Exploring the Effectiveness of the FRIENDS Program in Reducing Anxiety Symptoms Among South African Children

Jemona Mostert and Helene Loxton

Stellenbosch University, South Africa

The prevalence of anxiety symptoms among South African children is reported to be significantly higher than in other parts of the world. The need for an effective anxiety prevention and early intervention program for use with South African children is urgently needed. The aim of the present study was therefore to determine whether the Australian FRIENDS program could effectively reduce the anxiety symptoms, as measured by the Spence Children's Anxiety scale (SCAS), among a sample of South African children from low socioeconomic background. The program evaluation employed a quasi-experimental, nonequivalent control group design that followed participants ($N = 46$) over a course of 10 months. Within group effects and between group effects revealed that the FRIENDS program had little statistically significant postintervention effect on the anxiety symptoms of this sample, but had significant effects in the longer term, at 4 months and 6 months follow-up. The implications of these results for the South African context are discussed.

■ *Keywords:* anxiety; prevention; program evaluation; South African children

Introduction

Anxiety disorders are one of the most prevalent psychological disorders globally (Stein, 2004). Anxiety refers to a vague feeling of uneasiness accompanied by physical symptoms such as dizziness, sweating, palpitations and tremours (Sadock & Sadock, 2003) in the absence of objective danger. In South Africa prevalence rates of anxiety disorders among children are high. For example, Perold (2001) reported a prevalence of childhood anxiety symptoms between 22% and 25.6% among 7-year-old to 13-year-old old children in the Western Cape. Studies conducted in the United States of America report much lower rates of anxiety disorders. For example, Bell-Dolan, Last and Strauss (1990) reported a prevalence rate of about 10%, while Kashani and Orvaschel (1990) reported a prevalence rate of 13.8% (parent report) and 21% (child report). In South Africa, studies suggest that children from lower socioeconomic backgrounds have significantly more anxiety symptoms compared to children from higher socioeconomic backgrounds (Muris, Schmidt, Engelbrecht, & Perold, 2002; Perold, 2001), and that Coloured[1] and Black children have significantly more anxiety

85

symptoms (Muris et al., 2006; Muris, Schmidt, et al., 2002) and childhood fears (Burkhardt, Loxton, & Muris, 2003) than do white children.

Within a Primary Health Care Model, the South African Government promotes prevention as an important strategy to enhance the mental and physical health of the nation (Department of Health, 1997). According to Hirshfeld-Becker and Biederman (2002) anxiety prevention programs for young children can operate to help them gain the necessary skills to cope with anxiety at later points in their lives, thus preventing the onset of a disorder. These authors also state that replacing maladaptive with adaptive behaviours and coping in young children, is much easier to accomplish than in older children or adults. This emphasises the need for early interventions for childhood anxiety.

The FRIENDS program (Barrett, 2004) is an Australian cognitive behaviour therapy (CBT)-based early intervention and prevention program for childhood anxiety and depression, which has recently been endorsed by the World Health Organization (WHO; WHO, 2004). In Australia, the FRIENDS program has been effectively implemented as a family-based group CBT (Shortt, Barrett, & Fox, 2001), and has also proved to be successful with children from non-Australian backgrounds (Barrett, Moore, & Sonderegger, 2000; Barrett, Sonderegger, & Sonderegger, 2001). The short- and long-term effectiveness of the FRIENDS program within school settings has also been explored.

Barrett and Turner (2001) investigated the effectiveness of the program when implemented as a school-based intervention. In this study, participants were classified as either 'at risk' or 'healthy' and then assigned to one of three treatment conditions: two intervention conditions (one conducted by a psychologist (n = 188), and one conducted by a teacher (n = 263)), and a nonintervention, monitoring condition (n = 137). Results indicated statistically significant reductions in anxiety symptoms among the children in both intervention conditions compared to the children in the monitoring condition. At postintervention, 'at risk' children in the intervention conditions were more likely to have moved into the 'healthy' range compared to 'at risk' children in the monitoring condition.

