administered using the Spence Children's Anxiety Scale test. Parent programs were also conducted. Results are still to be analysed, with preliminary observations showing the schools have certainly embraced the concept of the *FRIENDS* program. Originally only 650 students had been targeted for the trial, but the number of schools wanting to be involved with the program was exceeded considerably. Already there are new schools interested in piloting the program next year. The challenge will now be to sustain the program in the Great Southern region by offering support requested by schools in future years. This project was funded by the Commonwealth Department of Health and Aged Care — The National Suicide Prevention Strategy.

## Selective Intervention — The Netherlands

Muris, Peter., & Mayer, Birgit. (2000). Vroegtijdige behandeling van angststoornissen bij kinderen. [Early treatment of anxiety disorders in children]. *Gedrag & Gezondheid: Tijdschrift voor Psychologie & Gezondheid*, 28(4), 235–242.

The intervention protocol “Early treatment of anxiety disorders in children” is developed to detect and treat children at risk. The protocol consists of three stages: (1) the detection of children at risk by means of a self-report questionnaire for measuring childhood anxiety, (2) the identification of children with anxiety disorders, and (3) the cognitive-behavioural treatment of children with anxiety disorders. The protocol was tested in four primary schools in the southern part of The Netherlands. All children ( $N = 425$ ) from grades 5 to 8 completed childhood anxiety questionnaires during regular classes. Six months later, 42 children who were selected on the basis of their elevated anxiety scores were interviewed by a child psychologist using a diagnostic interview instrument to assess anxiety disorders in children. Thirty-six children (85.7%) were found to meet the full criteria for at least one of the major anxiety disorders (i.e., generalised anxiety disorder, separation anxiety disorder, social phobia, or obsessive-compulsive disorder). These children were treated with the *Coping Koala* program, a 12-session cognitive-behavioural treatment. Results showed that the program yielded clinically significant treatment effects in about 75% of the children.

## Selective Intervention — The United States

Cooley-Quille, M., Boyd, R.C., & Grados, J.J. (2004). Feasibility of an anxiety prevention intervention for community violence exposed children. *Journal of Primary Prevention*, 25(1), 105–123.

Investigated the feasibility of using an anxiety preventative intervention efficacious with Australian children with at-risk inner-city African Americans (aged 10–11) who experienced moderate anxiety problems and community violence exposure. Of 91 5th-grade students, 10 participated in the school-based selective intervention that targeted anxiety disorders. Pre and post-intervention analyses revealed significant decreases in general anxiety and manifestations of anxiety that were contextually relevant to the community violence–exposed youth (i.e., physiological symptoms, worry regarding environmental pressures, and concentration difficulties). The discussion focuses on the modifications necessary to make the prevention program culturally and contextually appropriate for anxious inner-city African-American children.

## School-based Intervention — The United States

Bernstein, G.A., Layne, A.E., Egan, E.A., & Tennison, D.M. (2005). School-based interventions for anxious children. *Journal of American Academy of Child and Adolescent Psychiatry*, 44(11), 1118–1127.

*Objective:* To compare the effectiveness of three school-based interventions for anxious children: group cognitive-behavioral therapy (CBT) for children, group CBT for children plus parent training group, and no-treatment control. *Method:* Students (7–11 years old) in three elementary schools ( $N = 453$ ) were screened using the Multidimensional Anxiety Scale for Children and teacher nomination. Subsequently, 101 identified children and their parents completed the Anxiety Disorders Interview Schedule for DSM-IV, Child Version. Children with features or DSM-IV diagnoses of separation anxiety disorder, generalized anxiety disorder, and/or social phobia ( $n = 61$ ) were randomized by school to one of three conditions. Active treatments were nine weekly sessions of either group CBT or group CBT plus concurrent parent training. *Results:* Clinician-report, child-report, and parent-report measures of child anxiety demonstrated significant benefits of CBT treatments over the no-treatment control group. Effect size was 0.58 for change in composite clinician severity rating, the primary outcome measure, favoring collapsed CBT conditions compared with control. In addition, several instruments showed significantly greater improvement in child anxiety for group CBT plus parent training over group CBT alone. *Conclusions:* Both active CBT treatments were more effective than the no-treatment control condition in decreasing child anxiety symptoms and associated impairment. When parent training was combined with child group CBT, there were some additional benefits for the children.

