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The *FRIENDS for Life* Program for Mexican Girls Living in an Orphanage: A Pilot Study

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Anxiety and depression are common problems experienced by children and adolescents that, without an effective intervention, can lead to a series of negative consequences. The aim of this study was to evaluate the effectiveness the Spanish version of the *FRIENDS for Life* program (Barrett, 2008a, 2008b), a social and emotional skills program that uses cognitive-behavioural techniques for the prevention and early intervention of anxiety and depression. The program was implemented at the selective level of prevention with girls living at an orphanage in Mexico. Participants received the program for 10 consecutive weeks, and pretest and post-test measures were administered. Measures evaluated participants' anxiety and depressive symptoms and risk status, proactive coping skills, levels of self-concept, self-esteem, and optimism. Social validity was also assessed. Results showed positive changes particularly in optimism and self-concept. Particular items and subscales of the measures also reported statistically significant changes, such as a decrease in worry, physiological symptoms of anxiety, and negative mood, and an increase in self-esteem at home and with peers. Participants evaluated the program as enjoyable and useful. Implications of the findings and further research are discussed.

■ *Keywords:* selective prevention, anxiety, depression, orphanage, resilience

Anxiety disorders are the most prevalent form of psychopathology in childhood and have been associated with depression, deviant conduct and substance abuse (Caraveo-Anduaga & Comenares-Bermúdez, 2002; Costello et al., 2002; Kendall & Suveg, 2006), as well as interference with school, social, and familial functioning (Langley, Bergman, McCracken, & Piacentini, 2004; World Health Organization, 2004). Depressive disorders affect about 2% of children and 4 to 7% of adolescents (Costello et al.) and it is associated with negative long-term psychiatric and functional outcomes (Gladstone & Beardslee, 2009). In addition to the personal suffering experienced by children and families, anxiety and depression also produce an elevated economic cost to society (Gladstone & Beardslee; Neil & Christensen, 2009).

Results from a recent study showed that about 40% of Mexican adolescents, aged 12 to 17, have a mental health disorder, with anxiety disorders being most commonly reported, followed by impulse-control disorders, mood disorders (e.g., depression) and substance abuse (Benjet, Borges, Medina-Mora, Zambrano, & Aguilar-Gaxiola, 2009). Anxiety disorders have also been reported as the most prevalent form of

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psychopathology among Mexican adults, followed by depression and substance abuse (Medina-Mora et al., 2003). However, very few individuals experiencing anxiety or depression are receiving an effective treatment, while many others will terminate therapy prematurely (Benjet et al.; Medina-Mora et al.). Therefore, prevention and early intervention is crucial (Patel, Flisher, Nikapota, & Malhorta, 2008).

Based upon the presence and extent of risk factors related to the development of a disorder, prevention programs have been classified as universal, selective and indicated (Gordon, 1987). Universal interventions are provided to whole populations, regardless of the individual's risk status. Selective interventions are provided to individuals at risk for the development of a disorder and delivered the program in a small-group format, and indicated interventions are for those individuals with symptoms that have not developed into a disorder yet. There is research that indicates that the largest effect sizes in the prevention of anxiety and depression are found when interventions are implemented at the selective or indicated level of prevention (Horowitz & Garber, 2006).

There are several groups of individuals that could be 'at risk' for developing an anxiety disorder or depression: victims of bullying, immigrants from non-English speaking backgrounds, individuals exposed to violence and natural disasters, children with learning disabilities, children from socio-economic disadvantage communities, and orphans, among others (Barrett, Sonderegger, & Xenos, 2003; Cooley-Quille, Boyd, & Grados, 2004; De Rosier, 2004; Johnson, Browne, & Hamilton-Giachritsis, 2006; Gallegos, Langley, & Villegas, 2012; Stopa, Barrett, & Golingi, 2010).

Living in an orphanage has been associated with delays in all areas of development including growth, language, social and emotional, and behavioural among others (Ainsworth, 1965; Ames et al., 1997; Ahmad & Mohamad, 1996; Johnson, 2000; Miller, Chan, Comfort, & Tirella, 2005; Rutter, 1998). Children living in orphanages are more likely to be deprived of touching, smiling, laughing, and exploring with a primary caregiver, and institutionalisation has been linked to a high rate of disorganised attachment and difficulties in developing healthy interpersonal relationships (Johnson, Browne, & Hamilton-Giachritsis, 2006; Rutter, Kreppner, & O'Connor, 2001; Vorria et al., 2003). Therefore, it is likely that orphans will experience social and emotional difficulties that could place them at a higher risk for anxiety and depression (Ainsworth, 1965).

A study by Daunhauer, Bolton, and Cermak (2005) evaluated time-use patterns of children institutionalised in an Eastern European orphanage, and their findings indicated a disruption in the quality of interactions between the caregiver and the child. As orphanages experience frequent change in caregivers, children are exposed to repeated separations that impact their emotional development. This study also reported that children in orphanages have more downtime and less time engaging in social and educational activities, when compared to those children attending childcare in the United States (Daunhauner, Bolton, & Cermak).

