

Effectiveness of a school-based cognitive-behavioural intervention for
anxiety in 8- and 9-year-olds: a controlled trial of the Fun FRIENDS
program in Japan

(8、9歳の不安に対する学校での認知行動介入の効果：
日本におけるファン・フレンズプログラムの対照比較試験)

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ABSTRACT

Introduction: Although the importance of early preventative intervention for anxiety has been reported in past research, few studies have been conducted with children younger than 10 years old. This article examines the efficacy and acceptability of a school-based, universal preventative intervention program for anxiety among children aged 8–9 years. This program is based on cognitive-behavioural therapy (CBT), and is informed by similar universal programs, such as the Fun FRIENDS program.

Methods: The participants were 74 children aged 8–9 years from the same school who were allocated to an intervention and control group. Ten sessions of cognitive behavioural therapy were offered and assessments were conducted before and after the program. The primary outcome measure was the Spence Children's Anxiety Scale (SCAS). Secondary outcome measures were the Depression Self-Rating Scale for Children (DSRS-C), Children's Hope Scale (Hope), Spence Children's Anxiety Scale-Parent Version (SCAS-P), Strengths and Difficulties Questionnaire-Parent Version (SDQ-P), and Strengths and Difficulties Questionnaire-Teacher Version (SDQ-T).

Results: Significant improvements were observed in scores on the SCAS-P and SDQ-T

of the intervention group compared to the control group. However, children's self-reports did not show improvement for any scales (SCAS, DSRs-C, and Hope). Scores on the SDQ-P also did not show significant improvement.

Conclusion: Although there were limitations regarding the data collected from the control group of parents, the results suggest that a school-based, universal preventative intervention program for anxiety may have an effect on children aged 8–9 years.

Trial Registration: UMIN-CTR Identifier UMIN000008798.

KEYWORDS: intervention, children, anxiety, Japan, cognitive-behavioural therapy.

Key Practitioner Message:

- The importance of early preventative intervention for anxiety has been reported in past research.

But few studies have been conducted with children younger than 10 years old.
- A CBT based, universal preventative intervention program for anxiety, may have an effect on children aged 8–9 years in school.
- The children's changes in school could have been led by teacher changes as well. After they participated in the program, the teachers and children seemed to share the same understanding

of situations.

INTRODUCTION

Anxiety is the most common mental symptom of childhood and adolescence (Cartwright-Hatton et al., 2006). Moreover, it has been suggested that if anxiety during childhood is ignored, it could become a serious mental health disorder in adulthood. A review of the prevention literature suggests that prevention efforts ought to occur early in life to reduce the overall burden of anxiety disorders (Bienvenu & Ginsburg, 2007). The early adoption of skills such as anxiety management and coping, before entering primary school, may enable young children and their parents to reduce the impact of anxiety on academic and social success (Hirshfeld-Becker et al., 2008). The crucial age for the prevention of anxiety symptoms is thought to be prior to or around nine years old, when children start to develop autonomy and abstract thinking . As friendships and academic tasks become increasingly complex, there are more situations in which children may become anxious. In Japan, for some children this may lead to school refusal. For example, according to a research conducted by the Tokyo Metropolitan Board of Education in 2013 (N=555 445), the number of children who

refuse to go to school increases along with grade level. At ages 8–9, 0.26% of children were reported to refuse to go to school, while the percentage rose to 0.47% at ages 9–10. The research also showed that 49% of children who refused to go to school had anxiety and were emotionally confused (Education, 2014). Previous studies have mainly targeted children older than nine years old (Barrett & Turner, 2001; Stallard et al., 2005). However, given the sharp increase in school refusal at ages 9–10, it may be important to conduct preventative interventions with children before this age.

Although several cognitive-behavioural therapy (CBT)-based universal anxiety prevention studies have been conducted in schools, few studies have targeted children younger than 9–10 years old. According to one systematic review, cognitive-behaviour therapy (CBT) is effective for older children and adolescents; however, there is little evidence that it is similarly effective for younger children (S. Cartwright-Hatton et al., 2004). Stallard et al. (2005) evaluated the efficacy and acceptability of the CBT-based program FRIENDS. Their school-based study, conducted with 197 children aged 9–10, included a 10-session cognitive-behaviour therapy program. The results showed significantly lower rates of anxiety and improved levels of self-esteem, though the study

did not include a control group. For anxious younger children, CBT given to their parents has also proven to be helpful (Waters et al., 2009). Furthermore, CBT may be less effective for younger children than for adolescents, given the intellectual demands that it involves (Sam Cartwright-Hatton et al., 2011).