In another investigation, Lowry-Webster, Barrett, and Dadds (2001) studied the effectiveness of the FRIENDS program by implementing it as part of the school curriculum among 594 children. It was assessed by comparing children in schools where the intervention was implemented to children in schools where it was not implemented. Based on anxiety scores, as measured by the Spence Children's Anxiety scale (SCAS), the Revised Children's Manifest Anxiety scale (RCMAS) and the Children's Depression Inventory (CDI), children were classified as either *at risk* or *not at risk*. Although the children's anxiety scores improved significantly from pretest to posttest, irrespective of whether they had received the intervention or not, the improvement was greater among children who had received the intervention. At posttest, 75.3% of at risk children who had received the intervention were no longer at risk, compared to 42.2% of at risk children who had not received the intervention. At one year follow-up, the anxiety scores among children who had received the intervention remained significantly lower than the scores among the children who had not received the intervention. Furthermore, a comparison of the anxiety scores at posttest and at follow-up among the children who had received the intervention, showed a further significant decrease in anxiety scores from posttest to follow-up. (Lowry-Webster, Barrett, & Lock, 2003).

Despite a number of South African studies on childhood anxiety, there are no evaluated, effective prevention and early intervention programs for South African

children. (Loxton, 2004). The current study sought to fill this important gap by implementing, and empirically evaluating the effectiveness of an existing anxiety prevention program, FRIENDS, among South African children.

Method

Research Design

Quasi-experimental designs are commonly used for the purposes of program evaluation whenever situational constraints prevent the use of experimental designs (Graziano & Raulin, 2004). Since situational constraints prevented the random assignment of participants to either a control or experimental condition, the present program evaluation employed a quasi-experimental, nonequivalent control group design. Children from one Grade 6 school class were assigned to the intervention condition, while children from another Grade 6 class in the same school were assigned to the control condition. Children in the control condition received the intervention after those in the intervention condition.

Sampling

From the population of 12-year-old school children in South Africa, a convenience sample of children from two Grade 6 classes in one school were selected to participate in the study. When ad hoc samples such as these are used, generalisations should be made with caution (Graziano & Raulin, 2004).

Research Participants

A total of 66 Grade 6, 12-year-old children (30 girls and 36 boys) were recruited to participate in the study that followed them over a course of 10 months. The school is in Stellenbosch, a peri-urban town approximately 50 kilometres outside Cape Town, South Africa, with a population density of approximately 120 people per square kilometre (Statistics South Africa, 2001). On the basis of household income, the community from which the participants were selected is characterised as having predominantly low socioeconomic status, (Raubenheimer, Vorster, Rossouw, Muller, & Lotz, 1995). Most members of the community are Coloured and Afrikaans-speaking.

In the participating school, one Grade 6 class (*n* = 32; 14 girls and 18 boys) comprised the intervention group (IG), and another Grade 6 class comprised the control group (CG) (*n* = 34; 16 girls and 18 boys). At the time of data analysis, the data for only 46 participants (22 girls and 24 boys) could be used for the following reasons: First, attrition accounted for eight participants' data (four in the IG, and four in the CG). Second, incomplete questionnaire data (participants who were absent during one of the four assessment times) accounted for 11 participants' data (four in the IG, and seven in the CG); and lastly, one participant in the IG did not follow the instructions when filling in the questionnaires. The final sample therefore consisted of 25 participants in the IG (13 boys and 12 girls) and 21 participants in the CG (16 boys, and 5 girls).

Measuring Instrument

The Spence Children's Anxiety scale (SCAS), a 44 item self-report questionnaire (Spence, 1997), was used to assess the anxiety status of participants. Permission to use the SCAS was obtained from the author. In this study, Afrikaans language

TABLE 1

Evaluation Procedure

	Intervention Group (IG)	Control Group (CG)
Time 1	Preintervention assessment	Preintervention assessment
Time 2	Postintervention assessment	Preintervention assessment
Time 3	Four-month postintervention follow-up	Preintervention assessment
Time 4	Six-month postintervention follow-up	Postintervention assessment

versions of the questionnaires were used. The SCAS had been translated and successfully used previously among Afrikaans speaking children (Peroldt, 2001).

The SCAS was developed and designed to measure children's self-reported anxiety symptoms in six domains, namely social phobia, obsessive-compulsive disorder, separation anxiety, generalised anxiety, panic-agoraphobia, and fears of physical injury (Spence, 1997, 1998). The child rates each item on a 4-point Likert scale ranging from 0 = *never* to 3 = *always* (Spence, 1997). The SCAS has demonstrated good internal consistency (α = .92) (Essau, Muris, & Ederer, 2002; Spence, 1998), and prior use in a South African sample also yielded an alpha value of .92 (Muris, Merckelbach, et al., 2002). It has demonstrated good convergent validity (Spence, 1998; Spence, Barrett, & Turner, 2003), and has also shown to be able to discriminate between clinical and nonclinical children (Spence, 1998).