In addition, many of the children living in orphanages begin life with multiple developmental challenges, such as being born prematurely, being born with low birthweight, having a mother who lives in poverty, experiencing the interruption of a close caregiver relationship, having poor nutrition, and being a member of a subjugated minority (Daunhauer, Bolton, & Cermak, 2005; Somen, 1986). All of this shows evidence of a high risk for developing mental health problems, such as anxiety and depression.

The *FRIENDS for Life* program (Barrett, 2008a, 2008b) is a prevention and early intervention program for anxiety and depression and has been implemented and evaluated at the three levels of prevention: universal, selective and indicated. Regarding implementation at the selective level, several studies have evaluated its effectiveness to prevent and intervene in the early stages of anxiety and depression through the development of social and emotional skills in children and adolescents. Several studies have implemented the *FRIENDS for Life* program for children and adolescents 'at-risk'. A study with immigrants from non-English speaking backgrounds in Australia reported an increase in participants' proactive coping ability and self-esteem (Barrett, Moore, & Sonderegger, 2000; Barrett, Sonderegger, & Sonderegger, 2001; Barrett et al., 2003). Consistent with these findings, results from studies conducted in the United States with an at-risk group of African American children who have been exposed to community violence reported a decrease in participants' anxiety and life stressors, and a reduction in victimisation by community violence (Cooley-Quille, Boyd, & Grados, 2004; Cooley-Strickland, Griffin, Darney, Otte, & Ko, 2011). Additional benefits were also reported such as an increase in the scores of a standardized academic achievement test for mathematics (Cooley-Strickland, Griffin, Darney, Otte & Ko). There is one recent study by Stopa, Barrett and Golingi (2010) that implemented the *FRIENDS for Life* program as a universal, school-based trial with an at-risk group of children in socioeconomically disadvantaged communities in Australia. Results from this study revealed significant reductions in anxiety and depressive symptomatology, as well as reductions in peer problems and conduct problems and significant improvements in self-esteem and coping strategies (Stopa, Barrett, & Golingi).

While much research into prevention and early intervention for anxiety and depression has been undertaken during the past decade (Gladstone & Beardslee, 2009; Neil & Christensen, 2009), to date there are no studies published in peer-reviewed journals that focus on the prevention and early intervention of anxiety and depression with children living in orphanages. The current study is the first-ever evaluation of the effectiveness of the Spanish version of the *FRIENDS for Life* program (*AMISTAD para Siempre* in Spanish) implemented at a selective level of prevention with Mexican girls living in an orphanage. This study evaluates the impact of the program on participants' coping skills, self-concept, self-esteem and hope, as well as their levels of anxiety and depressive symptoms, and risk status for anxiety and depression.

Three research questions guided this study: (1) What is the effect of the Spanish version of the *FRIENDS for Life* program on the participants' coping skills, self-concept, self-esteem, hope, anxiety and depressive symptoms, and risk status for anxiety and depression? It was hypothesised that the proactive coping skills, self-concept, self-esteem, and hope of the participants would increase and they would report less anxiety and depressive symptoms and risk after the intervention; (2) To what extent were the participants satisfied with the program, and which of the skills learnt did they find more useful? It was hypothesised that participants would enjoy the program and would find the skills learnt useful to cope with daily life stressors.

Method

A one group pretest–post-test design was employed to address the research questions. The independent variable was the intervention Spanish version of the *FRIENDS for Life* program and the dependent variables were: coping skills, self-concept, self-esteem, hope, anxiety and depression. Social validity was also evaluated.

Participants

Participants included ten girls aged from 9 to 10 years who came from a low socio-economic backgrounds and were living at an orphanage in Mexico. The mean age of girls was 9.80 ($SD = 0.42$). The girls were attending a public school located beside the orphanage, and were in grades 4 and 5. They had been living in the orphanage for several reasons: some were abandoned by their parents; some came from dysfunctional families with situations such as drug abuse, and/or physical and psychological abuse; and some had parents or close relatives who could not take care of the child during the week but saw them on the weekends. The city chosen for this study is one of the three cities in Mexico with the highest prevalence rate for anxiety disorders (Medina-Mora et al., 2003).

Measures

Seven measures were administered collectively to all participants to assess protective factors, determine the severity of anxiety and depressive symptoms and risk status, and evaluate the social validity of the program. Measures were counterbalanced.

Cuestionario de Afrontamiento (Hernández-Gúzman, 2003). This is a Spanish measure developed and standardised in Mexico to assess coping skills in children. The *Cuestionario de Afrontamiento* is a self-report measure for children aged 6 to 12 years. The scale has 12 items related to a child's interpretation and reactions when facing a problem, and the things he or she does to cope and/or solve the problem. Lower scores reflect a more proactive positive coping. Children are asked to rate on a 3-point scale ranging from *Never* (0) to *Always* (2) the frequency with which they experience each statement. The questionnaire assesses coping responses to situations perceived as stressful and provides information on three factors: active coping, emotional coping, and passive or avoidant coping. Scores of the *Cuestionario de Afrontamiento* have shown adequate psychometric properties (Hernández-Guzmán, 2003). The *Cuestionario de Afrontamiento* has demonstrated adequate psychometric properties, including a Cronbach's alpha reliability coefficient of 0.67 (Hernández-Guzmán).