It is important to offer contingency management to children to reinforce newly acquired functional skills (Rapee & Jacobs, 2002). In a pilot study, Rapee and Jacobs (2002) conducted a CBT-based program with parents to prevent anxiety in their preschool-aged children, and showed decreases in the children's anxiety at 12-month follow-up. This may also suggest that parents' consistent encouragement and praise for their children's behaviour could lead to reduced anxiety. Mendlowitz et al. (1999) also point out that parents who participated in the program together with their children became able to facilitate and reinforce their children's use of skills (Mendlowitz et al., 1999). However, it is difficult for some parents to learn CBT and offer the program to their children at home (Sam Cartwright-Hatton et al., 2011). Thus, if CBT programs are offered to children at school, more children will have opportunities to receive the program and learn functional ways of thinking and adaptive behaviour, regardless of their parents'

level of involvement.

Provision of a program at school may also serve as a form of prevention for children who have not yet shown anxiety symptoms. During earlier grades at elementary school, parents and teachers tend to overlook children's anxiety as a general developmental issue (S.-i. Ishikawa et al., 2014). By offering a universal program at school, all children, including those who might develop anxiety at a later time, can acquire coping skills.

For primary school children, Friend for Life, a universal preventative intervention program (Barrett & Turner, 2001) is often used. In addition, the Fun FRIENDS Program, (Barrett, 2007a, 2007b) which is a revised version of the Friend for Life program for preschool children is often used (Pahl & Barrett, 2010). For younger children, it is crucial to make programs accessible and enjoyable. The Fun FRIENDS program teaches children cognitive-behavioural strategies in a play-based manner. In one study (Pahl & Barret, 2010), 263 children aged four to six years old attending preschool participated in the program, and at 12-month follow-up, improvements were found for anxiety, behavioural inhibition (BI), and social-emotional competence for children in the intervention group. Teacher reports revealed significant improvements at

post-intervention for BI and social-emotional strength for children who had received the program. However, results were limited as there was no 12-month follow-up for the control group.

This study implemented a school-based universal trial of a CBT program which is based on the Fun FRIENDS program, with children aged 8–9 years old in two classes of a primary school, and included a control group. This study aimed to examine whether children who participated in the program experienced reductions in anxiety and depression and increases in self-efficacy, and social-emotional strength following the intervention, as measured by reports from children, parents, and teachers.

METHODS

Participants

The participants were 74 (42 male, 32 female) primary school children attending two Grade 3 classes (aged 8–9) in a public primary school in Tokyo, where the author was working as a school counsellor. The school was located in a fairly well-educated region and parents had high expectations of their children. Each class had 37 students: Class 1 was the intervention group (IG) and Class 2 was the control group (CG). The Class 2

teacher was a substitute teacher as the regular teacher was on maternity leave.

Intervention: the Fun FRIENDS program

For this study, a program was developed based on the Fun FRIENDS program. Fun FRIENDS is a modified version of the FRIENDS program. FRIENDS is a school-based intervention for the prevention of anxiety symptoms in primary and middle school children. In a study of 489 children, aged 10–12 years, receiving 12, 75-minute sessions of cognitive-behavioural intervention (Barrett & Turner, 2001), the results suggested that the universal FRIENDS program reduced symptoms of anxiety at post-intervention. Fun FRIENDS is a play-based program for building resilience in kindergarten and grade one children. The program was developed to mirror the content of the FRIENDS program for younger children aged four to six. In the current study, a program was developed in line with the elements of the Fun FRIENDS program, but was also elaborated to adjust for the target age group (ages 8–9) and Japanese school system. For example, sessions were shortened to 45 minutes, whereas the duration of the original program is 90 minutes. Table 1 presents a detailed description of the session content.

Intervention protocol and materials

Class 1 received a series of sessions led by the classroom teacher and the researcher (a clinical psychologist) from September to November 2012. Each session consisted of a lecture, group discussion among pupils, and games and worksheets. To ensure smooth administration, two volunteers who were not mental health professionals supported the intervention. Class 2 was given standard classroom curriculum.