Evaluation Procedure

The anxiety symptoms of participants in both the IG and the CG (*n* = 46) were assessed on four occasions over a period of 10 months. Table 1 describes the assessments on the different occasions for each of the two groups.

Intervention

The FRIENDS program (Barrett, 2004) is a CBT-based early intervention and prevention program for anxiety and depression, designed for children between the ages of 7 years and 11 years. The program addresses all three aspects of anxiety, namely cognitive aspects, physiological aspects, and behavioural aspects. The FRIENDS program consists of 10 weekly sessions, during which children are involved in activities aimed at teaching them coping skills and problem solving techniques, thereby helping them deal more effectively with anxiety. Two booster sessions are conducted 1 month and 3 months after the completion of the program. The program also contains four sessions that are conducted with parents (Barrett, 2004). Owing to situational constraints, the present study consisted of the ten children's sessions only; the booster and parent sessions were excluded. Also, the present study focused on anxiety only, and excluded depression.

88

Data Collection Procedures

Permission to conduct the study was obtained from the Department of Education. After the school consented to the study, a letter describing the study, and an informed consent form was sent to parents of the children in the participating school. The study commenced by determining the anxiety status of all participants (*n* = 66) at Time 1. The SCAS questionnaire was read aloud in an attempt to

ensure that participants understood the questions correctly. An independent observer was present during all testing procedures. Afterwards, the researcher scored all questionnaires, after which the scoring was moderated by an independent rater.

After negotiating a suitable time with the school, the intervention with the IG was conducted during two hour-long sessions on consecutive days per week. During these sessions an independent observer was present. All sessions were implemented according to the FRIENDS manual (Barrett, 2004). At Time 2, once the FRIENDS program had been completed with the IG, the anxiety status of all participants (n = 66) was reassessed. The testing and checking procedures occurred similarly to those at Time 1.

At Time 3, after a period of 4 months the anxiety status of all participants (n = 66) was reassessed. The testing and checking procedures occurred similarly to those at Time 1 and Time 2.

After Time 3, the intervention with the CG (n = 34) was implemented during two hour-long periods, on two alternate days per week. Sessions with the CG were conducted in a similar fashion to those conducted with the IG.

At Time 4 (that in effect was at 6-month follow-up for the IG and postintervention for the CG) the anxiety status of all participants (n = 66) was again assessed in the same way that all the previous assessments had been conducted.

Data Analysis

Data was analysed using the Statistical Package for Social Sciences (SPSS). Within group effects were explored using a repeated measures ANOVA to determine each group's change in anxiety symptoms over time. Between group effects were explored using a one-way ANOVA to determine the differences between the IG and CG's anxiety symptoms at each of the four times. A Bonferonni adjustment was made to control for the increased possibility of making a Type 1 error. A Guttman split-half analysis was used to determine the reliability of the SCAS with the current sample.

Ethical Issues

Ethical approval for the study was gained from the Ethics Committee, Faculty of Health Sciences of the University of Stellenbosch. It was felt that witholding the intervention from the CG was unethical, and this group of children therefore received the intervention after it had been implemented with the IG.

Results

Reliability of the SCAS

A Guttman split-half analysis of the SCAS yielded a value of .08, which attests to good internal consistency.

Descriptive Analysis

Age

As the literature suggests that the number and content of anxiety symptoms varies with age (Bell-Dolan et al., 1990; Essau, Sakano, Ishikawa, & Sasagawa, 2004; Kashani & Orvaschel, 1990; Muris, Schmidt, et al., 2002), possible age differences between the IG and CG were explored.