Piers Harris 2: Lo Que Pienso de Mi Mismo. This is the Spanish version of the Piers-Harris Children's Self-Concept Scale (CSCS; Piers, 1984) that was designed to examine the self-attitudes of children aged from 8 to 19. The self-reported measure assesses six aspects of a child's self-concept: behaviour, intellectual and school status, physical appearance and attributes, anxiety, popularity, and happiness and satisfaction. The instrument is a 60-item inventory consisting of short sentences for which the child answers yes or no. The items describe children's feelings about themselves and about the reactions of others toward them; higher scores indicate a better self-concept. Each positive response is scored with 1 point and each negative response with 0 points. About half of the 60 statements indicate high self-concept and half are low self-concept. High scores indicate a better self-concept. CSCS total scale internal consistency ranges from 0.88 to 0.94, with stability ranging from 0.42 to 0.96. CSCS subscale internal consistency ranges from 0.73 to 0.81 (Bracken, Bunch, Keith, & Keith, 2000; Piers). Scores on the CSCS have shown adequate test–retest reliability ($r = .80$) and convergent validity ($r = .61$) with other self-concept instruments such as the Multidimensional Self-Concept Scale (Piers).

Inventario de Autoestima. The Spanish version of the Self-Esteem Inventory (SEI) by Coopersmith (1967) is a 58-item self-report measure appropriate for use with

children aged 8 to 15 years. The measure consists of four subscales and a lie scale. The four subscales assess four separate constructs of self-esteem: general self-esteem (e.g., 'Things usually don't bother me'); social self-esteem (e.g., 'I'm easy to like'); home esteem (e.g., 'My parents understand me'); and school esteem (e.g., 'I'm doing the best work that I can'). Participants are required to endorse either *Like me* (1) or *Unlike me* (0) in response to each statement, with higher scores on each subscale indicative of higher self-esteem. The SEI has demonstrated sound psychometric properties (Coopersmith, 1967, 1989), including good convergent validity and an internal consistency of 0.86 (Kokenes, 1978; Robertson & Miller, 1986). In the same way, the Spanish translation of the SEI used in this study demonstrated sound psychometric properties; alpha reliability coefficients ranged from .507 to .862 for social esteem and overall score, respectively (Prewitt-Diaz, 1984).

The Children's Hope Scale (Snyder et al., 1997). This is a self-report measure designed to measure children's dispositional hope. The measure was translated into Spanish for this study. The measure was developed for use with children aged 8 to 16 years and consists of six items, three of which assess agency thoughts and three which assess pathways thoughts. In response to each item, the children are giving the six-option continuum: *None of the time* to *All of the time* and are asked to select the option that describes them the best. A higher total score represents a higher level of hope. Snyder et al. (1997) has reported the measure has acceptable psychometric properties such as internal consistency ($r = .77$) and test–retest reliability ($r = .73$), as well as support for concurrent and predictive validity. This measure has been translated into Spanish, but no current studies have been conducted on its validation.

Escala de Ansiedad para Niños de Spence (Spence, 1997). This is the Spanish version of the Spence Children's Anxiety Scale (SCAS), a self-report measure of anxiety designed for use with children aged from 8 to 12 years. The SCAS consists of 44 items, 38 of which assess specific anxiety symptoms (e.g., symptoms of social phobia, separation anxiety, panic attack and agoraphobia). The remaining six items serve as positive 'filter items' in order to reduce negative response bias. Children are asked to rate, on a 3-point scale ranging from *Never* (0) to *Always* (2), the frequency with which they experience each symptom. The total score of this measure was used in the current study. Spence (1997) has reported high internal consistency ($r = .92$), high split half reliability ($r = .90$), adequate test–retest reliability ($r = .60$), as well as support for convergent and divergent validity. This measure has been translated into Spanish and standardised with a normative sample of students from Mexico showing sound psychometric properties, including a reliability coefficient of 0.91 on the SCAS scores (Bermúdez-Ornelas & Hernández-Guzmán, 2002; Hernández-Guzmán et al., 2010).

Cuestionario de Depresión Infantil (Kovacs, 1981). This is the Spanish version of the Children's Depression Inventory, a self-report measure used for depressive symptoms in children aged 7 to 17 years. The CDI has 27 items related to the cognitive, affective and behavioural signs of depression. Each item contains three statements, and children select the one statement that best describes them in the past 2 weeks. Statements within each item are scored according to the severity of children's symptoms: no symptomatology present (0), mild symptomatology (1), or severe symptomatology (2). A total score is calculated by summing the statements chosen by the students. The statement (item 9) that assessed suicidality was removed. The CDI has shown good

psychometric properties: a Cronbach's alpha reliability coefficient of 0.94 and a test–retest reliability coefficient of 0.87, and adequate construct and content validity (Del Barrio, Moreno-Rosset, & López-Martínez, 1999; Saylor, Finch, Spirito, & Bennett, 1984).