Measures

In this study, children, parents, and teachers completed the following measures to evaluate aspects of the children's mental health.

1) Spence Children's Anxiety Scale (SCAS) and Spence Children's Anxiety Scale-Parent Version (SCAS-P) (Spence, 1998)

The SCAS was used to measure the children's level of anxiety. The validity and reliability of the Japanese version of the SCAS were confirmed for Japanese elementary and secondary school children by Ishikawa et al. (S. Ishikawa et al., 2009). The scale consists of 38 anxiety items and one open-ended, non-scored item. It provides an overall measure of anxiety, together with scores on six subscales, each tapping a specific aspect of child anxiety: separation anxiety disorder (SAD; 6 items), social phobia (SoPh; 6

items), generalized anxiety disorder (GAD; 6 items), panic attacks and agoraphobia (Panic/Ag; 9 items), obsessive-compulsive disorder (OCD; 6 items), and physical injury fears (PhInj; 5 items). The 38 items of the SACS are answered with the following response options: 0 (never), 1 (sometimes), 2 (often), or 3 (always). The parent version of the SCAS (SCAS-P), which consists of the same subscales and questions, was also conducted with parents. Each scale yielded a maximum possible score of 114.

2) Depression Self-Rating Scale for Children (DSRS) (Birleson, 1981)

The DSRS consists of 18 items assessing one's condition over a week. Respondents are asked to indicate the frequency with which each condition occurs on a 3-point scale ranging from 0 (never), 1 (sometimes), to 2 (always). Higher scores on the DSRS indicate greater depression. The 18 depression questions can be summed to provide a total score ranging from 0 to 36.

3) Children's Hope Scale (Hope) (Snyder et al., 1997)

The Children's Hope Scale is a six-item dispositional self-report index validated for use with children ages 8–16. The scale was designed to reflect relatively enduring goal-directed thinking, and positive and high test-retest correlations of the scale support

this intention. The three odd-numbered items tap agency, and the three even-numbered items tap pathways. Agency thoughts reflect perceptions of a desired goal, while pathway thoughts reflect children's perceived capability to produce routes to those goals. The total Children's Hope Scale score is achieved by adding the responses to the six items, with response options of 1 (none of the time), 2 (a little of the time), 3 (some of the time), 4 (a lot of the time), 5 (most of the time), and 6 (all of the time).

4) Strength and Difficulties Questionnaire-Parent Version (SDQ-P) and Teacher Version (SDQ-T) (Goodman, 1997)

The Strengths and Difficulties Questionnaire includes the same 25 items for completion by parents or teachers. Since the self-report version is for young people aged 11–16, this assessment was conducted only with the parents and teachers. The scales assess emotional symptoms (ES; 5 items), conduct problems (CP; 5 items), hyperactivity/inattention (HyIn; 5 items), peer relationship problems (PRP; 5 items), and prosocial behaviour (PB; 5 items). The score for each scale is generated by summing the scores for the five items, thereby generating a scale score ranging from 0 to 10. The scores for the emotional symptoms, conduct problems, hyperactivity, and

peer problems scales can be summed to generate a total difficulties score ranging from 0 to 40; the prosocial behaviour scale score is not incorporated into the total difficulties score. Higher scores represent more emotional and behavioural problems for the emotional symptoms, conduct problems, hyperactivity, and peer problems scales, as well as for the total difficulties score; on the other hand, higher scores represent more positive prosocial behaviours for the prosocial behaviour scale.

Procedure

Questionnaire sheets for parents were placed in an envelope and given to children to pass to their parents. Parents were asked to fill out the questions in their free time.

Classroom teachers collected questionnaires before the session. Children were informed about the questionnaire by the researcher and asked to complete it together in class. All students were asked to sit at their own desk and listen carefully to the instructions that were read by the researcher. The researcher explained the following: 1) there were no right or wrong answers and they were allowed to answer the questions freely, and 2) the answers would not affect their school grades. When students did not understand questions, the researcher explained the meanings of them. Teachers also filled out

questionnaires in their free time.

The researcher was given permission in advance from the school principal, classroom teachers, and parents of the children who would be involved in the study. Written informed consent was obtained after the study was described to parents of participants.

Ethical approval was obtained from the Institutional Review Board of the Graduate School of Medicine at Chiba University, and the trial was registered as UMIN000008798.

