Clinical Child Psychology and Psychiatry

http://ccp.sagepub.com

Using Friends to Combat Anxiety and Adjustment Problems among Young Migrants to Australia: A National Trial

Paula M. Barrett, Robi Sonderegger and Sophia Xenos

Clinical Child Psychology and Psychiatry 2003; 8; 241
DOI: 10.1177/1359104503008002008

The online version of this article can be found at:
http://ccp.sagepub.com/cgi/content/abstract/8/2/241

Published by:
SAGE
http://www.sagepublications.com

Using FRIENDS to Combat Anxiety and Adjustment Problems Among Young Migrants to Australia: A National Trial

PAULA M. BARRETT & ROBI SONDEREGGER
Griffith University, Australia

SOPHIA XENOS
RMIT University, Australia

ABSTRACT

The primary objectives of this study were: (i) 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 (ii) 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 wait-list condition. All students completed standardized measures of self-esteem, internalizing 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 six months following 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, fewer internalizing symptoms, and a less pessimistic future outlook than wait-list participants at both post- and six 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.

KEYWORDS

anxiety, children, culture, FRIENDS, treatment

STRESS AND ANXIETY in school-age children and teenagers are broadly considered to be a normal part of development – serving to enhance performance or provide a

Clinical Child Psychology and Psychiatry 1359–1045 (200304)8:2 Copyright © 2003
SAGE Publications (London, Thousand Oaks and New Delhi) Vol. 8(2): 241–260; 032336
www.sagepublications.com

protective defense against interpersonal threats. For select individuals, however, when adverse circumstances cause excessive worries and sadness, personal apprehension can be extremely debilitating (Treadwell, Flannery-Schroeder, & Kendall, 1995). The goal of much clinical research in recent years has been to identify the risk and protective mechanisms that mediate psychological health and dysfunction. With a better understanding of the relationship between situational and internal characteristics of emotional distress, mental health professionals have been better equipped to develop prevention, emotional resiliency training (early intervention), and treatment programs to address the specific needs of children and youth at risk (Barrett, Dadds, & Rapee, 1996; Kendall et al., 1997; Shortt, Barrett, & Fox, 2001; Silverman et al., 1999). Unfortunately, research to date has been disproportionately focused on Anglo youth, largely neglecting growing multicultural populations.

Over the past decade, cross-cultural research has highlighted the plight of children and teenagers who migrate with their families to countries of diverse culture. Whether migrating under refugee status, or for political/economic reasons, children and teenagers of non-English speaking background (NESB) migrating families are confronted with a plethora of situational and emotional difficulties (Barrett, Sonderegger, & Sonderegger, in press; Sam, 2000).

Early cross-cultural literature identifies components that mediate the amount of stress that children and adolescents experience when adjusting to a new cultural environment,

---

ACKNOWLEDGEMENTS: This project was funded by the Commonwealth of Australia as represented by the Department of Health and Aged Care, and conducted by Griffith University, RMIT University, and the State of Queensland through the Queensland Transcultural Mental Health Centre, Division of Mental Health.

PAULA BARRETT is primary author of the FRIENDS program, and Senior Lecturer at Griffith University, Mt Gravatt Campus. Dr Barrett's primary research interests are in the fields of child and adolescent psychopathology. In addition to serving as a reviewer to both research panels and psychological journals within Australia, Dr Barrett is Director of the National Management Committee for Non-English Speaking Background for research, and has published widely on the assessment and treatment of child and youth anxiety and depression.

CONTACT: School of Applied Psychology, Griffith University, Mt Gravatt Campus, Mt Gravatt, Queensland 4111, Australia. [E-mail: P.Barrett@mailbox.gu.edu.au].

ROBI SONDEREGGER is the National Coordinator for anxiety prevention research and positive-coping training with culturally diverse children, youth, and parents of non-English speaking background (through Griffith University, Mt Gravatt, the Queensland Transcultural Mental Health Center – Division of Mental Health, and the Department of Family and Community Services), and coordinates community development projects in developing countries.

SOPHIA XENOS is a Psychology Lecturer (teaching undergraduate psychological theory and postgraduate clinical skills) at RMIT University, and Victorian State coordinator for FRIENDS research with non-English speaking background children and youth, through the Commonwealth Department of Health and Aged Care. Dr Xenos' current research interests include the psychological well-being of displaced children, and providing skill-based programs for parents from diverse cultural backgrounds who are experiencing difficulties with their children.

including self-concept and prior interactions with foreign cultures (Kealey, 1989), language competence and social integration (Redmond & Bunyi, 1993), and duration in the host culture (Hull, 1978). More recent investigations (reviewed in Sonderegger & Barrett, in press) have found identification with host members (physical appearance and linguistic similarities) and the quality of relationships developed with host friends and schoolteachers to be of the strongest protective factors. It is theorized that building good relationships with host peers and elders may promote the development of intercultural communication competence and identification with new cultural values and norms, serving to mitigate acculturative stress (Miyamoto & Kuhlman, 2001). In addition to understanding the pathological characteristics of emotional distress, the identification of cultural adjustment components may enhance the utility of existing clinical interventions for use among culturally diverse migrant populations.

In keeping with Australia's push to identify risk and protective mechanisms of cultural adjustment, and provide tangible resources that address the concerns of NESB children and adolescents, this study examines the immediate and longer term benefits of using a well-validated 10-week group-based cognitive-behavioral early intervention program (FRIENDS; Barrett, Lowry-Webster, & Turner, 2000c, 2000d) in school-based settings. Specifically, this study replicates, expands upon, and validates earlier work using the FRIENDS program with NESB migrant children and youth to Australia (Barrett, Moore, & Sonderegger, 2000; Barrett, Sonderegger, & Sonderegger, 2001), incorporating a cross-section of migrant populations across different Australian states.

Psychosocial prevention, early intervention, and treatment programs in the school setting that feature cognitive-behavioral counseling approaches, are increasingly recognized as valid and effective tools in building emotional resiliency against psychological distress (Barrett, 1999; Barrett, Lowry, & Wallis, 1999). However, clinical studies incorporating their use with non-Anglo populations are unfortunately rare. Of the few empirical trials that have been conducted with NESB populations, conclusions have been limited by a myriad of methodological difficulties.

A preliminary treatment–wait-list comparison trial examining the utility of the FRIENDS program with clinically anxious female teenage refugees from the former-Yugoslavia (Barrett, Moore, & Sonderegger, 2000) revealed the cognitive-behavior therapy program to be effective in reducing emotional distress. Although intervention participants reported significantly lower levels of anxiety at post treatment than teenagers participating in a control condition, the small treatment sample size ($n = 9$) rendered statistical power unable to determine the program's ethnic applicability and efficacy with any real degree of certainty. In an attempt to generate greater statistical power and trial cognitive-behavioral program techniques across different age groups (elementary and high schools), genders, and cultural groups, Barrett et al. (2001) replicated and expanded initial research endeavors.

Two hundred and four Chinese, former-Yugoslavian, and mixed NESB ethnic participants took part in a research program that aimed to both validate the efficacy of the FRIENDS program, and obtain social validity data so as to determine the cultural appropriateness of program elements. This trial found that ethnically diverse elementary school students reported significant improvements in self-esteem following participation in the FRIENDS program. Both elementary and high school students who completed the FRIENDS program reported significantly lower levels of anxiety and hopelessness than wait-list participants who were paired for ethnicity and school level. Similar to wait-list measures reported by Barrett, Moore, and Sonderegger (2000), where anxiety symptom severity increased from pre- to post assessment, wait-list participants in this extension trial reported a reduction in self-esteem (elementary students only) and an

increase in hopelessness from pre- to post assessment. In accord with culture shock theory, Barrett et al. (2001) contend that in the short-term it is likely that the experience of cultural adjustment among young migrants may change from idealization to disillusionment over time, prior to assimilation. In this regard, confrontation with foreign cultural norms may serve to initially heighten internalizing symptom severity, and contribute towards poor self-esteem and pessimistic expectations of the future.