Social Validity Questionnaire for Children (Barrett, 2005). For this study, the questionnaire was translated into Spanish. The questionnaire is comprised of seven questions. Using a 4-point scale from 1 (*A lot/all the time*) to 4 (*Not at all/nothing at all*) the first five questions related to how enjoyable the program was, how much they learnt by doing the program with their classroom friends, how much they learnt about feelings and about how to cope when being worry or upset, and and how often the skills have been used. The sixth question asked which skills they had found more useful, and a final open-ended question was an opportunity to comment on the program.

Procedure

Measures were administered to all participants at pretest and post-test. Instructions and test items for all measures were read aloud, and participants were informed that all responses were confidential.

The two group leaders who implemented the intervention completed a 2-day training course covering the principles and practices of prevention and early intervention. The training provided a step-by-step guide to the intervention program. Group leaders implemented the *FRIENDS for Life* program (Barrett, 2008a, 2008b), once a week for 10 consecutive weeks. Sessions lasted from 60 to 75 minutes and were conducted after school at the orphanage.

Intervention Protocol and Materials

AMISTAD para Siempre (Barrett, 2008a, 2008b), the culturally adapted Spanish version of the *FRIENDS for Life* program, is a social and emotional program designed to enhance resilience in children. It incorporates physiological, cognitive, and behavioural strategies to assist children in coping with stress and worry. The behavioural component includes self-monitoring of feelings and thoughts, out-of-session and mental imagery exposure, and relaxation training. The cognitive component teaches children to recognise their feelings and thoughts and the link between them. It also teaches students to identify faulty cognitions and incompatible self-statements, and to elaborate alternative interpretations of difficult situations. The family and peer support component discourages the avoidance of anxiety-provoking situations by promoting the practice of problem solving. It encourages the building of social support groups and respect for diversity. Learning techniques include group discussion, hands-on activities, and role-play. Approximately one session is dedicated to learning each of the seven steps represented by the FRIENDS acronym. The Spanish acronym is parallel to the English in terms of the concepts taught. After the introductory session, children start to learn the letter *F*, which stands for 'Feeling worried?' followed by the letter *R* 'Relax and feel good', *I* 'Inner helpful thoughts', *E* 'Explore solutions and coping plans', *N* 'Nice work; reward yourself', *D* 'Don't forget to practise', and *S* 'Smile and stay calm'. Within each session, the teacher uses modelling of the skills, and after the skills are taught, children have opportunities to practise in small groups and debrief with the whole classroom.

Group leaders received a copy of the *AMISTAD para Siempre: Manual para Líderes de Grupo* (Barrett, 2008b) that describes the goals and strategies for each session, the

TABLE 1

Means and *SD* of the Outcome Measures at Each Time Point

	Pretest			Post-test		
Outcome measure	*M*	*SD*	*N*	*M*	*SD*	*N*
Cuestionario de Afrontamiento	10.50	2.37	10	9.30	3.94	10
Piers Harris 2:						
Lo que pienso de mi mismo	41.30	7.97	10	46.60	8.19	10
Inventario de Autoestima	50.22	9.73	10	59.67	11.93	10
The Children's						
Hope Scale	19.90	5.59	10	23.30	3.53	10
Escala de Ansiedad para Niños de Spence	40.40	16.87	10	27.00	13.96	10
Cuestionario de Depresión Infantil	14.50	8.83	10	11.60	5.95	10

desired outcomes, and the specific exercises to be used in meeting these outcomes. Participants from the intervention group received a copy of the *AMISTAD para Siempre: Cuaderno de Trabajo para Niños* (Barrett, 2008a). The workbook allowed participants to practise the skills. Homework activities provided them with an opportunity to reinforce and generalise the skills to their daily life.

Statistical Analysis

Questions were addressed separately using paired sample *t* tests (alpha level 0.05) in order to examine the dependent variables of coping skills, self-concept, self-esteem, hope, anxiety and depression. To further evaluate the effectiveness of the program, Chi-square analyses were conducted on the SCAS and CDI to examine risk status of children at each time point. Participants scoring 41 or above on the SCAS were considered to be 'at risk' for anxiety. Children scoring 15 or above on the CDI were considered to be 'at risk' for depression. For purposes of the current study, participants were categorised as either high or low risk for depression using a cutoff score of 15, determined by adding 1 *SD* (5.36) to the CDI mean score = 9.39 of the sample from the larger study ($N = 931$; Gallegos, 2008).

Results

Effects of the Program

To examine the effect of the intervention, participants' total scores on each outcome measure were compared from pretest to post-test. Table 1 displays the means and standard deviations on each dependent measure at each time point. For all measures, positive changes were observed when looking at the pretest and posttest means. The outcome measures that reached statistically significance were *Piers Harris: Lo que Pienso de Mí Mismo*, $t(9) = -7.25$, $p > .05$, change from 'low average' to 'average' and *Escala de Optimismo para Niños*, $t(9) = -2.68$, $p > .05$.