Satisfaction with the program

A qualitative evaluation of children's subjective views about Fun FRIENDS was undertaken. Following previous research, 10 aspects of the program were considered important and were evaluated (Stallard et al., 2005) by children on a three-point scale (yes, a little, or no).

Statistical analyses

We used IBM Statistical Product and Service Solutions (SPSS) 19 for all analyses.

To examine the statistical significance of the intervention, children's, parents', and teachers' pre-intervention scores were compared with their post-intervention scores and

with the control group for each of the dependent measures.

RESULTS

Preliminary analyses

A total of 74 children in one school completed the assessments. Of these, two children were absent when the questionnaire was administered, and parents and a teacher who did not turn, complete in the questionnaire sheet were assumed as a dropout from this research. Matched pre- and post-data were therefore available for 34 to 37 individuals (92.00%–100% of the eligible sample) in the intervention group, and 28 to 37 individuals (76.00%–100% of the eligible sample) in the control group. Table 2 displays the means, standard deviations, and number of data points for each dependent measure, at pre- and post-intervention.

Preliminary analyses were conducted to ensure that groups of participants in each condition (intervention, control) did not differ from each other. Comparisons across a series of one-way ANOVAs revealed no significant differences in pre-intervention means across conditions on the SCAS ($F(1,70)=0.26, p=0.61$), DSRS-C ($F(1,70)=0.11, p=0.75$), Hope ($F(1,70)=0.41, p=0.84$) for children, SCAS total score for

Parents ($F(1,61)=2.53, p=0.12$), SCAS-P-SAD ($F(1,61)=1.49, p=0.23$), SCAS-P-PhInj ($F(1,61)=0.56, p=0.46$), SCAS-P-GAD ($F(1,61)=0.20, p=0.89$), SDQ Total Difficulties for Parents ($F(1,60)=0.55, p=0.46$), SDQ for Teachers-ES ($F(1,70)=1.93, p=0.17$), SDQ-T-CP ($F(1,70)=1.64, p=0.20$), SDQ-T-PRP ($F(1,70)=0.001, p=0.97$), and SDQ-T-PB Strengths ($F(1,70)=1.12, p=0.29$).

For the parent reports, there were significant differences between the intervention group and the control group on the SCAS-P-Soph ($F(1,61)=3.54, p<.1$), SCAS-P-OCD ($F(1,61)=2.90, p<.1$), and SCAS-P-panic/Ag ($F(1,61)=4.16, p<.05$). On the SDQ-P-PB Strengths, children in the intervention group scored significantly higher than children in the control group at pre-intervention ($F(1,60)=4.55, p<.05$). For the teacher reports, there were significant differences between the intervention group and the control group on the SDQ-T Total Difficulties ($F(1,70)=3.09, p<.1$) and SDQ-T-HyIn ($F(1,70)=3.00, p<.1$). Therefore, the change from pre-intervention to post-intervention was calculated, and these two change amounts were compared by t-test. For the others, a 2 (time: pre, post) \times 2 (group: intervention, control) mixed factorial ANOVA was performed.

Sub-scale scores that were found to have significant interactions between group and

time are presented in Table 3.

Children's reports

To examine the effect of the intervention, participants' pre-intervention scores were compared with their post-intervention scores on each of the dependent measures. A 2 (time: pre-intervention and post-intervention) \times 2 (group: intervention and control) mixed factorial ANOVA was performed. A significant interaction was not found between group and time for the SCAS ($F(1,70)=0.17$, $p=0.68$), DSRS ($F(1,70)=0.43$, $p=0.84$), or Hope ($F(1,70)=0.28$, $p=0.60$).

Parents' reports

For the SCAS-P, a 2 (time: pre, post) \times 2 (group: intervention, control) mixed factorial ANOVA was performed. A significant interaction was found between group and time ($F(1,61)=10.18$, $p<.01$). The intervention group demonstrated a significant decrease on the SCAS-P compared with the control group. The results indicated a simple main effect of time for the intervention group ($F(1,34)=8.39$, $p<.01$), but not the control group ($F(1,27)=2.89$, $p=0.10$).

Inspection of the means indicated that mean scores on the SCAS-P in the intervention

group significantly decreased from pre-intervention (15.66) to post-intervention (12.43).