Although the preliminary clinical research outcomes reported by Barrett et al. (2001) revealed the FRIENDS program to be culturally acceptable by participants and, moreover, effective in building emotional resiliency, methodological shortcomings have limited the generalizability of their findings. To ensure sufficient statistical power in gauging pre–post change, age, gender, and cultural groups were collapsed during analysis, not accounting for demographic and cultural difference. Although social validity and treatment integrity data were able to provide insight into cultural learning preferences, responsiveness, and topic interest profiles of participants, the efficacy of the program strategies among unique cultural groups was unable to be ascertained. As such, combined ethnic data sets have rendered treatment results only provisional at best.

Although it would be ideal to critically appraise the application of FRIENDS and other well-validated intervention programs using large numbers of young migrants who are of the same cultural and linguistic background and paired for other demographic variables (as in Anglo-Australian trials, e.g. Barrett, 1998; Barrett et al., 1996; Shortt et al., 2001), the growth of migrant populations and therefore access to research participants in Australia are subject to continually changing state and federal migration settlement policies.

In an attempt to address some of the methodological difficulties of past cross-cultural clinical trials, young culturally diverse migrants from different Australian states were sought for cross-comparison and more detailed analysis. The primary focus of this study is two-fold. First, to obtain greater statistical power and confirmatory evidence in evaluating the capacity of FRIENDS to reduce psychological distress and build emotional resiliency in young NESB migrants, and second, to determine whether any change in psychological symptoms and emotional resilience would be maintained over time. By administering the program to a large number of young migrants of diverse cultural backgrounds and developmental stages (elementary and high school) in different states of Australia at pre-, post-, and six months follow-up assessment intervals, trial outcomes will be more robust and generalizable to different cultural groups than previous clinical research studies.

Method

Participants

A total of 320 children and adolescents participated in this study (153 females and 167 males). The sample was comprised of former-Yugoslavian (n = 125), Chinese (n = 148), and non-specific NESB (n = 47) students who have migrated to Australia. Students were recruited from English-as-a-second-language (ESL) classes in elementary and high schools located in the metropolitan hubs of Queensland and Victoria. Prior to assessment, schools and ESL class in both states were allocated to either an intervention (n = 166) or wait-list (n = 154) control condition. All participants in this study ranged in age from 6 to 19 years. The age ranges in elementary (n = 131) and high (n = 189) school participants were 6–13 years (M = 10.25), and 11–19 years (M = 14.31), respectively. Intervention and wait-list groups were matched for culture, and were grouped according

to school level and cultural background. A breakdown of participant demographic variables is presented in Table 1.

Self-report measures

An assessment package was created to examine levels of self-esteem, emotional distress, and future outlook. The inventories listed below were selected according to cultural and age appropriateness.

Measures of self-esteem As in previous cross-cultural studies (Barrett et al., 2001, in press) the Self-Esteem Inventory (SEI; Coopersmith, 1981) and the Rosenberg Self-Esteem Scale (RSES; Rosenberg, 1965) were used to measure self-concept and personal worth among culturally diverse elementary and high school migrant students. The SEI is designed for administration with elementary school children, assessing self-esteem across general self, social self–peers, home–parents, and school–academic domains. Participants report whether items are 'like me' or 'unlike me'. Similar to earlier investigations that have narrowed down the number of questions ethnic children are required to answer, a combination of 'social self–peers' and 'school–academic' subscales were

Table 1. Demographic breakdown of participants in each condition

	Wait-list			*Intervention*		
	F-Yugosl	*Chinese*	*M-Ethnic*	*F-Yugosl*	*Chinese*	*M-Ethnic*
School level						
Elementary	14	30	n/a	41	46	n/a
High	38	43	29	32	29	18
Gender						
Males	23	40	18	30	42	14
Females	29	33	11	43	33	4
Age						
Elementary school						
Mean	9.90	10.50	n/a	9.89	10.71	n/a
High school						
Mean	14.21	14.53	14.55	14.43	13.44	14.72
Ethnic origin						
Bosnia	17			25		
Serbia	20			27		
Croatia	9			21		
Macedonia	6			0		
ML China		37			17	
Hong Kong		14			9	
Taiwan		19			42	
NSCB		3			7	
H-Africa			4			7
Russia			1			1
Greece			1			0
Mexico			1			0
Spain			0			1
SE-Asia			18			6
P-Islands			3			2
Kosavo			1			1

Note. F-Yugosl = Former-Yugoslavian; M-Ethnic = Mixed Ethnicity; ML China = Mainland China; NSCB = Non-specific Chinese Background; H-Africa = Horn of Africa; SE-Asia = Southeast Asia; M-East = Middle East; P-Islands = Pacific Islands.

included in this study, yielding a total score range of 0–16. Higher scores indicate higher self-esteem. The 10-item RSES is designed for administration with high school students, measuring global feelings of self-worth and self-acceptance. Participants' responses to each question range from 'strongly agree' to 'strongly disagree'. As with the SEI, higher scores are synonymous with higher self-esteem. Both SEI and RSES are psychometrically sound (Coopersmith, 1967, 1989; Rosenberg, 1989).

Internalizing symptoms Consistent with prior investigations by Barrett et al. (2001, in press), all participants in this study were administered the Revised Children's Manifest Anxiety Scale (RCMAS; Reynolds & Richmond, 1985) and the Trauma Symptom Checklist for Children (TSCL; Briere, 1996). The RCMAS measures anxiety-related symptoms across three factor domains of general anxiety (physiological, worry/oversensitivity, and social concerns/concentration). Participants respond to each of the 37 items in a 'yes' or 'no' format. The TSCL assesses the trauma symptoms across six clinical scales (Anxiety, Anger, Depression, Post-traumatic Stress, Dissociation, and Sexual Concerns). The frequency of symptoms experienced in each sub-scale (excluding Sexual Concerns) was measured. Participant self-report answers range from 'never' to 'very often'. Both the RCMAS and TSCL are widely used in clinical (Briere, 1996; Reynolds & Richmond, 1978, 1985) and cross-cultural (Dong, Yang, & Ollendick, 1994; Ginsburg & Silverman, 1996) research, exhibiting sound validity and reliability.

Future outlook The Kazdin (Kazdin, French, Unis, Esveldt-Dawson, & Sherick, 1983) and Beck (Beck, Weissman, Lester, & Trexler, 1974) Hopelessness Scales (KHS and BHS respectively) were employed to measure future outlook among elementary and high school participants. The KHS is designed to measure hopelessness in elementary school children, defined as pessimistic expectations of the future. Participants respond to each of the 17 items as being either 'true' or 'false'. The BHS is designed to measure pessimistic expectations for older participants. As with the KHS, adolescents respond to each of the 20 items in a 'true' or 'false' format. Hopeless cognition scores are summed to yield a total score range of 0–20. Higher scores on both the KHS and BHS indicate a greater sense of hopelessness in participants' outlook on their future.

Intervention materials

Clinical research in Australia has contributed greatly to the development and validation of cognitive-behavior programs for both the prevention and treatment of anxiety in children and teenagers. The FRIENDS program (Barrett, Lowry-Webster, & Turner, 2000a, 2000b, 2000c, 2000d) is one internationally recognized early intervention program for children and adolescents that has received much acclaim in recent years. Developed through extensive scientific research and clinical validation over the past 10 years (Barrett, 1998, 1999, in press; Shortt et al., 2001), FRIENDS promotes important personal development skills such as building self-esteem, problem-solving, self-expression of ideas and beliefs. Through the establishment of good relationships with peers, parents, and adults, FRIENDS serves to teach children and adolescents how to cope with and manage anxiety and depression, preventing the development of serious mental disorders, emotional distress, and impairment in social functioning.

The FRIENDS program has been distributed nationally throughout Australia under the Mental Health Strategy, and has a reputation as the only clinically validated early intervention and prevention program for anxiety and depression in Australia (satisfying federal government guidelines for evidence-based research). Its strong evidence base has encouraged international demand, with the program now being used in Britain and the

United States of America, and recent translations of the program having been made in both German and Dutch. Barrett and colleagues (Barrett, Moore, & Sonderegger, 2000; Barrett et al., 2001) recently provided preliminary indications that FRIENDS in its current format is also effective in reducing anxiety and stress that accompanies cross-cultural migration.