In the frequencies of girls at risk for anxiety and depression before and after the intervention, an improvement is reported. Regarding risk status, at pretest 50% of the participants were at risk for anxiety compared to only 20% at post-test. At pretest 40% of the participants were at risk for depression compared to 30% at post-test. However,

TABLE 2

Subscales and Test Items that Reported a Statistical Significant Improvement

	Pretest			Post-test			
Subscales/Items	*M*	*SD*	*N*	*M*	*SD*	*N*	*t* value
10. I get angry, hit and insult (1)	1.00	.82	10	.20	.43	10	3.21
Popularity subscale (2)	40.80	8.16	10	46.10	6.89	10	−2.96
1. My classmates bully me (2)	0.30	.48	10	.90	.316		−3.67
20. I behave badly at home (2)	.60	.51	10	1.00	.01	10	−2.45
29. I worry a lot (2)	.10	.32	10	.60	.52	10	−3.00
48. My family is disappointed with me (2)	.60	.52	10	1.00	.01	10	−2.45
Home subscale (3)	7.60	2.63	10	10.20	1.48	10	−3.55
Social subscale (3)	5.90	3.61	10	9.20	3.30	10	−1.29
31. Things in my life are very complicated (3)	0.22	0.67	10	1.00	1.05	10	−2.53
54. Usually my parents expect more from me (3)	.80	1.03	10	2.00	.00	10	−3.67
2. I can think of many ways to get the things in life that are most important to me (4)	2.60	1.27	10	4.60	1.57	10	−4.24
3. I am doing just as well as other kids my age (4)	2.80	1.48	10	4.20	1.55	10	−2.80
2. I am scared of the dark (5)	1.30	.68	10	.70	.82	10	2.25
16. I have trouble going to school in the mornings because I feel nervous or afraid (5)	.70	.67	10	.50	.71	10	0.69
22. I worry that something bad will happen to me (5)	1.90	.32	10	1.10	.99	10	2.23
29. I worry what other people think of me (5)	1.20	.92	10	.60	.67	10	2.25
40. I have to do some things over and over again (5)	1.40	.84	10	.50	.71	10	3.86
43. I am proud of my schoolwork (5)	1.80	.32	10	.90	.74	10	3.25
Negative mood subscale (6)	3.10	1.80	10	2.40	1.35	10	0.69
20. Feeling alone (6)	.90	.88	10	.30	.48	10	2.25

Note: The numbers in parenthesis identify the following measures. Cuestionario de Afrontamiento = 1, Piers Harris 2: Lo que pienso de mi mismo = 2, Inventario de Autoestima = 3, The Children's Hope Scale = 4, Escala de Ansiedad para Niños de Spence = 5, and Cuestionario de Depresión Infantil = 6. All the *t* values presented in this table reached statistical significance $p < .05$.

Chi-square analysis revealed that the changes in risk status were not statistically significant for anxiety, $\chi^2(1, N = 10) = 1.98$, $p > .05$, or risk for depression, $\chi^2(1, N = 10) = 1.18$, $p > .05$.

Paired sample *t* tests were also conducted on the items of each outcome measure. Statistically significant differences were found for the following items (See Table 2).

TABLE 3

Results of the Social Validity Questionnaire for Children

Question	% (*n*) A lot	Sometimes	A little bit	Nothing
1. How much did you enjoy the program?	80% (8)	10% (1)	10% (1)	0%
2. How much did you learn by participating in the program with your peers?	70% (7)	20% (2)	0%	10% (1)
3. How much did you learn about feelings?	90% (9)	0%	10% (1)	0%
4. How much did you learn about how to cope with situations that make you feel worried or angry?	80% (8)	10% (1)	10% (1)	0%
5. How often do you use the skills learnt in the program?	70% (7) All the time	20% (2) Sometimes	10% (1) Few times	0% Never

Social Validity Evaluation

Table 3 displays the results from the social validity questionnaire. Overall, participants evaluated the program as enjoyable and useful to help them cope with situations that made them feel worried or upset.

The skills that the participants found more useful were: (1) changing negative, unhelpful thoughts to positive, helpful thoughts, and the coping step plan; (2) deep breathing and creating positive and powerful thoughts; (3) relaxation exercises; and (4) acknowledging your own feelings.

Discussion

The study investigated the effectiveness of the Spanish version of the *FRIENDS for Life* program, as a selective prevention strategy for an at-risk group of children living in an orphanage. The primary objective of the study was to examine whether the program produced any changes in anxiety and depressive symptomatology and risk status, as well as changes in protective factors such as self-concept, self-esteem and hope. Participants' satisfaction with the program was also assessed. Resource limitations prohibited the authors from conducting a major efficacy trial; however, it represents the first step to examine how prevention and early intervention for anxiety and depression can be delivered for at-risk groups such as children living in an orphanage.

When examining the impact of the program in protective factors, a positive and statistically significant change was found for self-concept and hope. Similar results have been found with the *FRIENDS for Life* program in previous studies, where after the intervention, children and adolescents decreased their pessimistic future outlook (Barrett, Sonderegger, & Sonderegger, 2001; Barrett, Sonderegger, & Xenos, 2003). The statistically significant improvement in participants' hope suggested that participants experienced a meaningful learning of how to think positively and feel confident, and the importance of working hard to reach their goals. This is also

supported by the social validity results, as changing negative unhelpful thoughts to helpful positive thoughts and creating positive and powerful thoughts were two of the skills that participants rated as most useful.