At the commencement of the study, the mean age of the participants from both groups (n = 66) was 12 years and 6 months. Results revealed that there was

89

TABLE 2

Mean Scores and Standard Deviations (*SD*) on the Spence Children's Anxiety Scale
(SCAS) at Each Time Point

Testing	Mean SCAS scores (standard deviations)	
	Intervention group (IG) (*n* = 25)	Control group (CG) (*n* = 21)
Time 1	42.12 (15.82)	40.14 (12.42)
Time 2	37.48 (16.26)	38.05 (12.72)
Time 3	32.48 (12.28)	38.38 (15.58)
Time 4	31.64 (16.61)	33.71 (16.24)

no significant difference in the mean ages of those children in the IG and those in the
CG (*p* = .82), and no significant difference in age between boys and girls (*p* = .10). As
no age difference between these groups was detected, age was eliminated as a possible
confounding variable in the variance of anxiety scores.

Gender

As the literature indicates that girls tend to report more anxiety symptoms than
boys (Bell-Dolan et al., 1990; Essau et al., 2004; Kashani & Orvaschel, 1990; Muris,
Schmidt, et al., 2002; Perold, 2001), possible gender differences between the IG and
CG was explored.

Although the IG (12 girls and 13 boys) and CG (5 girls and 16 boys) apparently
differed with regard to gender composition, a chi-square analysis indicated that this
difference was not statistically significant (*p* = .09). Results further indicated a non-
significant effect for gender on anxiety symptoms (F (3) = 0.49, *p* = .68). There-
fore, gender was eliminated as a possible confounding variable in the variance of
anxiety scores.

Anxiety scores on the SCAS

Table 2 displays the means and standard deviations of the anxiety symptom scores
over time for the IG (*n* = 25) and the CG (*n* = 21). From Table 2, it is evident that
participants in both the IG and the CG had high scores on the SCAS at Time 1
(preintervention for both IG and CG). Their scores were 42.12 and 40.14 respec-
tively. At Time 4 (6 months postintervention for the IG, and postintervention for
the CG), both groups' scores had decreased (to 31.64 and 33.71 respectively), thus
indicating a decline in SCAS scores over time.

In Figure 1 the mean scores on the SCAS over time are displayed separately for
the IG and the CG. It is evident that both groups had high scores on the SCAS at
Time 1 (preintervention for both groups). Considering the trend of the SCAS
scores for the IG over time only, it can be seen that at Time 2 (immediately after
the intervention) there is a marked reduction in scores on the SCAS. This down-
ward trend persisted to Time 4 (6 months postintervention). Considering the trend
of the SCAS scores over time for the CG it is clear that, contrary to those for the
IG, the scores for the CG remains relatively constant from Time 1 to Time 3.
Then, there was a sharp reduction in scores from Time 3 to Time 4 (immediately
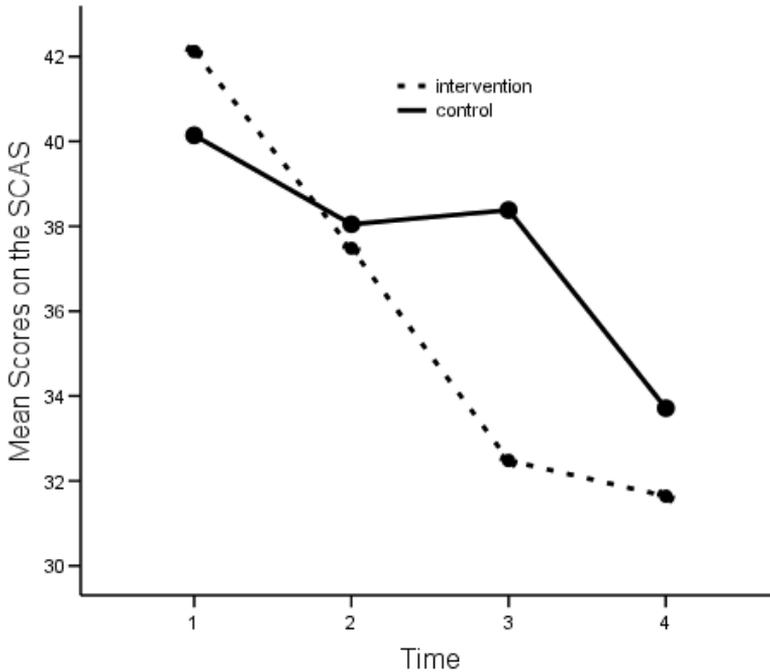after the intervention).

FIGURE 1

Mean scores on the Spence Children's Anxiety scale (SCAS) for the intervention group (IG) and the control group (CG) over time.