The FRIENDS program features parallel versions for elementary school children (Barrett et al., 2000a) and high school adolescents (Barrett et al., 2000c). Group leader manuals clearly describe the activities (and rationale) that facilitators are required to implement in each of the 10 structured 1-hour sessions. The word FRIENDS is an acronym that assists participants and family members to remember the coping and problem solving steps to follow. These include: **F**eeling Worried?; **R**elax and feel good; **I**nner thoughts; **E**xplore plans of action; **N**ice work, reward yourself; **D**on't forget to practise; **S**tay cool and calm. Students participate in group discussions, team activities, and individual exercises featured in accompanying student workbooks (Barrett et al., 2000b, 2000d; for more information on FRIENDS see www.friendsinfo.net). In this study, trained bilingual mental health professionals conjointly facilitated the FRIENDS program with small groups (differentiated by former-Yugoslavian, Chinese, and mixed non-specific NESB backgrounds) of elementary and high school students in the school setting. Group facilitators received supervision throughout the program from registered clinical psychologists in Queensland and Victoria.

Treatment integrity

FRIENDS participants completed Treatment Integrity Questionnaires (Barrett, Lowry-Webster, & Turner, 1999) at the end of each session, indicating how well they were able to relate to the topics being addressed, and providing an appraisal of how well each activity was implemented. The aims of each activity completed in the session were discussed with participants, allowing them to rate how well they believed specific aims were achieved. For example, 'in the activity *Kelly K Koala and the Body Detective,* the aim was to help group participants identify what happens to their body when they feel worried, nervous, or scared (i.e. their body clues). How well do you think this aim was achieved – extremely well, moderately well, not very well, or not at all?' As in earlier trials, random FRIENDS sessions were audio-taped to ensure adherence to group leader manuals. A clinical psychologist (blind to the study) conducted an independent integrity check of randomly selected elementary and high school audio-taped sessions (totalling approximately one-third of an entire program), revealing 96.5% concordance between session and manual content for elementary schools, and 96.9% for high schools. Participants also completed Group Leader Integrity Questionnaires, providing similar Likert ratings on the ability of group facilitators to implement activities and relate to students.

Procedural variables

A total of 10 culture-specific intervention groups (each comprising between 6 and 17 students) were run in six different schools in Queenland (n = 6) and Victoria (n = 4). Four high school intervention groups (using FRIENDS for Youth, Barrett et al., 2000c, 2000d; n = 50), and six elementary school intervention groups (using FRIENDS for Children, Barrett et al., 2000a, 2000b; n = 71) were run. For comparison and validation purposes, assessment packages (differentiated by elementary and high school) incorporated self-report inventories identical to prior cross-cultural FRIENDS investigations (see Barrett et al., 2001). The same administration procedure was incorporated for all school, condition, and cultural groups. To ensure that administration variables were consistent with methods employed by Barrett et al., group assessments were conducted

verbally in ESL classrooms, providing both an English and native cultural language (Mandarin, Cantonese, and former-Yugoslavian) interpretation of each question by trained bilingual mental health professionals. With the exception of Samoan- and Arabic-speaking students who also received relevant interpretations (because of poor English ability), mixed-NESB participants were administered the assessment package in English only. Each administration of the assessment package occurred over an average of two 1-hour sessions, with non-related activities interspersed to ensure maximum sustained attention.

Results

Prior to analysis of the six psychometric inventories at pre-, post-, and six months follow-up assessment intervals, the distributions of the relevant data were examined to ensure that they did not violate the assumptions of the statistical method employed. In order to assess normality, probability plots with tests of significance and measures of skew and kurtosis were obtained for the dependent variable(s) in each assessment device using the significance level criterion of $\pm$ 3.29 (Tabachnick & Fidell, 1996). All statistical assumptions were upheld, supporting the use of ANOVA and MANOVA statistical evaluation methods. Participant treatment integrity analysis of the FRIENDS program revealed each session to be very well facilitated in both elementary and high school settings. In terms of facilitator skills, 68% of participants rated the ability of their therapist to facilitate the group 'extremely well', 29.4% 'moderately well', and 2.6% 'not very well' or 'not at all'. Means and standard deviations for ratings of treatment integrity and group leader skills are presented in Table 2.

Pre–post evaluation

The variables examined in this study directly relate to the appraisal of FRIENDS being used with ethnically diverse groups. Extraneous variables including cultural subgroups within broad ethnic domains, unique sociocultural perception/acceptance of symptom experience and expression, reason for migration, and duration in the host culture are beyond the scope of this study. To avoid covariant obscurity, and ensure an accurate representation of the specific variables under investigation, participant responses on each self-report measure are first analyzed for variance among conditions (wait-list vs intervention) over time. This independent analysis is intended to help determine the overall efficacy of FRIENDS. To further appraise cultural group differences and interactions between variables, follow-up condition $\times$ cultural group $\times$ time analysis of variance is conducted. To control for Type 1 error, the alpha level of .05 is divided by the number of dependent variables in each analysis.

Self-esteem To determine whether the FRIENDS program would assist in the development of self-esteem among NESB elementary school children, a 2 (condition) $\times$ 2 (time) repeated measures ANOVA was performed for the SEI (Coopersmith, 1981) with combined school and social self-esteem subscales. A significant main effect was found for time ($F(1,107) = 10.328$, $p < .01$), indicating change in self-esteem levels between pre- and post-assessment intervals. A significant interaction was also found between time and condition ($F(1,107) = 3.948$, $p < .05$). Simple effects analysis using unique sums of squares demonstrated the interaction to occur at post assessment ($F(1,107) = 8.73$, $p < .01$). Inspection of descriptive statistics reveal that elementary school students who participated in FRIENDS demonstrated significant improvement in their levels of self-esteem ($M = 11.45$, SD = 3.08) compared with those who participated in the wait-list condition

Table 2. Means (and SD) of participants' evaluation of treatment integrity and FRIENDS group leader skills

Session objectives	M *(SD)*
FRIENDS for Children (elementary school)	
Session 1: Introduction to the group	1.56 (0.64)
Session 2: Introduction to feelings	1.74 (0.69)
Session 3: Thoughts–feelings relationship	1.82 (0.69)
Session 4: Coping with worries steps 1, 2	1.64 (0.33)
Session 5: Coping with worries step 3a	1.55 (0.61)
Session 6: Coping with worries steps 3b, 4a	1.56 (0.61)
Session 7: Coping with worries step 4b	1.53 (0.58)
Session 8: Coping with worries step 5	1.53 (0.58)
Session 9: Practicing the FRIENDS plan	1.58 (0.59)
Session 10: Review and party	1.53 (0.65)
FRIENDS for Youth (high school)	
Session 1: Introduction to the group	1.48 (0.25)
Session 2: Focus on self-esteem	1.60 (0.39)
Session 3: Communication and relationships	1.59 (0.55)
Session 4: Introduction to FRIENDS plan	1.46 (0.39)
Session 5: Inner thoughts	1.47 (0.31)
Session 6: Support team/conflict resolution	1.44 (0.31)
Session 7: Problem solving	1.49 (0.44)
Session 8: The step plan	1.29 (0.34)
Session 9: Applying the FRIENDS plan	1.48 (0.64)
Session 10: Review and Party	1.33 (0.29)
Group leader skills	
Positive reinforcement	1.18 (0.36)
Specific feedback	1.20 (0.39)
Self-disclosure	1.24 (0.42)
Empathy	1.30 (0.47)
Paraphrasing	1.33 (0.44)
Summarization	1.44 (0.70)
Reflection	1.28 (0.49)
Combined total	1.28 (0.33)

Note. Ratings were made using a 5-point Likert scale: 1 = *Extremely well* to 5 = *Not at all.*

(M = 9.58, SD = 2.69). A 2 (condition) × 2 (ethnic group) × 2 (time) repeated measures ANOVA was also conducted for the SEI to determine cultural group (Chinese and former-Yugoslavian) differences. Although no significant main effect was found for ethnic group, a significant interaction between group and time was found ($F(1,107) = 6.305$, $p < .05$). Simple effects analysis using unique sums of squares demonstrated the interaction to occur at post assessment ($F(1,107) = 6.305$, $p < .01$). Inspection of the descriptive statistics revealed former-Yugoslavian participants in FRIENDS (M = 12.09, SD = 2.82) reported a greater increase in self-esteem than Chinese participants (M = 10.93, SD = 3.22) at post assessment. Pre–post assessment results for former-Yugoslavian and Chinese wait-list groups did not change over time. Means and standard deviations of self-report measures for elementary school children are presented in Table 3.