It is a promising finding that after a 10-week intervention period there was a positive change in participants' global level of self-concept. This is perhaps related to the skills taught by the program, such as engaging in positive feelings, changing negative self-talk into positive, acknowledging their uniqueness as individuals and their personal strengths, and rewarding themselves for trying. Results also showed a significant improvement in the Popularity subscale of the Piers Harris-2, and the Home and Social self-esteem subscales. In some of the items of the outcome measures, participants reported significant improvements, such as: to be less bullied, behaving better at home, and a reduction in aggressive behaviours such as hitting and insults, when dealing with a difficult situation. This is consistent with the findings of several studies that found after the intervention a reduction in peer problems and reduced victimisation by community violence (Stopa, Barrett, & Golingi, 2010; Cooley-Strickland, Griffin, Darney, Otte, & Ko, 2011), a reduction in conduct problems (Stopa et al.), and improvements in self-esteem (Barrett et al., 2003; Stopa et al.). Perhaps this is the result of participants learning about self-confidence and how to deal with peer pressure, acquiring social skills for establishing positive relationships, and learning relaxation techniques, problem-solving and coping strategies. Home activities may also have helped participants to generalise the skills learnt in different contexts such as school and the orphanage.

Significant positive changes were found for some items of the anxiety measure related to being less scared of the dark, afraid and nervous of going to school, and a decrease in catastrophic thinking and compulsive behaviours. This may be the result of learning and practising relaxation and cognitive restructuring techniques. However, contrary to the authors' hypothesis and to previous studies (Barrett et al., 2000, 2001, 2003; Cooley-Quille, Boyd, & Grados, 2004; Cooley-Strickland et al., 2011), the change in the total mean score of the SCAS did not reached statistical significance. Possible explanations for these could be that the measure is not culturally sensitive for Mexican children or that a sleeper effect could occur like in the study of Barrett, Lock and Farrell (2005). Cooley-Strickland et al. have suggested that there can be cultural differences endorsing anxiety symptoms and this is an aspect that warrants further study.

A statistically significant decrease was found for the subscale of Negative mood of the CDI and the item related to the feeling of being alone. A decrease in depressive symptoms was also found in the study by Stopa et al. (2010), and this may be the result of learning to think positively, establishing social support groups, valuing their uniqueness as a person, and identifying their personal strengths.

Similar to the results reported by Cooley-Quille et al. (2004), positive but non-statistically significant changes were found for participants' risk status for anxiety and depression. In particular, a pronounced change was found for anxiety, with 30% of girls considered at-risk being in the 'healthy range' after participating in the program. The potential benefit of reducing the risk for anxiety and depression and increasing protective factors of children living in an orphanage seems promising and warrants further investigation. Consistent with previous studies about using the *FRIENDS for Life* program as selective prevention, participants regarded the program as useful and enjoyable, which will be of help to continue practising the skills learnt.

Limitations of the Study

The limitations of this study should be taken into account when interpreting the findings. One of the main limitations was the very small sample size; it was believed that power limitations would prohibit statistical analyses of the data (Cuijpers, 2003). The fact that the study did not incorporate a control group increases a threat to validity, such as maturation and history. However, as in the study by Stopa et al. (2010), due to the increased risk for significant social and emotional problems faced by children living in an orphanage, it was deemed unethical to deny them the opportunity to participate in an empirically validated program for the prevention of anxiety and depression, especially in a developing country such as Mexico where prevention programs are scarce. Second, the effectiveness of the program was evaluated only with self-report measures that rely on children's subjective perceptions; there may be therefore some question about the accuracy of the results. Third, due to financial and time constraints it was impossible to include multiple informants such as the teachers and the caregivers and staff in charge of the orphanage, nor was it possible to conduct follow-up evaluation. Maintenance data is needed to evaluate long-term efficacy. Finally, another limitation of this study is that the sessions for parents and caregivers that are included in the *FRIENDS for Life* program were not delivered, and this may limit the transfer of the skills in multiple contexts (Neil & Christensen, 2009).

Further Directions

With most the research on the prevention of anxiety and depression conducted in developed countries with high SES populations, this study represents an important contribution for the promotion of mental health in developing countries (Patel & Sumathipala, 2001). In the interest of reducing at a macro-level the burden of anxiety disorders and depression, a priority should be placed on prevention in high-risk populations (Cuijpers, 2003; Stopa et al., 2010). This is an innovative approach to examine how prevention and early intervention programs might be implemented in a high-risk group of children living in an orphanage. Further studies should evaluate if positive changes in psychological functioning and wellbeing could reach statistical significance with a larger sample. Taking into account the current methodological shortcomings of this study, further studies should include multiple informants as well as participants from both genders and different ages. Predictors of treatment outcome should also be evaluated. To make the intervention stronger, additional in-session adaptations could be incorporated to tailor to the specific stress-provoking situations experienced by orphans, including booster sessions and more caregiver involvement to aid with the follow-up of the homework activities. As a response to the recent findings of the study by Benjet et al. (2009), which reported that almost 40% of the adolescents in Mexico were experiencing a mental health problem (anxiety being the most common), it is imperative to join efforts to provide early and effective interventions to prevent anxiety and depression in high-risk groups.