Within Group Effects

For the IG, the Repeated Measures ANOVA yielded a significant result for time, $F(3) = 11.46$, $p = 0$. Thus, there was a significant change in the IG's scores on the SCAS over time. Bonferonni post hoc tests revealed a statistically significant difference in scores between Time 1 (preintervention) and Time 3 (4 months postintervention), $p = 0$, and between Time 1 and Time 4 (6 months postintervention), $p = 0$. However, there was no statistically significant decline in scores from Time 1 to Time 2 (immediately after the intervention), $p = .08$. These results indicate that the decline in scores on the SCAS did not become statistically significant until 4 months postintervention.

For the CG, the Repeated Measures ANOVA yielded a nonsignificant effect for time, $F(3) = 1.52$, $p = .22$, indicating that the decline in scores over time on the SCAS for this group, was not statistically significant.

Between Group Effects

At Time 1, the commencement of the study and preintervention for both the IG and the CG, there was no significant difference between the two groups' SCAS scores, $F(1,44) = 0.22$, $p = 1.00$.

At Time 2 (postintervention for the IG, and preintervention for the CG), there was no significant difference between the two groups' SCAS scores, $F(1,44) = 0.02$, $p = 1.00$.

91

At Time 3 (4 months postintervention for the IG, and preintervention for the CG), there was no significant difference between the two groups' SCAS scores, $F(1.44) = 2.06$, $p = .63$.

At Time 4, there was no significant difference in the SCAS scores between the IG (6 months postintervention) and the CG (immediately after intervention), $F(1.44) = 0.18$, $p = 1.00$.

Discussion

Anxiety Scores on the SCAS

At Time 1 (preintervention for the IG and the CG) in the present study, participants reported high levels of anxiety symptoms. This finding is consistent with the high prevalence of anxiety symptoms found among children in other South African studies (Muris, Schmidt, et al., 2002; Perold, 2001). Furthermore, anxiety scores in the present study were higher than similar Australian-based studies, where scores in intervention and control conditions were 26.76 and 27.44 respectively (Barrett & Turner, 2001), and 30.64 and 39.89 respectively (Barrett et al., 2000) at preintervention. The fact that the sample were Coloured and from a lower socioeconomic background, confirm the findings of other South African studies pointing towards the tendency that these children show higher rates of anxiety than their peers from predominantly White communities and a higher socioeconomic status background (Burkhardt et al., 2003; Muris, Schmidt, et al., 2002; Peroldt, 2001).

Main Analysis

Within Group Effects

Among the children in the IG, the significant decline in anxiety symptoms over time, from preintervention to 6-month follow-up, was in keeping with what was expected. More specifically, the decline in anxiety symptoms was significant from pretest (Time 1) to 4-month follow-up (Time 3), and from pretest (Time 1) to 6-month follow-up (Time 4). This finding is in keeping with previous follow-up studies where it was found that anxiety symptoms among children in an intervention condition continued improving over time, following the intervention (Lowry-Webster et al., 2003; Shortt et al., 2001).

However, unexpectedly, the decline in anxiety symptoms from preintervention (Time 1) to postintervention (Time 2) was not statistically significant, which suggests that among this study's IG the intervention had little immediate effect, but only became effective in reducing anxiety symptoms after a period of time.

The same nonsignificant decline in SCAS scores from preintervention (Times 1 through 3) to postintervention (Time 4) among the children in the CG, was also found. These finding are contrary to those from a similar study where a significant decline in anxiety symptoms was found from pretest to posttest for participants in the intervention condition (Barrett & Turner, 2001). As the study design did not allow for 4- and 6-month follow-up assessments for children in the CG, one cannot assume that they would have experienced significant declines in scores at these times, similar to the children in the IG.

It is possible that this study's small sample size, with resultant reduced statistical power (Graziano & Raulin, 2004), contributed to the nonsignificant difference in SCAS scores from preintervention to postintervention for both groups. Yet, the general trend in scores over time, as was evident from Figure 1, demonstrated that

both groups experienced sharp declines in anxiety scores, albeit not statistically significant, from preintervention to postintervention. From this it would appear that participants' scores lowered in direct response to the intervention.