A 2 (condition) × 2 (time) repeated measures ANOVA was performed using the RSES (Rosenberg, 1965) to determine whether the FRIENDS program would also promote self-esteem among NESB high school adolescents. Although no change in

self-esteem levels were reported over time for either intervention or wait-list participants, a significant main effect was found for condition ($F(1,156) = 7.221$, $p < .01$), as well as a significant interaction between condition and time ($F(1,156) = 4.830$, $p < .05$). Simple effects analysis using unique sums of squares revealed a significant difference between intervention and wait-list groups at post assessment ($F(1,156) = 12.13$, $p < .01$). Inspection of combined cultural group descriptive statistics shows that wait-list participants ($M = 24.78$, SD = 1.99) reported higher levels of self-esteem than intervention participants ($M = 23.51$, SD = 2.57) at post assessment. To ascertain why this difference in self-esteem occurred, cultural group (Chinese, Yugoslavian, and mixed) differences were further examined. A 2 (condition) × 3 (cultural group) × 2 (time) repeated measures ANOVA revealed a significant interaction between condition and cultural group ($F(1,152) = 5.593$, $p < .01$). Follow-up simple effects analysis demonstrated a significant difference between Chinese wait-list and intervention participants at pre- ($F(1,181) = 8.59$, $p < .01$) and post assessment ($F(1,181) = 17.21$, $p < .001$). Chinese wait-list participants reported significantly higher self-esteem at pre-assessment ($M = 25.14$, SD = 1.99) than Chinese intervention participants ($M = 23.18$, SD = 3.06). Differences at post assessment between the Chinese wait-list ($M = 25.54$, SD = 1.96) and intervention groups ($M = 23.18$, SD = 2.77) were maintained, thus accounting for the general condition discrepancy. No other main effects were found for self-esteem among adolescent intervention or wait-list participants across cultural groups, indicating no change. Means and standard deviations of self-report measures for high school children are presented in Table 4.

Emotional resilience Separate 2 (condition) × 2 (time) repeated measures ANOVAs were performed for the RCMAS (Reynolds & Richmond, 1985) with both elementary and high school participants in order to examine whether the FRIENDS program assists in the reduction of anxiety levels. For elementary school participants, significant main effect were found between groups for time ($F(1,106) = 6.502$, $p < .05$) and within groups for condition ($F(1,106) = 2.104$, $p < .05$). There was also a significant interaction between condition and time ($F(1,106) = 29.250$, $p < .001$). Simple effects analysis using unique sums of squares revealed the interaction to exist at post assessment ($F(1,106) = 21.70$, $p < .001$). Inspection of descriptive statistics shows participants who participated in FRIENDS reported greatly reduced levels of anxiety from pre- ($M = 12.77$, SD = 7.56) to post assessment ($M = 6.39$, SD = 5.91). Anxiety levels among wait-list participants increased from pre- ($M = 10.10$, SD = 5.66) to post assessment ($M = 12.39$, SD = 6.89). A 2 (condition) × 2 (cultural group) × 2 (time) repeated measures ANOVA revealed no significant anxiety level differences between Chinese and former-Yugoslavian participant groups.

Repeated measures ANOVA with high-school participants revealed similar results. A significant main effect was found for time ($F(1,155) = 13.077$, $p < .001$), as well as a significant interaction between condition and time ($F(1,155) = 4.052$, $p < .05$). Follow-up simple effects analysis demonstrated wait-list and intervention groups to differ significantly at post assessment ($F(1,155) = 8.60$, $p < .01$). As with elementary school students, inspection of descriptive statistics reveal students who participated in the FRIENDS program to exhibit significantly fewer anxiety symptoms ($M = 8.12$, SD = 6.04) than students in the wait-list condition ($M = 10.99$, SD = 6.11). A 2 (condition) × 3 (cultural group) × 2 (time) repeated measures ANOVA was conducted to examine cultural group differences among adolescents. A significant interaction was found between time and cultural group ($F(2,151) = 9.639$, $p < .01$). Simple effects analysis demonstrated the significant interaction to occur at pre assessment ($F(2,154) = 3.53$, $p < .05$). Inspection of the descriptive

statistics revealed that former-Yugoslavian participants (M = 13.52, SD = 8.41) reported higher levels of anxiety than the Chinese (M = 10.68, SD = 5.40) and mixed ethnic (M = 10.50, SD = 5.31) groups at pre assessment. Interestingly, former-Yugoslavian students who participated in FRIENDS also reported the greatest reduction in anxiety (M = 7.32, SD = 6.27) at post assessment.

A mixed factorial (elementary and high school) 2 (condition) × 2 (time) × 5 (Anxiety, Depression, Anger, PTSD, and Dissociation subscales) MANOVA was performed for the Trauma Symptom Checklist (TSCL; Briere, 1996). Significant between subject effects were revealed at post assessment for the subscales of Anxiety ($F(1,254) = 29.266$, $p < .001$), Depression ($F(1,254) = 33.504$, $p < .001$), Anger ($F(1,254) = 36.324$, $p < .001$), PTSD ($F(1,254) = 21.197$, $p < .001$), and Dissociation ($F(1,254) = 24.938$, $p < .001$). Intervention participants were found to obtain significantly lower trauma symptom scores than wait-list participants on each of the five subscales at post assessment. Separate MANOVAs were further performed for both elementary and high school participants to examine condition, cultural group, and pre–post differences. Significant main effects for condition across each subscale were found among elementary ($F(1,106) = 2.208$, $p < .05$) and high school ($F(1,146) = 4.519$, $p < .001$) students. Follow-up simple effects analysis of elementary school data demonstrated main effects for cultural group among wait-list participants at post assessment for Anxiety ($F(1,106) = 5.33$, $p < .05$), Anger ($F(1,106) = 4.11$, $p < .05$), PTSD ($F(1,106) = 5.89$, $p < .05$), and Dissociation ($F(1,106) = 6.08$, $p < .05$). Inspection of the descriptive statistics revealed that former-Yugoslavian wait-list group scored significantly higher than the intervention group, and significantly higher than both Chinese intervention and wait-list groups across all TSCDL subscales, rendering it difficult to draw accurate conclusions about emotional resiliency outcomes from combined ethnic group data. Consequently, a mixed factorial MANOVA was employed to independently examine the Chinese participant scores on each of the TSCL subscales.

For the Chinese elementary school participants, a significant multivariate effect was found for condition ($F(10,55) = 74.795$, $p < .001$). Tests of between-subject effects for condition revealed significant main effects for each of the subscales at post assessment: Anxiety ($F(1,64) = 8.654$, $p < .01$), Depression ($F(1,64) = 10.409$, $p < .01$), Anger ($F(1,64) = 14.742$, $p < .01$), PTSD ($F(1,64) = 13.300$, $p < .01$), and Dissociation ($F(1,64) = 22.900$, $p < .001$). Inspection of the descriptive statistics revealed that the Chinese students who participated in the FRIENDS program reported a reduction in trauma symptoms on each subscale. Chinese wait-list participants reported no change in trauma symptomatology over time.