For the SCAS-P-GAD, one of the six sub-scales of the SCAS-P, a 2 (time: pre, post) \times 2 (group: intervention, control) mixed factorial ANOVA was performed. A significant interaction was found between group and time ($F(1,61)=4.09, p<.05$). The results indicated a simple main effect of time for the intervention group ($F(1,34)=8.38, p<.01$), but not the control group ($F(1,27)=.000, p=1.00$). Inspection of the means indicated that mean scores of the intervention group significantly decreased from pre-intervention (2.80) to post-intervention (1.94). However, scores of the control group did not change.

For the SCAS-P-Soph, SCAS-P-OCD, and SCAS-P-Panic/Ag, the change from pre-intervention to post-intervention was calculated, and compared by t-test. For the SCAS-P-Soph, changes in the amount indicated a significant difference ($t(61)=2.55, p<.05$). On the SCAS-P-OCD, changes in the amount also indicated a significant difference ($t(61)=2.34, p<.05$). On the SCAS-P-Panic/Ag, changes in the amount also indicated a significant difference ($t(61)=2.03, p<.05$). For these three scores, the intervention group changed more than the control group.

On the SDQ-P Total Difficulties scale, a 2 (time: pre, post) \times 2 (group: intervention,

control) mixed factorial ANOVA was performed. A significant interaction was not found between group and time on the SDQ-P Total Difficulties ($F(1,60)=1.02, p=0.32$). On the SDQ-P-PB Strengths, there were significant differences between the intervention group and control group before the intervention ($F(1,60)=4.55, p<.05$). Therefore, the change amount from pre-intervention to post-intervention was calculated, and these two changes in amount were compared by t-test. For the SDQ-P-PB Strengths, the change amount of these two groups did not indicate a significant difference ($t(60)=.27, p=0.79$).

Teachers' reports

For the teachers' reports, there were significant differences between the intervention group and control group on the SDQ-T Total Difficulties score before the intervention ($F(1,70)=3.09, p<.1$). The change amount from pre-intervention to post-intervention was calculated, and these two change amounts were compared by t-test. The change amount indicated a significant difference for the intervention group ($t(48.61)=4.01, p<.001$). Scores on the SDQ-T in the intervention group significantly decreased from pre-intervention (6.46) to post-intervention (3.95). For the SDQ-T Total Difficulties, a 2 (time: pre, post) \times 2 (group: intervention, control) mixed factorial ANOVA was

performed on the SDQ-T-ES, SDQ-T-CP, and SDQ-T-PRP. A significant interaction for the SDQ-T-ES was found between group and time ($F(1,70)=9.58, p<.005$). The results did not indicate a simple main effect of time for the intervention group ($F(1,36)=1.86, p=0.81$); however, they indicated a simple main effect of time for the control group ($F(1,34)=7.39, p<.01$). The difficulties score of the SDQ-T-ES at post-intervention increased compared to pre-intervention for the control group. In addition, although the intervention group and control group at pre-intervention did not show a simple main effect of group ($F(1,70)=1.93, p=0.17$), these two groups showed a simple main effect of group at post-intervention ($F(1,70)=20.27, p<.001$). The intervention group's score was significantly lower than the control group. On the SDQ-T-PRP, a 2 (time: pre, post) $\times 2$ (group: intervention, control) mixed factorial ANOVA was performed. A significant interaction for the SDQ-T-PRP was found between group and time ($F(1,70)=7.60, p<.01$). There was a simple main effect of time for the intervention group ($F(1,36)=19.78, p<.01$); scores at pre-intervention were lower than scores at post-intervention. However, the control group did not show a simple main effect of time ($F(1,34)=.63, 0.80$). At post-intervention, there was a simple main effect of group

($F(1,70)=5.65, p<.05$). The mean score of the intervention group (.81) was lower than the mean score of the control group (1.66).

For the SDQ-T-HyIn, changes from pre-intervention to post-intervention were calculated and compared by t-test. The change amount indicated a significant difference for the intervention group ($t(58.80)=2.93, p<.005$) compared to the control group.

Satisfaction

A total of 35 children participated in the qualitative evaluation of the Fun FRIENDS Program. The results are summarized in Table 4. Approximately 50% of the children thought Fun FRIENDS was understandable, enjoyable, and helpful. On the negative side, only 40% of the children thought that they had enough time to do the work and 37% of the children thought that they had helped anyone with their new skills. Only 20% of the children thought that they would recommend it to a friend. Finally, 75% of children did not know whether their family thought Fun FRIENDS was good.