Between Group Effects

At Time 1 it was found that the IG and CG did not differ significantly from each other with regard to anxiety symptoms at the onset of the study. The nonsignificant difference between the two groups at Time 2 was contrary to what was expected, since the children in the IG had already received the intervention and were expected therefore to have significantly lower anxiety scores than the children in the CG. This finding is contrary to that found in other studies, where a significant difference between the intervention group and waitlist-control group was reported postintervention (Barrett & Turner, 2001; Lowry-Webster et al., 2001; Shortt et al., 2001).

Contrary to expectations, results at Time 3 indicated a nonsignificant difference in SCAS scores between the children in the IG and those in the CG. Time 3 was the 4-month follow-up assessment for the IG, and the third preintervention assessment for the CG, and we expected the IG's scores to be significantly lower than those for the CG. This finding is contrary to other studies that found that treatment outcomes were consistently maintained at follow-up (Lowry-Webster et al., 2003; Shortt et al., 2001). However, in the present study the nonsignificant differences in SCAS scores between the two groups at Time 3 might be attributed to the small sample size.

At Time 4, the nonsignificant difference in the SCAS scores between the IG and CG was in keeping with what was expected, since both groups had received the intervention by then. This finding does not, however, imply that the nonsignificant difference between the two groups could be attributed to the intervention, as no significant difference in the SCAS scores was found between the IG and the CG at the previous three study times.

Conclusion

The following conclusions can be draw from this study's findings. Among those children in the IG, the effect of the FRIENDS program on their anxiety symptoms became statistically significant over time. However, the decline in anxiety symptoms for the children in the CG pre and post intervention were not statistically significant. Given the findings for the IG, it is possible that the effect of the FRIENDS program on the CG would become statistically significant over time. The finding that the program effects only become apparent at follow-up may be attributed to the FRIENDS program teaching children the necessary coping and problem solving skills for dealing effectively with anxiety. It is possible that only once children become more accomplished at using these skills will they become effective in reducing their anxiety symptoms. In this regard, a questionnaire measuring coping abilities, in addition to the SCAS, could have proven useful, as this would have shed light on the change in the participants' ability to cope with stressful situations. Yet, it appears that the FRIENDS program for the prevention of childhood anxiety is promising among children from low SE backgrounds.

The following limitations should be addressed. Owing to situational constraints, participants could neither be randomly selected, nor randomly assigned to either the

IG or CG, therefore generalisations should be made with caution. The small sample size of the present study is another important limitation that has been addressed earlier. Participants in the present study come from a particular racial and socioeconomic background and generalisations are therefore limited to similar populations. Finally, it is possible that the exclusion of the parental sessions and the booster sessions with this study's children could have reduced the effect of the intervention effect and lessened its outcomes.

Future research should also consider the following recommendations. Research should target samples of children who are more representative of the broader South African context. In addition, as self-report measures are not without their limitations (Kendall & Chansky quoted in Ronan, 1996), future research should consider incorporating the use of more objective screening methods, such as clinical interviews, or projective screening methods. Lastly, the unique challenges that the South African context poses to children growing up in this country (such as violence and economic hardship) should not be ignored. As children do not function in isolation from their ecological environments (Bronfenbrenner, 1979), research should consider incorporating environmental aspects into an intervention program relevant to the South African context.

Acknowledgements

Endnote

1   Reference to race is controversial. However, in the current study it is not meant to be discriminatory in any way, but should be understood as referring to certain cultural groups existing in South Africa. In South Africa the term 'Coloured' refers to people who descend from multiple Asian, European, or African ancestries.

References

Barrett, P.M. (2004). *FRIENDS for life: Group leaders' manual*. Brisbane, Australia: Australian Academic Press.

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*(3), 124–133.

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 backgrounds. *Behaviour Change, 18*(2), 78–91.

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

Bell-Dolan, D.J., Last, C.G., & Strauss, C.C. (1990). Symptoms of anxiety disorders in normal children. *Journal of the American Academy of Child and Adolescent Psychiatry, 29*(5), 759–765.

Bronfenbrenner, U. (1979). *The ecology of human development: Experiments by nature and design*. Cambridge: Harvard University Press.

Burkhardt, K., Loxton, H.S., & Muris, P. (2003). Fears and fearfulness in South-African children. *Behaviour Change, 20*(2), 94–102.