Among high school students, significant multivariate effects were found for both condition ($F(10,135) = 3.142$, $p < .01$) and cultural group ($F(20,270) = 1.737$, $p < .05$). Tests of between-subject effects for condition revealed significant main effects for each of the subscales at post assessment: Anxiety ($F(1,144) = 12.843$, $p < .01$), Depression ($F(1,144) = 15.528$, $p < .001$), Anger ($F(1,144) = 10.208$, $p < .01$), PTSD ($F(1,144) = 6.727$, $p < .01$), and Dissociation ($F(1,144) = 6.692$, $p < .05$). Tests of between-subject effects for cultural group revealed only one significant main effect for the Anger subscale at post assessment ($F(1,144) = 5.319$, $p < .01$). Follow-up t-tests revealed that the Chinese and the former-Yugoslavian groups differed significantly on measures of anger at post assessment ($t(.838) = 2.730$, $p < .001$). Inspection of the descriptive statistics demonstrates that the Chinese wait-list (M = 9.83, SD = 5.04) and intervention groups (M = 5.29, SD = 5.42) scored significantly higher than the former-Yugoslavian wait-list (M = 4.73, SD = 3.79) and intervention groups (M = 4.92, SD = 4.20). Although a cultural group × condition interaction was also observed, it failed to reach significance at the adjusted alpha level

of .01 (.05 divided by the five TSCL subscales to control for Type 1 error). As represented in Table 4, descriptive statistics show all intervention participants experienced a reduction in symptomatology from pre- to post assessment on each subscale, regardless of cultural group.

Future outlook and hopelessness For elementary school participants, a 2 (condition) × 2 (time) repeated measures ANOVA as performed with the KHS (Kazdin et al., 1983). A significant main effect was found for time ($F(1,108) = 5.541$, $p < .05$) and for condition ($F(1,108) = 4.277$, $p < .05$). There was also a significant interaction between condition and time ($F(1,108) = 9.835$, $p < .01$). Simple effects analysis revealed the wait-list and intervention groups differed significantly at post assessment ($F(1,108) = 17.32$, $p < .001$). Inspection of descriptive statistics shows that sense of hopelessness among intervention group participants decreased significantly from pre- ($M = 5.34$, SD = 4.07) to post intervention ($M = 3.30$, SD = 2.48). Wait-list participants experienced no change in future outlook from pre- ($M = 5.52$, SD = 4.14) to post wait ($M = 5.81$, SD = 3.61). Although further analysis was conducted to determine how future outlook might vary according to cultural group, no significant cultural group differences were found.

A 2 (condition) × 2 (time) repeated measures ANOVA was performed for the BHS (Beck et al., 1974). A significant main effect was found for condition ($F(1,152) = 11.631$;

Table 3. Pre–Post Means (and SD) of self-report measures for elementary school wait-list and intervention conditions

	Chinese				*Former-Yugoslavian*			
	Wait-list		*Intervention*		*Wait-list*		*Intervention*	
	Pre M *(SD)*	*Post* M *(SD)*	*Pre* M *(SD)*	*Post* M *(SD)*	*Pre* M *(SD)*	*Post* M *(SD)*	*Pre* M *(SD)*	*Post* M *(SD)*
SEI*[a]	9.44	9.33[ab]	8.93	10.93[ab, c]	9.00	11.25[ab]	9.03	12.69[ab, c]
	(3.91)	(2.65)	(4.09)	(3.22)	(2.16)	(2.75)	(4.43)	(2.82)
RCMAS**[a, b]	9.41	12.04[ab]	12.67	6.50[ab]	14.75	14.75[ab]	12.89	6.26[ab]
	(5.70)	(7.28)	(7.63)	(6.00)	(2.50)	(2.50)	(7.56)	(5.34)
TSCL								
Anx**[b, c]	3.38	3.38	7.10	4.38	12.25	10.75	5.53	3.86
	(5.11)	(6.96)	(5.60)	(4.12)	(6.24)	(6.99)	(6.18)	(4.02)
Dep**[b, c]	7.38	7.54	5.58	4.13	13.75	11.25	5.56	3.64
	(4.03)	(4.94)	(4.32)	(3.64)	(4.50)	(7.54)	(5.45)	(3.38)
Ang**[b, c]	9.12	8.46	5.37	3.95	19.25	14.75	6.22	3.81
	(5.78)	(6.00)	(6.47)	(3.55)	(5.25)	(7.27)	(7.62)	(4.27)
PTSD**[b, c]	11.42	11.04	8.42	6.03	18.50	13.50	7.64	5.94
	(4.23)	(5.73)	(5.97)	(5.99)	(4.65)	(4.80)	(6.55)	(5.03)
Dissc**[b, c]	9.08	9.69	7.50	4.83	18.50	13.50	6.53	5.33
	(3.26)	(4.21)	(6.46)	(3.92)	(4.65)	(4.80)	(6.88)	(5.03)
KHS*[a, b]	5.04	5.37	5.74	3.36	8.75	8.75	4.86	3.36
	(3.85)	(3.22)	(4.36)	(2.49)	(5.19)	(5.19)	(3.70)	(2.50)

Note. Anx = Anxiety; Dep = Depression; Ang = Anger; Dissc = Dissociation. SEI = Self-Esteem Inventory; RCMAS = Revised Children's Manifest Anxiety Scale; TSCL = Trauma Symptom Checklist for Children; KHS = Kadzin Hopelessness Scale.

*Significant at .01; **significant at .001.

[a]Significant main effect for time.

[b]Significant main effect for condition.

[c]Significant main effect for ethnic group.

[ab]Significant interaction between time and condition.

Table 4. Pre–Post Means (and SD) of self-report measures for high school wait-list and intervention conditions

	Chinese				*Former-Yugoslavian*				*Mixed ethnicity*			
	Wait-list		*Intervention*		*Wait-list*		*Intervention*		*Wait-list*		*Intervention*	
	Pre M (*SD*)	*Post* M (*SD*)	*Pre* M (*SD*)	*Post* M (*SD*)	*Pre* M (*SD*)	*Post* M (*SD*)	*Pre* M (*SD*)	*Post* M (*SD*)	*Pre* M (*SD*)	*Post* M (*SD*)	*Pre* M (*SD*)	*Post* M (*SD*)
RSES**[b]	25.14[c]	25.54[ab, c]	23.18	23.18[ab]	24.13	24.53[ab]	24.70	23.50[ab]	24.30	24.00	24.50	24.00
	(1.99)	(1.96)	(3.06)	(2.77)	(2.36)	(2.00)	(2.18)	(2.58)	(1.80)	(1.68)	(2.03)	(1.68)
RCMAS**[a]	11.83[ac]	11.31[ab]	9.62[ac]	9.71[ab]	12.87[ac]	9.43[ab]	14.16[ac]	7.32[ab]	11.71[ac]	11.71[ab]	8.69[ac]	7.56[ab]
	(5.58)	(5.86)	(4.47)	(5.94)	(7.46)	(6.17)	(9.32)	(6.27)	(5.49)	(6.64)	(4.61)	(5.67)
TSCL												
Anx**[b]	6.80	7.29	6.86	5.00	7.13	6.90	9.36	5.16	7.74	6.96	5.81	3.00
	(3.78)	(3.97)	(2.74)	(4.84)	(4.74)	(4.93)	(5.58)	(4.46)	(5.57)	(4.79)	(3.89)	(2.63)
Dep***[b]	6.00	7.09	6.10	4.62	5.53	4.73	7.60	3.73	6.52	7.22	5.31	3.44
	(3.73)	(4.72)	(2.47)	(3.53)	(4.05)	(3.73)	(5.20)	(2.96)	(3.10)	(2.95)	(2.50)	(2.31)
Ang**[b]	8.54	9.83[c]	6.67	5.29[c]	5.33	4.73[c]	9.72	4.92[c]	7.96	7.39[c]	6.38	4.75[c]
	(4.75)	(5.04)	(2.76)	(5.42)	(3.52)	(3.79)	(7.29)	(4.20)	(3.05)	(3.27)	(4.26)	(3.42)
PTSD**[b]	8.79	8.91	7.38	7.29	7.03	7.17	10.88	6.24	8.00	8.35	6.94	4.75
	(5.20)	(5.11)	(3.37)	(4.57)	(4.82)	(4.12)	(6.11)	(5.71)	(4.24)	(4.26)	(4.23)	(3.57)
Dissc*[b]	8.54	8.86	6.71	6.24	7.03	7.17	10.88	6.24	8.00	8.35	6.94	4.75
	(5.16)	(5.30)	(3.54)	(4.68)	(4.82)	(4.12)	(6.11)	(5.71)	(4.24)	(4.26)	(4.23)	(3.57)
BHS***[b]	9.29	9.54	6.14	5.32	8.67	8.33	8.30	8.77	7.16	7.84	5.47	4.67
	(2.77)	(2.63)	(3.20)	(4.13)	(3.75)	(4.48)	(4.46)	(4.16)	(3.57)	(3.08)	(2.95)	(3.72)

Note. Anx = Anxiety; Dep = Depression; Ang = Anger; Dissc = Dissociation. RSES = Rosenberg Self-Esteem Scale; RCMAS = Revised Children's Manifest Anxiety Scale; TSCL = Trauma Symptom Checklist for Children; BHS = Beck Hopelessness Scale.