## Universal School-based Intervention — Germany

Conradt, J., & Essau, C.A. (2003, July). Feasibility and efficacy of the FRIENDS program for the prevention of anxiety in children. Paper presented at the 24th International Conference: Stress and Anxiety Research Society, Lisbon.

The *FRIENDS* program, originally developed in Australia, is a universal, school-based intervention designed to prevent the onset of anxiety and depression among children through the building of emotional resilience. The main aims of the present

study were (a) to examine the feasibility of the *FRIENDS* program as a universal school-based prevention trial in Germany and (b) to examine the efficacy of the *FRIENDS* program in reducing anxiety symptoms. A total of 200 primary-school children, age of 9 to 12 years, participated in the 10-session group training. Parents of these children also participated in a 4-session group training for parents. These children were compared with 200 matched controls. Assessments were completed before and after the program and at 6 and 12-month follow-up. Results showed the *FRIENDS* program to be well-accepted and well-liked by children, their parents and the *FRIENDS* trainers. No specific problems were encountered in using Australian-based animals (e.g., koala). As for the efficacy of the *FRIENDS* program, a pre–post-assessment showed reduction of anxiety symptoms among children in the prevention group, as measured using the Spence Children’s Anxiety Scale. Children who participated in the *FRIENDS* program were more socially competent and used more positive coping strategies at the end of the training compared to children in the control group. To conclude, this study provided support for the feasibility and efficacy of the *FRIENDS* program in children in Germany.

## Social Validity Evaluation — Germany

Essau CA, Conrath J, Ederer EM. (2004). *Versicherungsmedizin*. Anxiety prevention among schoolchildren [article in German], 56(3),123–30.

The *FRIENDS* program is a prevention and early intervention program, which teaches children strategies to cope with anxiety and challenging situations. This paper examines the social validity of the German version of the *FRIENDS* program using data from a large-scale study on the prevention of anxiety disorders in schoolchildren, which is funded by the Dr. Karl-Wilder Stiftung. In this paper, data of 208 schoolchildren (aged 9 to 12 years) are used. Results show that the children and their parents were highly satisfied with the *FRIENDS* program. Children’s attendance and completion of their homework assignments were very high. Both the children and their parents rated relaxation exercises and thinking helpful thoughts as being more useful for the children than other skills. Treatment acceptability correlated significantly with the children’s clinical outcome. The implications of our findings for future research are discussed.

## Universal School-based Prevention — Canada

VP3: Vancouver Primary Prevention Project (Anxiety disorders prevention in school children). Commenced 2003. Researchers: Lyn Miller, University of British Columbia and Maureen Whittal, University of British Columbia Hospital. Jane Garland, British Columbia’s Children’s Hospital and Sandra Clark, British Columbia’s Children’s Hospital.

Will ascertain the efficacy of a brief cognitive-behavioural treatment program (*FRIENDS*) delivered by school personnel, and determine the stability of treatment effects. The study will also establish if parental involvement improves efficacy and/or longevity of treatment gains. The primary goal is to reduce anxiety-disordered behaviour and thinking patterns in West Vancouver public-school children. The 10 West Vancouver elementary schools (District 45) will screen all grade 4 children for anxiety using the Multidimensional Anxiety Screen for Children (MASC), and Achenbach’s Child Behaviour Checklist (CBCL) to identify children with symptoms of anxiety. All children will be randomly assigned to one of two treatment conditions in the late spring: cognitive behaviour therapy (CBT) or an attention control

procedure (storytelling). Treatment will be delivered in intact classrooms of children over 10 weekly 1-hour sessions at the school site. A trained school staff member and a trained counselling or psychology graduate student will co-lead groups. Students who were originally assigned to the control procedure will subsequently receive the active treatment (CBT) in the early fall, forming a delayed treatment group. The effect of parental involvement in treatment will be studied. Parents of children in treatment will be randomly assigned to either the experimental condition (three 2-hour educational sessions concurrent with child treatment designed to give information on anxiety disorders and the parents' role in helping to maintain healthy behaviour) or to a control condition involving a 1-hour overview of the treatment program. Year 2 will feature evaluation of all children at follow-up.