Department of Health. (1997). *White paper for the transformation of the health system in South Africa.* Retrieved March 28, 2006, from http://www.info.gov.za/whitepapers/1997/health.html.

Essau, C.A., Muris, P., & Ederer, E.M. (2002). Reliability and validity of the Spence children's anxiety scale and the screen for child anxiety related emotional disorders in German children. *Journal of Behaviour Therapy and Experimental Psychiatry, 33,* 1–18.

Essau, C.A., Sakano, Y., Ishikawa, S., & Sasagawa, S. (2004). Anxiety symptoms in Japanese and German children. *Behaviour Research and Therapy, 42,* 601–612.

Graziano, A.M., & Raulin, M.L. (2004). *Research methods: A process of inquiry* (5th edn). New York: Pearson.

Hirshfeld-Becker, D.R., & Biederman, J. (2002). Rationale and principles for early intervention with young children at risk for anxiety disorders. *Clinical Child and Family Psychology Review, 5*(3), 161–172.

Kashani, J.H., & Orvaschel, H. (1990). A community study of anxiety in children and adolescents. *American Journal of Psychiatry, 143*(3), 313–318.

Lowry-Webster, H.M., Barrett, P.M., & Dadds, M.R. (2001). A universal prevention trial of anxiety and depressive symptomology in childhood: Preliminary data from an Australian study. *Behaviour Change, 18*(1), 36–50.

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

Loxton, H.S. (2004). *Expressed fears and coping mechanisms of a selected group of preschool children.* Unpublished doctoral dissertation, University of Stellenbosch.

Muris, P., Loxton, H., Neumann, A., du Plessis, M., King, N., & Ollendick, T. (2006). DSM-defined anxiety disorders symptoms in South African youths: Their assessment and relationship with perceived parental rearing behaviours. *Behaviour Research and Therapy, 44,* 883–896.

Muris, P., Merckelbach, H., Ollendick, T., King, N., & Bogie, N. (2002). Three traditional and three new childhood anxiety questionnaires: Their reliability and validity in a normal adolescent sample. *Behaviour Research and Therapy, 40,* 753–772.

Muris, P., Schmidt, H., Engelbrecht, P., & Perold, M. (2002). DSM-IV defined anxiety disorder symptoms in South African children. *Journal of the American Academy of Child and Adolescent Psychiatry, 41,* 1360–1368.

Perold, M.D. (2001). *The prevalence of anxiety in a group of 7 to 13 year old learners in the Western Cape.* Unpublished master's thesis, University of Stellenbosh.

Raubenheimer, L.P., Vorster, J.H., Rossouw, H.M., Muller, G.J., & Lotz, S. (1995). *Sosiaal-ekonomiese kenmerke van inwoners van die groter Stellenbosch gebied.* Universiteit van Stellenbosch: Departement Sosiologie.

Ronan, K.R. (1996). Building a reasonable bridge in childhood anxiety assessment: A practitioner's research guide. *Cognitive and Behavioral Practice, 3,* 63–90.

Sadock, B.J., & Sadock, V.A. (2003). *Kaplan and Sadock's synopsis of psychiatry* (9th ed.). New York: Lippincot Williams and Wilkens.

Shortt, A.L., Barrett, P.M., & Fox, T. (2001). Evaluating the FRIENDS program: A cognitive-behavioural group treatment for anxious children and their parents. *Journal of Clinical Child Psychology, 30*(4), 525–535.

Spence, S.H. (1997). Structure of anxiety symptoms among children: A confirmatory factor analytic study. *Journal of Abnormal Psychology, 106*(2), 280–297.

Spence, S.H. (1998). A measure of anxiety symptoms among children. *Behaviour Research and Therapy, 36,* 545–566.

Spence, S.H., Barrett, P.M., & Turner, C.M. (2003). Psychometric properties of the Spence children's anxiety scale with young adolescents. *Anxiety Disorders, 17,* 605–625.

Statistics South Africa. (2001). Key Municipal Data. Retrieved March 28, 2006, from http://www.statssa.gov.za

95

Stein, D.J. (2004). Introduction. In D.J. Stein (Ed.), *Clinical manual of anxiety disorders* (pp. 1–12). Washington: American Psychiatric Publishing.

World Health Organization (WHO). (2004). *Prevention of mental disorders: Effective interventions and policy options*. Geneva: Author.

96