*Significant at .05; **significant at .01; ***significant at .001.

[b]Significant main effect for condition.

[c]Significant main effect for ethnic group.

[ab]Significant interaction between time and condition.

[ac]Significant interaction between time and ethnic group.

[abc]Significant interaction between time, condition, and ethnic group.

$p < .01$). Inspection of descriptive statistics revealed that at pre assessment there was a significant difference between intervention ($M = 6.89$, SD = 3.94) and wait-list ($M = 8.49$, SD = 3.42) participants. This difference was maintained at post assessment with FRIENDS participants reporting only a minor decrease in hopelessness ($M = 6.44$, SD = 4.50), and wait-list participants a minor increase in hopelessness ($M = 8.81$, SD = 3.36). Again, further analysis was conducted to determine how sense of hopelessness might vary according to cultural group. No significant cultural group differences were identified.

Six-months follow-up evaluation

Queensland participants in both wait-list and intervention conditions completed select inventories six months following the initial post-assessment time. To test whether significant differences for self-esteem, anxiety, and future outlook were maintained between conditions (intervention vs wait-list), and across time (pre-, post-, and six months follow-up), scores on select psychometrics were analyzed using repeated measure ANOVAs. For this purpose, ethnic groups were collapsed to ensure sufficient statistical power. Once again, prior to each analysis, the distributions of the relevant data were examined to ensure that they did not violate the assumptions of the statistical method employed.

Long-term self-esteem To examine whether the FRIENDS program would assist the long-term development in self-esteem among NESB elementary school children, a 2 (condition) × 3 (time) repeated measures ANOVA was performed using the SEI (Coopersmith, 1981). A significant main effect was found for condition ($F(1,62) = 4.941$, $p < .05$), indicating that the intervention and wait-list groups differed in their levels of self-esteem. A significant main effect was also found for time ($F(1,62) = 4.041$, $p < .05$). Follow-up *t*-tests indicated significant differences between pre intervention and six months follow-up ($t(.487) = –.979$, $p < .05$), and post intervention and six months follow-up ($t(.491) = 1.512$, $p < .01$). Intervention participants reported a significant increase in self-esteem from pre- ($M = 10.93$, SD = 2.68) and post-assessment times ($M = 11.37$, SD = 9.22) to six months follow-up ($M = 12.78$, SD = 2.97). In comparison, the wait-list condition showed no significant change in self-esteem ratings from pre- ($M = 10.72$, SD = 3.03) and post-assessment times ($M = 9.22$, SD = 2.67) to six months follow-up ($M = 10.83$, SD = 3.65).

A 2 (condition) × 3 (time) repeated measures ANOVA was performed with the RSES (Rosenberg, 1965) to examine whether the FRIENDS program would assist the long-term development in self-esteem among NESB high school adolescents. A significant main effect was found for time ($F(1,51) = 32.387$; $p < .001$). Follow-up *t*-tests revealed that the wait-list and intervention groups differed significantly between pre assessment and six months follow-up ($t(.833) = –4.739$, $p < .001$), and post assessment and six months follow-up ($t(.771) = –4.779$, $p < .001$). Inspection of descriptive statistics revealed that self-esteem among intervention group participants increased significantly from pre- ($M = 23.30$, SD = 2.47) and post intervention ($M = 23.13$, SD = 2.45), to six months follow-up ($M = 28.30$, SD = 4.47). No significant self-esteem changes were reported among wait-list participants between pre-, post-, and six months follow-up assessment times.

Emotional resiliency maintenance A 2 (condition) × 3 (time) repeated measures ANOVA was performed for the RCMAS (Reynolds & Richmond, 1985) to examine whether the FRIENDS program would serve to maintain a reduction in student's levels of anxiety over time. A significant main effect was found for time ($F(1,114) = 7.759$, $p < .01$). Simple effects analysis revealed that the significant reduction of the intervention group's anxiety

levels from pre- ($M = 9.85$, SD = 5.56) to post assessment ($M = 7.52$, SD = 5.99) was maintained at six months follow-up ($M = 7.51$, SD = 10.66). There was also a significant main effect found for condition ($F(1,114) = 11.970$, $p < .01$), indicating that the intervention and wait-list groups differed in their level of anxiety. Simple effects analysis revealed no significant change in anxiety among wait-list participants between pre-, post-, and six months follow-up assessment times.

Future outlook and hopelessness To examine the future outlook of elementary school students over time, a 2 (condition) × 3 (time) repeated measures ANOVA was performed with the KHS (Kazdin et al., 1983). A significant main effect was found for condition ($F(1,61) = 18.310$, $p < .001$). There was also a significant interaction between condition and time ($F(1,61) = 3.419$, $p < .05$). Simple effects analysis demonstrated that the wait-list and intervention groups differed significantly at both post-condition assessment ($F(1,61) = 14.89$, $p < .001$) and six months follow-up ($F(1,61) = 23.04$, $p < .001$). Inspection of descriptive statistics revealed that among intervention group participants the significant decrease in hopelessness from pre- ($M = 3.73$, SD = 2.12) to post assessment ($M = 2.73$, SD = 2.03) was maintained at six months follow-up ($M = 2.73$, SD = 2.12). Hopelessness among wait-list participants increased from pre- ($M = 4.89$, SD = 3.86) to post- ($M = 5.16$, SD = 2.83) and six months follow-up ($M = 5.89$, SD = 2.98) assessment intervals. The degree of hopelessness among students who participated in FRIENDS was significantly lower at both post assessment and six months follow-up assessment times compared with wait-list participants. A 2 (condition) × 3 (time) repeated measures ANOVA performed for the BHS (Beck et al., 1974), revealed no significant main effects for condition or time among high school adolescents. All six months follow-up descriptive statistics for Queensland elementary and high school participants are featured in Table 5.

Discussion

The primary objectives of this national trial were to: (i) obtain confirmatory evidence that FRIENDS helps reduce psychological distress and build emotional resiliency among young NESB culturally diverse migrant groups, and (ii) to further appraise the long-term impact of FRIENDS by determining whether positive changes would be maintained over time. Consistent with previous clinical treatment (Barrett, Moore, & Sonderegger, 2000), and non-clinical intervention (Barrett et al., 2001) trials that have administered the FRIENDS program to child and adolescent migrants of compatible cultural backgrounds, this study has shown FRIENDS to be effective in building emotional resilience against cultural adjustment difficulties. Preliminary six months follow-up analysis with culturally diverse elementary and high school age migrants has also shown that among FRIENDS participants, improvements in emotional resiliency are sustained over the long-term.

Elementary school children who completed the 10-week intervention reported a significant increase in self-esteem, a significant decrease in anxiety symptoms, and a significant improvement in their expectations for the future from pre- to post assessment. Children who participated in the wait-list condition reported no change in self-esteem or hopelessness, and an increase in their level of anxiety from pre- to post assessment. High school students who participated in the FRIENDS program reported significantly reduced levels of anxiety, depression, anger, post-traumatic stress, and dissociation from pre- to post assessment. Similar to elementary school students, adolescent wait-list participants reported an increase in anxiety symptoms from pre- to post assessment.