## Pilot School-based Study — United Kingdom

Taylor, V.M., & Stanley, A. (2002). Promoting children's mental health within educational settings: A case-study using the FRIENDS programme.

Anxiety is one of the most prevalent mental-health disorders experienced by school-aged children. This article describes a case study which examines the effectiveness of using *FRIENDS*, an Australian school-based anxiety-prevention program, with a small group of at-risk junior-school children. A pre-experimental design was used and comparison between pre and posttest questionnaire scores indicated a significant reduction in self-reported anxiety scores. The evidence suggests that schools in the United Kingdom may be effective vehicles for universal early intervention and prevention of childhood anxiety problems and for promoting the mental health of all children.

## Universal School-based Prevention — United Kingdom

Stallard, P., Simpson, N., Anderson, S., Carter, T., Osborn, C., & Bush, S. (2005) An Evaluation of the FRIENDS programme: A Cognitive Behavior Therapy Intervention to Promote Emotional Resilience. *Archives of Disease in Childhood*, 90, 1016–1019.

This was an evaluation of the first UK trial of the FRIENDS preventative programme delivered by school nurses to junior school children in a local authority in South-West England. The objective was to evaluate the efficacy and acceptability of FRIENDS using an uncontrolled study with before and after assessment. A total of 6 primary schools and 213 children aged 9 to 10 years undertook the FRIENDS programme, a 10-session cognitive behaviour therapy programme. Main outcome measures used were the Spence Children's Anxiety Scale, Culture free self-esteem questionnaire, and a qualitative assessment of acceptability. Results were that at the end of the programme data from 197 children (92.5% of eligible sample) showed significantly lower rates of anxiety ( $t = 2.95$ ,  $df = 384$ ,  $p = 0.003$ ) and significantly improved levels of self-esteem ( $t = 3.13$ ,  $df = 386$ ,  $p = 0.002$ ). Significant improvements were obtained in over half of those children with the most severe emotional problems. On the qualitative assessment, 190 children (89.2%) completed a qualitative assessment of acceptability and 154 (81.1%) 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. In conclusion, 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.

## Cost of Universal School-based Intervention — United Kingdom

Stallard, P., Simpson, N., Anderson, S., Carter, T., Osborne, C., & Bush, S. (2005). *An evaluation of costs of the FRIENDS program: A cognitive behaviour therapy intervention to promote emotional resilience*. Unpublished manuscript.

The objective of this study was to estimate a cost of the *FRIENDS* program when used in an uncontrolled before and after assessment design across six primary schools, covering a total of 213 children aged 9 to 10 years. The cost per child to deliver the 10-session program from NHS's perspective is £34.46 (£49.74 of proportion of start up and supervision costs included) in term 1 and reduces to £24.00 (£24.34 if proportion of supervision costs only included) in term 2.

## Universal Prevention with Former-Yugoslavian Refugee Children in Australia

Barrett, P.M., Moore, A.F., & Sonderegger, R. (2000). The *FRIENDS* program for young former-Yugoslavian refugees in Australia: A pilot study. *Behaviour Change*, 17, 124–133.

Young immigrants frequently experience anxiety as a consequence of the stress associated with migration. Despite being at high risk for the development of psychopathology, culturally sensitive assessment and intervention procedures for use with ethnic minority groups residing in Australia have yet to be developed and validated. The aims of the current study were to (1) investigate the level of anxiety in a sample of former-Yugoslavian teenage refugees; (2) appraise the efficacy of the *FRIENDS* program, a validated Anglo-Australian anxiety-prevention program, for use with this high-risk group; and (3) obtain information from both the program participants and facilitators regarding how the intervention could be modified to better meet the needs of this growing refugee population in Australia. Twenty female former-Yugoslavian youths completed standardised measures of internalising symptoms. Participants were allocated to either an intervention ( $n = 9$ ) or a waitlist ( $n = 11$ ) condition. In spite of the small sample size, post-assessment indicated that participants in the intervention condition reported significantly less internalising symptoms than participants in the waitlist condition. Social-validity data indicated that overall, participants were highly satisfied with the intervention. Suggestions for assessment and treatment program modifications are discussed.