DISCUSSION

Although the parent and teacher data had certain limitations, their results showed some improvement in the children. As predicted, according to SCAS-P scores, parents in the

intervention group found that their children became less anxious. However, the result lacked statistical power because of the small amount of data for the control group. A floor effect may also have been present, considering the low score of the group at pre-intervention compared with previous research such as Stallard et al. (2005). On the other hand, the Total Difficulty score of SDQ-T of the intervention group decreased significantly compared to the control group. However, the strength score of the SDQ-T did not change in either group.

The SCAS-P and SDQ-T showed significant effects as a result of the intervention. As for the children, the results showed no significant effects for any scales. This result is compatible with research noting that children under age 11 have not developed the capacity for metacognition and reflective thinking (Durlak et al., 1991). However, Table 4 shows that 94% of children understood the content of CBT based on the question, “Did you understand most of the work?” The fact that the program focused on their behaviour rather than on their cognition could have contributed to the result. Even when the program focused on their cognition, it was specifically centred on simple and concrete cognitive skills such as self-talk. According to the teachers, after they joined

the program, the children started to recognize when their friends needed help and offered them support. This was also seen in the children's evaluation. Eighty percent (the sum of "yes" and "a little" answers) of the children said that they had ever helped anyone with their new skills (Table 4).

The children's changes in school could have been led by teacher changes as well. After they participated in the program, the teachers and children seemed to share the same understanding of situations. Teachers started to pick up on stressful events and present their pupils with functional and dysfunctional ways of thinking. Children also became able to understand the meaning of those options and chose functional thoughts and behaviours. In order for the children to use the skills of the program in their daily interactions with the teacher, the children needed to be supported by their teacher.

Therefore, changes in the children's behaviour were made possible through this support.

When teachers and students learn the same cognitive framework, interaction in the classroom becomes more caring and safe.

The current study has several limitations to be considered. First, the small sample size of the children lowers the validity of the results. Compared to the participants of similar

programs in studies in Australia and the United Kingdom (Barrett & Turner, 2001; Stallard et al., 2005), the number is relatively small. Increasing the number of participants is required for future studies.

Second, the number of questionnaires returned by parents of the control group was also small compared with the intervention group (76% vs. 95%).

Third, this study did not examine the long-term effect of the intervention. The aim of the preventative program is to reduce anxiety and depression of the participants over the long-term to prevent more serious mental health disorders in the future. Future studies should ensure that any effects of the program can be sustained, promote the effects of the program, and conduct evaluations of these features.

Lastly, it is not clear which factor of the program is contributing to the positive result and to what degree. This study, which is based on CBT, offered participants skills related to feelings, thoughts, sensations, self-understanding, cognitive reframing, graded exposure, and problem solving, over 10 sessions.

CONCLUSION

According to the evaluations of the teachers and parents of the intervention group, there

was a significant effect between pre- and post-intervention. However, a mediation analysis was not conducted. If the effect of each factor can be clarified, the number of sessions in the program could be reduced by choosing the most effective content. Clarifying the effects and shortening the intervention duration from 10 sessions at 45 minutes each may enhance participation of parents and teachers in Japanese primary schools.

ACKNOWLEDGEMENTS

Lecturer Yuki Matsumoto of Chiba University has introduced us the Fun FRIEND. The discussions within the Research Centre for Child Mental Development, Chiba University gave us the clue of this study. Professor Masaru Kanetsuki of Hosei University kindly gave the suggestions on the statics method used in the paper and Professor Shin-ichi Ishikawa of Doshisha University kindly gave one of the authors the precious suggestions to conduct this study.

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Table 1. Outline of session content

Session	Content
1	To accept similarities and differences between people
2	Understanding feelings
3	Understanding body clues
4	To become aware of and pay attention to inner thoughts or self-talk
5	Understanding two different kinds of thoughts and coming up with alternative helpful thoughts
6	Creating step-by-step coping plans (graded exposure hierarchies)
7	Learning about role models in our lives
8	Learning about support teams in our lives
9	Learning how to solve our problems with a review of all skills
10	Learning to be happy with our efforts and celebrating the end of the program

Table 2. Means and standard deviations for the SCAS, DSRS, Hope, SDQ, Children, Parent, and Teacher Report