Table 5. Pre-, Post-, and 6-month follow-up means (and SD) of self-report measures for elementary school wait-list and intervention conditions

	Wait-list			*Intervention*		
	Pre M *(SD)*	*Post* M *(SD)*	*6-month* M *(SD)*	*Pre* M *(SD)*	*Post* M *(SD)*	*6-month* M *(SD)*
Self-esteem						
SEI*[a, b]	10.72	9.22	10.83	10.93	11.37	12.78
	(3.03)	(2.67)	(3.65)	(2.08)	(3.23)	(2.97)
RSES***[a]	23.09	23.17	27.57	23.30	23.13	28.30
	(2.50)	(1.59)	(5.23)	(2.47)	(2.45)	(4.47)
Anxiety						
RCMAS**[a, b]	10.10	11.95[ab]	10.11[ab]	9.85	7.52[ab]	7.71[ab]
	(5.42)	(7.55)	(6.57)	(5.56)	(5.99)	(10.66)
Hopelessness						
KHS***[b]	4.89	5.10	5.89	3.73	2.73	2.73
	(3.89)	(2.83)	(2.98)	(2.12)	(2.03)	(2.12)
BHS	4.39	5.30	5.96	5.21	4.03	4.31
	(2.61)	(3.25)	(4.70)	(4.03)	(3.38)	(3.26)

Note. *Significant at .05; **significant at .01; ***significant at .001.
[a]Significant main effect for time.
[b]Significant main effect for condition.
[ab]Significant interaction between time and condition.
SEI = Self-Esteem Inventory; RSES = Rosenberg Self-Esteem Scale; RCMAS = Revised Children's Manifest Anxiety Scale; KHS = Kazdin Hopelessness Scale; BHS = Beck Hopelessness Scale.

Adolescent wait-list participants reported no other change over time on all other measures.

Evaluation of culture-specific groups revealed some interesting trends. Among elementary school participants, wait-list participants of former-Yugoslavian origin reported greater levels of trauma symptoms than any other group. Although pre-migration stress was not a factor explored in this study, it is likely that former-Yugoslavian refugees experienced different levels of pre-migration stress as mediated by their exposure to war. Accordingly, it is not surprising that a small cluster of children reported clinical levels of trauma. Yet following the completion of FRIENDS former-Yugoslavian children reported highest levels in self-esteem.

All adolescent cultural groups reported moderate levels of self-esteem, with Chinese wait-list participants reporting the highest levels at both pre- and post-assessment intervals. On measures of emotional resilience, former-Yugoslavian participants reported significantly higher levels of anxiety at pre assessment. However, of all cultural groups former-Yugoslavian adolescents who participated in FRIENDS also reported the greatest decrease and lowest levels of anxiety at post assessment. Although all cultural groups who participated in FRIENDS reported a reduction in trauma symptomatology, wait-list and intervention participants of Chinese origin scored higher than former-Yugoslavian students on the Anger subscale at post assessment.

Preliminary analysis of Queensland participants 6 months following the completion of the program has shown that reductions in hopelessness (elementary school students only) and anxiety levels were maintained, and that self-esteem levels increased. Follow-up reports among wait-list participants reveal levels of hopelessness (high school students only), self-esteem, and anxiety among wait-list participants remained unchanged. Among elementary school participants, however, future outlook was found to

become more pessimistic over time. Coupled with wait-list reports of an increase in anxiety from pre- to post assessment, this finding follows previously observed trends. Barrett, Moore, and Sonderegger (2000) found that the severity of internalizing symptoms among wait-list participants increased, and Barrett et al. (2001) observed that wait-list participants report having lower self-esteem (elementary students only) and a greater sense of hopelessness at post-wait assessment times. Barrett et al. contend that because the experience of cultural adjustment often changes from idealization to disillusionment over time, acculturative stress serves to maintain or advance internalizing symptomatology, which in turn may contribute to poor self-appraisal and pessimistic expectations of the future. The findings of this study support their argument insomuch that initial reports of higher emotional distress over time are observed to translate into poor self-esteem and an increased sense of hopelessness over the long-term.

Although the administration of the FRIENDS program is here seen to be effective in buffering some of the negative pathogenic effects of cultural adjustment, a number of cultural and methodological variables need to be considered. Acculturative stress may largely be mediated by language and physical appearance differences, level of family and social support, peer acceptance, educational difficulties, degree of ethnic identity and self-concept, reason for migration, duration in the host culture, and cultural-specific socialization practices (Barrett et al., in press; Winter & Young, 1998). Considering cultural identification and coping ability are recognized to influence the mental health outcomes of migration (Pinderhughes, 1989; Ponterotto, Baluch, & Carielli, 1998), it is not surprising that some differences between cultural groups were found in this study.

Consistent with Barrett et al. (in press), the present study lends support to culture-specific trends. It may be theorized that cross-cultural similarities between former-Yugoslavian children and their Australian host-peers may advantage students in practicing FRIENDS social support principals with a broader cross-section of children than their Chinese migrant counterparts. Accordingly, former-Yugoslavian adolescents were found to exhibit significantly greater reduction in anxiety than other cultural groups following the completion of FRIENDS, although the reverse was true prior to the program's administration. Given the propensity for former-Yugoslavian youth to better identify with their new cultural environment, such affiliation may help to contribute to the effectiveness of FRIENDS. Barrett et al. report former-Yugoslavian students to be more robust in their cultural adjustment, scoring significantly lower on the clinical anxiety, anger, and post-traumatic stress scales than other cultural groups (using different assessment devices). Similar to Barrett et al.'s finding that Chinese participants who reported minimal cultural adjustment also report higher levels anxiety and post-traumatic stress than other cultural groups, the present study found Chinese adolescents to exhibit a higher degree of anger than other cultural groups, regardless of condition. Although the TSCL subscale is not sensitive enough to determine what or whom their anger is being directed towards, Ponterotto et al. (1998) argue that the origins of such emotional unrest are found in poor cultural identification with the host society. Further delineation of developmental pathways that lead to both emotional distress and resiliency in young migrants would considerably improve the ability of intervention programs such as FRIENDS to target culture-specific needs, and build on culture-specific strengths.

In order to achieve optimal cultural sensitivity in the administration of assessment and intervention packages, much work is still required to understand the culture-specific dynamics of emotional experience and expression. A primary methodological limitation of this study is the use of psychological assessment inventories that have been developed and validated with Anglo-cultural populations only. Culturally appropriate responses to

questions may be influenced by a host of variables including expectations of culturally appropriate emotional expression. Considering that the expression of psychological symptoms may vary both in form and intensity between diverse cultural groups, it remains unclear to what extent existing inventories can accurately measure emotional resiliency and symptomatology among NESB migrant youth. Accordingly, all findings in this study should be interpreted with due caution.

The main findings from this investigation offer support for the FRIENDS program as being effective in reducing the anxiety and stress that accompanies cross-cultural migration, promoting long-term self-esteem and a less pessimistic outlook of the future. Cultural group differences in select domains provide tentative evidence to suggest that culture not only mediates responsive behaviors to acculturative stress, but also promotes select emotional resilience components of the FRIENDS program.

Given the increasing cultural diversification of Australia and other western nations, it is essential that mental health professionals appraise the cultural applicability of assessment and intervention resources when working with NESB children and adolescents. Unfortunately, the majority of psychological inventories and early intervention and cognitive-behavior treatment programs currently available have not been validated and tested for reliability among persons from diverse cultural backgrounds. Consequently, mental health professionals have an obligation to appraise the ethical implications of using such materials with children and adolescents from diverse cultural backgrounds (D'Andrea, Daniels, & Gaughen, 1998). The utility of the present investigation assists in not only determining whether the FRIENDS program is culturally sensitive and effective in its application with NESB migrant youth, but also assists in identifying culture-specific socialization and adjustment processors that contribute to the development of emotional resilience. According to McCarty et al. (1999), such research enriches not only our understanding of culturally determined risk and protective mechanisms, but also suggests ways in which differential coping techniques may influence children's responses to threat and challenge.