References

Ahmad, A., & Mohamad, K. (1996). The socioemotional development of orphans in orphanages and traditional foster care in Iraqi Kurdistan. *Child Abuse & Neglect*, *20*, 1161–1173.

Ainsworth, M.D.S. (1965). Further research into the adverse effects of maternal deprivation. In J. Bowlby (Ed.), *Child care and the growth of love* (pp. 191–251). Baltimore, MD: Penguin.

Ames, E., Chisholm, K., Fisher, L., Morison, S. J., Thompson, S., Mainemer, H. (1997). *The development of Romanian orphanage children adopted to Canada*. Burnaby, Canada: Simon Fraser University.

Barrett, P. (2005). Support materials for the FRIENDS program. Brisbane, Australia: Pathways Health and Research Centre.

Barrett, P. (2008a). *AMISTAD para Siempre: Cuaderno de Trabajo para Niños*. Brisbane, Australia: Australian Academic Press.

Barrett, P. (2008b). *AMISTAD para Siempre: Manual para Líderes de Grupo*. Brisbane, Australia: Australian Academic Press.

Barrett, P., Lock, S., & Farrell, L.J. (2005). Developmental differences in universal preventive intervention for child anxiety. *Clinical Child Psychology and Psychiatry*, *10*, 539–555.

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.

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.

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*, 241–260.

Benjet, C., Borges, G., Medina-Mora, M.E., Zambrano, J., & Aguilar-Gaxiola, S. (2009). Youth mental health in a populous city of the developing world: Results from the Mexican adolescent health survey. *Journal of Child Psychology and Psychiatry*, *50*, 386–395.

Bermúdez-Ornelas, G., & Hernández-Gúzman, L. (2002). La medición de la fobia específica en niños y adolescentes. *Revista Mexicana de Psicología*, *19*, 119–225.

Bracken, B.A., Bunch, S., Keith, T.Z., & Keith, P.B. (2000). Child and adolescent multidimensional self-concept: A five instrument factor analysis. *Psychology in the Schools*, *37*, 483–493.

Caraveo-Anduaga, J.J., & Comenares-Bermúdez, E. (2002). Los trastornos psiquiátricos y el abuso de substancias en México: Panorama epidemiológico. *Salud Mental*, *25*, 9–15.

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*, 105–123.

Cooley-Strickland, M., Griffin, R.S., Darney, D., Otte, K., & Ko, J. (2011). Urban African American youth exposed to community violence: A school-based anxiety preventive intervention efficacy study. *Journal of Prevention and Intervention in the Community*, *39*(*2*), *149–166*.

Coopersmith, S. (1967). *The antecedents of self-esteem*. San Francisco, CA: Freeman.

Coopersmith, S. (1989). *Self-Esteem Inventories*. Palo Alto, CA: Consulting Psychologists Press.

Costello, E.J., Pine, D.S., Hammen, C., March, J., Plotsky, P. M., Weissman, M., ... Leckman, J.F. (2002). Development and natural history of mood disorders. *Biological Psychiatry*, *52*, 529–542.

Cuijpers, P. (2003). Examining the effects of prevention programs on the incidence of new cases of mental disorders: The lack of statistical power. *American Journal of Psychiatry*, *160*, 1385–1391.

Daunhauer, L.A., Bolton, A., & Cermak, S.A. (2005). Time-use patterns of young children institutionalized in Eastern Europe. *Occupation, Participation and Health*, *25*, 33–40.

Del Barrio, M.V., Moreno-Rosset, C., & López-Martínez, R. (1999). The Children's Depression Inventory in a Spanish sample. *Clínica y Salud*, *3*, 263–272.

DeRosier, M.E. (2004). Building relationships and combating bullying: Effectiveness of a school-based social skills group intervention. *Journal of Clinical Child and Adolescent Psychology*, *33*, 196–201.

Gallegos, J. (2008). *Preventing childhood anxiety and depression: Testing the effectiveness of a school-based program in Mexico*. Available from ProQuest Dissertation and Theses database (UMI No. 3341564).

Gallegos, J., Langley, A., & Villegas, D. (2012). Anxiety, depression and coping skills among Mexican school children: A comparison of students with and without learning disabilities. *Learning Disability Quarterly*, *35*(1), 54–61.

Gladstone, T., & Beardslee, W. R. (2009). The prevention of depression in children and adolescents: A review. *La Revue Canadienne de Psychiatrie*, *54*, 212–221.

Gordon, R. (1987). An operational classification of disease prevention. In J. Steinberg & M. Silverman (Eds.), *Preventing mental disorders in school-age children: A review of the effectiveness of prevention programs*. (pp. 20–26). Washington, DC: Department of Health and Human Services, National Institute of Mental Health.

Hernández-Gúzman, L. (2003). *Escala de afrontamiento (versión infantil). Proyecto de investigación DGAPA IN-302600, evaluación y categorización de los trastornos de ansiedad en niños y adolescentes*. México, DF: Universidad Autónoma de México.