Measure	Intervention Group						Control Group					
	T1: Pre			T2: Post			T1: Pre			T2: Post		
	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N
Children												
SCAS	24.34	20.07	35	26.89	24.04	35	22.16	16.34	37	23.24	20.78	37
DSRS	9.66	6.42	35	9.09	6.33	35	9.22	5.04	37	8.41	5.38	37
Hope	23.86	7.05	35	23.09	8.32	35	24.16	5.76	37	24.27	6.40	37
Parent												
SCAS-P	15.66	14.83	35	12.43	10.49	35	10.86	6.59	28	12.21	7.14	28

SDQ-P Total Difficulties	7.59	5.05	34	7.26	4.86	34	8.54	4.96	28	9.14	5.94	28
SDQ-P Prosocial Strengths	6.91	2.18	34	6.97	2.10	34	5.82	1.76	28	5.75	2.19	28
Teacher												
SDQ-T Total Difficulties	6.46	4.27	37	3.95	4.75	37	8.40	5.09	35	9.03	5.19	35
SDQ-T Prosocial Strengths	5.16	1.86	37	6.03	2.02	37	4.74	1.46	35	5.37	2.43	35

Note. SCAS=Spence Children's Anxiety Scale; DSRs=Depression Self-Rating Scale for Children; Hope=The Children's Hope Scale;

SCAS-P=SCAS Parent version; SDQ-P, SDQ-T=Strengths and Difficulties Questionnaire for Parents, Teachers.

Table 3. Means and Standard Deviations for the total and sub-scales SCAS, SDQ, Parent and Teacher Report

Questionnaire	Intervention Group						Control Group					
	T1: Pre			T2: Post			T1: Pre			T2: Post		
	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N
SCAS-P Total	15.66	14.83	35	12.43	10.49	35	10.86	6.59	28	12.21	7.14	28
Separation anxiety disorder	3.66	3.96	35	3.34	3.77	35	2.61	2.50	28	3.00	2.52	28
Social phobia	3.31	3.30	35	2.43	2.69	35	1.96	2.10	28	2.21	1.91	28
Obsessive compulsive disorder	1.26	2.38	35	0.83	1.69	35	0.46	0.69	28	0.89	1.55	28
Panic attack and agoraphobia	1.14	2.77	35	0.60	1.38	35	0.07	0.26	28	0.36	0.87	28
Physical injury fears	3.49	2.45	35	3.29	2.24	35	3.04	2.28	28	3.04	2.01	28
Generalized anxiety disorder	2.80	2.85	35	1.94	2.17	35	2.71	1.70	28	2.71	1.92	28

SDQ-T Total Difficulties	6.46	4.27	37	3.95	4.75	37	8.40	5.09	35	9.03	5.19	35
Emotional symptoms	0.59	0.98	37	0.41	0.96	37	1.09	1.90	35	1.94	1.83	35
Conduct problems	1.24	1.28	37	0.95	1.43	37	1.71	1.81	35	1.74	2.16	35
Hyperactivity/inattention	2.92	2.34	37	1.78	2.12	37	3.89	2.40	35	3.69	2.64	35
Peer relationship problems	1.70	1.49	37	0.81	1.37	37	1.71	1.43	35	1.66	1.64	35
SDQ-T Prosocial Behaviour Strengths	5.16	1.86	37	6.03	2.02	37	4.74	1.46	35	5.37	2.43	35

Note. SCAS-P=Spence Children's Anxiety Scale Parent version; SDQ-T=Strengths and Difficulties Questionnaire for Teachers.

Table 4. Children's evaluation of Fun Friends (n=35)

	Yes	A little	No	Total	Yes	Yes+A little
Did you understand most of the work?	18	15	2	35	51%	94%
Did you feel safe talking about yourself?	19	12	4	35	54%	89%
Were you listened to?	14	18	3	35	40%	91%
Was it fun?	19	11	5	35	54%	86%
Do you think it has helped you?	17	12	6	35	49%	83%
Did you learn anything new?	17	15	3	35	49%	91%
Were you given enough time to do the work?	14	15	6	35	40%	83%
Did your family think Fun FRIENDS was good?	3	6	1	10	30%	90%
Have you helped anyone with your new skills?	13	15	7	35	37%	80%
Would you recommend it to a friend?	7	17	11	35	20%	69%

Child and Adolescent Mental Health

平成 27 年 12 月 投稿中