Considering culturally mediated beliefs, values, and traditions associated with socialization practices are theorized to mediate the type and severity of problems faced by culturally diverse children and adolescents (Ollendick, Yang, King, Dong, & Akande, 1996), how mental health professionals approach the emotional difficulties associated with migration (contending with their own socialization bias) will greatly determine the efficacy of intervention strategies. According to Evans and Lee (1998), cultural sensitivity involves not only an understanding of culturally diverse beliefs and value systems, but also the recognition that culture-specific socialization practices can be viewed as strengths and built upon to serve as an effective clinical resource when applying therapeutic techniques. This study has tapped into both social and cultural validity concepts, appraising the viability of FRIENDS goals, procedures, and outcomes, and the cultural appropriateness of cognitive-behavior group activities and individual exercises. In addition to quantitatively determining the reduction of symptoms as defined from a western mental health perspective, future investigations would do well to appraise FRIENDS and other prevention, early intervention, and treatment programs using a culturally centered assessment framework; identifying culturally intrinsic idioms of emotional distress as a measurement foundation.

References

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

Barrett, P.M. (1999). Anxiety treatment in children within the school setting. *Revista Portuguesa de Pedagogia, 22*, 97–129.

Barrett, P.M. (in press). Group therapy for child and youth anxiety disorders: The FRIENDS program. In C.E. Schafer (Ed.), *Short term psychotherapy groups for children*. New York: Jason Aronson

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*(2), 333–342.

Barrett, P.M., Lowry, H., & Wallis, J. (1999). Adolescent self-esteem and cognitive skills training: A school based intervention. *Journal of Child and Family Studies, 8*, 217–227.

Barrett, P.M., Lowry-Webster, H.M., & Turner, C.M. (1999). *FRIENDS program social validity and treatment integrity scales*. Brisbane: Australian Academic Press.

Barrett, P.M., Lowry-Webster, H., & Turner, C. (2000a). *FRIENDS program for children: Group leaders manual*. Brisbane: Australian Academic Press.

Barrett, P.M., Lowry-Webster, H., & Turner, C. (2000b). *FRIENDS program for children: Participants workbook*. Brisbane: Australian Academic Press.

Barrett, P.M., Lowry-Webster, H., & Turner, C. (2000c). *FRIENDS program for youth: Group leaders manual*. Brisbane: Australian Academic Press.

Barrett, P.M., Lowry-Webster, H., & Turner, C. (2000d). *FRIENDS program for youth: Participants workbook.* Brisbane: 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*, 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., & Sonderegger, N.L. (in press). Assessment of child and adolescent migrants to Australia: A cross-cultural comparison. *International Journal of Intercultural Relations*.

Beck, A.T., Weissman, A., Lester, D., & Trexler, I. (1974). The measurement of pessimism: The hopelessness scale. *Journal of Consulting and Clinical Psychology, 42*, 861–865.

Briere, J.N. (1996). *Trauma Symptom Checklist for Children: Professional manual*. Odessa, FL: Psychological Assessment Resources.

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

Coopersmith, S. (1981). *Coopersmith Inventory: School form*. Palo Alto, CA: Consulting Psychologists Press.

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

D'Andrea, M., Daniels, J., & Gaughen, K.J. (1998). Testing the validity and reliability of the Worry Survey among the African-American use. *Measurement and Evaluation in Counselling and Development, 30*, 170–182.

Dong, Q., Yang, B., & Ollendick, T.H. (1994). Fears in Chinese children and adolescents and their relation to anxiety and depression. *Journal of Child Psychology and Psychiatry, 35*(2), 351–363.

Evans, B., & Lee, B.K. (1998). Culture and child psychopathology. In S. Kazarian & D.R. Evans (Eds.), *Cultural clinical psychology* (pp. 289–315). New York: Oxford University Press.

Ginsburg, G.S., & Silverman, W.K. (1996). Phobic and anxiety disorders in Hispanic and Caucasian youth. *Journal of Anxiety Disorders, 10*, 517–528.

Hull, W.F. IV. (1978). *Foreign student in the United States of America: Coping behaviour within the educational environment.* New York: Praeger.

Kazdin, A.E., French, N.H., Unis, A.S., Esveldt-Dawson, K., & Sherick, R.B. (1983). Hopelessness, depression, and suicide intent among psychiatrically disturbed inpatient children. *Journal of Consulting and Clinical Psychology, 51*, 504–510.

Kealey, D.J. (1989). A study of cross-cultural effectiveness: Theoretical issues, practical application. *International Journal of Intercultural Relations, 13*, 387–428.

Kendall, P.C., Flannery-Schroeder, E., Panichelli-Mindel, S.M., Southam-Gerown, M., Henin, A., & Warman, M. (1997). Treatment of anxiety disorders in youth: A second randomised clinical trial. *Journal of Consulting and Clinical Psychology, 65*, 366–380.

McCarty, C.A., Weisz, J.R., Wanitromanee, K., Eastman, K.L., Suwanlert, S., Chaiyasit, W., & Band, E.B. (1999). Culture, coping, and context: Primary and secondary controlled among the Thai and American youth. *Journal of Child Psychology and Psychiatry, 40*, 809–818.

Miyamoto, Y., & Kuhlman, N. (2001). Ameliorating culture shock in Japanese expatriate children in the US. *International Journal of Intercultural Relations, 25*, 21–40.

Ollendick, T.H., Yang, B., King, N.J., Dong, Q., & Akande, A. (1996). Fears in American, Australian, Chinese, and Nigerian children and adolescents: A cross-cultural study. *Journal of Child Psychology and Psychiatry, 37*, 213–220.

Pinderhughes, E. (1989). *Understanding race, ethnicity, and power: The key to efficacy in clinical practice*. New York: Free Press.

Ponterotto, J.G., Baluch, S., & Carielli, D. (1998). The Suinn-Lew Asian Self-Identity Acculturation Scale (SL-ASIA): Critique and research recommendations. *Measurement and Evaluation in Counselling and Development, 31*, 109–124.

Redmond, M.V., & Bunyi, J.M. (1993). The relationship of intercultural communication competence with stress and the handling of stress as reported by international students. *International Journal of Intercultural Relations, 17*, 235–254.

Reynolds, C.R., & Richmond, B.O. (1978). What I think and feel: A revised measure of children's manifest anxiety. *Journal of Abnormal Child Psychology, 6*, 271–280.

Reynolds, C.R., & Richmond, B.O. (1985). *Revised Children's Manifest Anxiety Scale (RCMAS)*. Los Angeles: Western Psychological Services.

Rosenberg, M. (1965). *Society and the adolescent self-image*. Princeton, NJ: Princeton University Press.

Rosenberg, M. (1989). *Society and the adolescent self-image* (rev. ed.). Middletown, CT: Wesleyan University Press.

Sam, D.L. (2000). Psychological adaptation of adolescents with immigrant backgrounds. *The Journal of Social Psychology, 140*, 5–25.

Shortt, A.L., Barrett, P.M., & Fox, T. (2001). Evaluating the FRIENDS program: A cognitive behavioral group treatment for anxious children and their parents. *Journal of Clinical Child Psychology, 30*, 523–533.

Silverman, W.K., Kurtines, W.M., Ginsburg, G.S., Weems, C.F., Lumpkin, P.W., & Carmichael, D.H. (1999). Treating anxiety disorders in children with group cognitive-behavioral therapy: A randomized clinical trial. *Journal of Consulting and Clinical Psychology, 67*, 995–1003.

Sonderegger, R., & Barrett, P.M. (in press). Assessment and treatment of ethnically diverse children and adolescents. In P.M. Barrett & T.H. Ollendick (Eds.), *Handbook of interventions that work with children and adolescents: Prevention and treatment*. London: Wiley.

Tabachnick, B.G., & Fidell, L.S. (1996). *Using multivariate statistics* (3rd ed.). New York: HarperCollins.

Treadwell, K.R., Flannery-Schroeder, E.C., & Kendall, P.C. (1995). Ethnicity and gender in relation to adaptive functioning, diagnostic status, and treatment outcome in children from an anxiety clinic. *Journal of Anxiety Disorders, 9*, 373–384.

Winter, K.A., & Young, M.Y. (1998). Biopsychosocial considerations in refugee mental health. In S. Kazarian & D.R. Evans, (Eds.), *Cultural clinical psychology* (pp. 348–376). New York: Oxford University Press.