Hernández-Guzmán, L., Bermúdez-Ornelas, G., Spence, S.H., Montesinos, M.J., Martínez-Guerrero, J.I., Aguilar-Villalobos, J., & Gallegos Guajardo, J. (2010). Versión en Español de la Escala de Ansiedad para Niños de Spence (SCAS). *Revista Latinoamericana de Psicología*, *42*, 13–24.

Horowitz, J.L., & Garber, J. (2006). The prevention of depressive symptoms in children and adolescents: A meta-analytic review. *Journal of Consulting and Clinical Psychology*, *74*, 401–415.

Johnson, R., Browne, K., & Hamilton-Giachritsis, C. (2006). Young children in institutional care at risk of harm. *Trauma, Violence & Abuse*, *7*, 3–60.

Johnson, D.E. (2000). Medical and developmental sequelae of early childhood institutionalization in Eastern European adoptees. In C.A. Nelson (Ed.), *The effects of early adversity on neurobehavioral development: The Minessota symposia on child psychology* (pp. 113–162). Mahwah, NJ: Lawrence Erlbaum Associates.

Kendall, P.C., & Suveg, C. (2006). Treating anxiety disorders in youth. In P.C. Kendall (Ed.), *Child and adolescent therapy* (pp. 243–296). New York: The Guildford Press.

Kokenes, B. (1978). A factor analytic study of the Coopersmith Self-Esteem Inventory. *Adolescence*, *13*, 149–155.

Kovacs, M. (1981). *Inventario de Depresión Infantil*. Madrid, España: TEA Ediciones.

Langley, A.K., Bergman, R.L., McCracken, J., & Piacentini, J.C. (2004). Impairment in childhood anxiety disorders: Preliminary examination of the Child Anxiety Impact Scale-Parent Version. *Journal of Child and Adolescent Psychopharmacology*, *14*, 105–114.

McKenzie, R. (1998, September 28). Neglected solutions. *National Review*, 33–36.

Medina-Mora, M.E., Borges, G., Lara, C., Benjet, C., Blanco, J., Fleiz, C., ... Aguilar-Gaxiola, S. (2003). Prevalencia de trastornos mentales y uso de servicios: Resultados de la encuesta nacional de epidemiología psiquiátrica en México. *Salud Mental*, *26*, 1–16.

Miller, L., Chan, W., Comfort, K., & Tirella, L. (2005). Health of children adopted from Guatemala: Comparison of orphanage and foster care. *Pediatrics*, *115*, 710–717.

Neil, A.J., & Christensen, H. (2009). Efficacy and effectiveness of school-based prevention and early intervention programs for anxiety. *Clinical Psychology Review*, *29*, 208–215.

Patel, V., Flisher, A.J., Nikapota, A., & Malhotra, S. (2008). Promoting child and adolescent mental health in low and middle income countries. *The Journal of Psychology and Psychiatry*, *49*, 313–334.

Patel, V., & Sumathipala, A. (2001). International representation in psychiatric journals: A survey of six leading journals. *British Journal of Psychiatry*, *168*, 406–409.

Piers, E.V. (1984). *Piers-Harris Children's Self-Concept Scale: Revised manual*. Los Angeles, CA: Western Psychological Services.

Prewitt-Díaz, J.O. (1984). A cross-cultural study of the reliability of the Coppersmith Self- Esteem Inventory. *Educational and Psychological Measurement*, *44*, 23–27.

Robertson, T.G., & Miller, E. (1986). The Coopersmith Self- Esteem Inventory: A factor analytic study. *Educational and Psychological Measurement*, *46*, 269–273.

Rutter, M., Krepper, J.M., & O'Connor, T.G. (2011). Specifity and heterogeneity in children's responses to profound institutional privation. *The Journal of Mental Science*, *179*, 97–103.

Rutter, M. (1998). Developmental catch-up, and deficit, following adoption after severe global early privation. *Journal of Child Psychology and Psychiatry*, *29*, 465–476.

Saylor, C.F., Finch, A.J., Spirito, A., & Bennett, B. (1984). The Children's Depression Inventory: A systematic evaluation of psychometric properties. *Journal of Consulting & Clinical Psychology*, *52*, 955–967.

Somen, K.S. (1986). A study of the mental health status of children in orphanages at Bangalore. *Indian Journal of Social Work*, *1986*, 137–146.

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

Snyder, C.R., Hoza, B., Pelham, W.E., Rapoff, M., Ware, L., Danovsky, M., ... Stahl, K.J. (1997). The development and validation of the Children's Hope Scale. *Journal of Pediatric Psychology*, *22*, 399–421.

Stopa, E.J., Barrett, P.M., & Golingi, F. (2010). The prevention of childhood anxiety in socioeconomically disadvantaged comunities: A universal school based trial. *Advances in School Mental Health Promotion*, *3*, 5–24.

Vorria, P., Papaligoura, Z., Dunn, J., van IJzendoorn, M.H., Steele, H., Kontopoulou, A., & Sarafidou, Y. (2003). Early experiences and attachment relationships of Greek infants raised in residential group care. *Journal of Child Psychology and Psychiatry*, *44*, 1208–1220.

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