## Social-validity Evaluation

Barrett, P.M., Shortt, A.L., Fox T.L., & Wescombe, K. (2001). Examining the social validity of the *FRIENDS* treatment program for anxious children. *Behaviour Change*, 18, 63–77.

This study conducted the first evaluation of elements of social validity of the *FRIENDS* program, a cognitive-behavioural treatment package for childhood anxiety disorders. Parents, children and adolescents were surveyed over time on their global satisfaction with the program, the acceptability of treatment components, and the completion of homework tasks. Results indicated a high level of satisfaction with the *FRIENDS* program and a high completion rate of homework tasks. Contrary to expectations, children rated the cognitive skills more useful than adolescents. Adolescents reported the behavioural strategy of graded exposure as more useful than

other strategies. In addition, the relationship between treatment acceptability and clinical outcome was not significant. Limitations of the study and directions for further research are discussed.

## Universal Prevention with Children in Australia of Former-Yugoslavian, Chinese, and Mixed-ethnic Backgrounds

Barrett, P.M., Sonderegger, R., & Sonderegger, N.L. (2001). Evaluation of an anxiety-prevention and positive-coping program (*FRIENDS*) for children and adolescents of non-English speaking background. *Behaviour Change*, 18, 78–91.

This study aimed to (a) appraise the efficacy of a well-validated Anglo-Australian anxiety-prevention and stress-resiliency program (*FRIENDS*) for used with culturally diverse migrant groups residing in Australia, (b) examine the social validity of *FRIENDS*, and (c) obtain information from participants and facilitators regarding how the program can best be modified for specific use with non-English speaking background (NESB) clients. To test the efficacy of the intervention, pre and post-intervention evaluation of internalising symptoms and coping ability were compared with waiting list control groups (matched according to ethnic group, gender and school level). One hundred and six primary and 98 high-school students differentiated by cultural origin (former-Yugoslavian, Chinese and mixed-ethnic) and school level (primary and high school) completed standardised measures of internalising symptoms and were allocated to either an intervention ( $n = 121$ ) or a waiting-list ( $n = 83$ ) condition. Both groups were readministered the assessment package for comparison following a 10-week treatment or waiting period. Consistent with a recent pilot study, pre/post-assessment indicated that participants in the intervention condition exhibited lower anxiety and a more positive future outlook than waiting-list participants. Participating students reported to be highly satisfied with the intervention. Despite the overall success of *FRIENDS*, the program may be enhanced by culturally sensitive supplements so that the program is more applicable for use with NESB participants. Suggestions for treatment program modifications of *FRIENDS* are discussed.

## Universal Prevention with Children in Australia of Former-Yugoslavian, Chinese, and Mixed-ethnic Backgrounds Six-month Follow-up

Barrett, P.M., Sonderegger, R., & Xenos, S. (2003). Using *FRIENDS* to combat anxiety and adjustment problems among young migrants to Australia: A national trial. *Clinical Child Psychology and Psychiatry*, 8(2), 241–260.

The primary objectives of this study were (a) to evaluate the capacity of a well-validated anxiety-prevention and emotional-resiliency program (*FRIENDS*) to reduce psychological distress in young culturally diverse migrants of non-English speaking background (NESB), and (b) to determine whether any change in psychological symptoms and emotional resilience would be maintained over time. Three hundred and twenty-four students differentiated by cultural origin (former-Yugoslavian, Chinese and mixed-ethnic) and educational level (elementary and high school) were recruited from different Australian states and allocated to either an intervention or waitlist condition. All students completed standardised measures of self-esteem, internalising symptoms and future outlook both before and after a 10-week *FRIENDS* intervention or wait period. One hundred and thirty-nine participants from Queensland were also assessed 6 months following the completion of the *FRIENDS*

program to determine its long-term effects. Consistent with previous trials involving culturally diverse populations, NESB participants who underwent *FRIENDS* training exhibited significantly greater self-esteem, few internalising symptoms, and a less-pessimistic future outlook than waitlist participants at both post and 6-months follow-up assessment intervals. This study provides empirical evidence for the utility of the *FRIENDS* program as a resource for therapists and schools working with young culturally diverse migrant populations.