Internalizing Behavior Disorders Symptoms Reduction by a Social Skills Training Program among Chinese Students: A Randomized Controlled Trial

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ABSTRACT

The primary aim of this study was to evaluate the effectiveness of a social skills training program for Chinese students' internalizing behavior disorders symptoms reduction. Additionally, the study aimed to clarify whether the use of social skills training program would lead to better outcome than the use of daily usual program. Our RCT study randomly assigned 29 students who were suspected of internalizing behavior disorders to an intervention group in which students received a cognitive- behavioral approach-based social skills training program (n = 16) or to a control group with daily usual program during the period (n = 13). The analyses suggest that students receiving the social skills training program reported a significantly decrease of anxiety, depression and withdrawal symptoms during the end of the intervention and follow-up interval than did students in the control group. Cognitive- behavioral approach-based social skills interventions may help increase the sustainability of outcome after treatment for internalizing behavior disorders symptoms.

Key Words: Internalizing Behavior Disorders, Social Skills, Students, Anxiety, Depression

DOI Number: 10.14704/nq.2018.16.5.1312 **NeuroQuantology 2018; 16(5):104-109**

Introduction

Behavioral disorders include a wide range of disorders in children and adolescents, which range from aggressive and impulsive behaviors to depressed behaviors. Children's behavioral disorders are common and disabling disorders that cause many problems for teachers, families and the children, and are associated with a high prevalence of social problems and negative outcomes. Researchers have found that behavioral disorders are usually observed first in the early years of primary school and peaked between the ages of 8 and 15 (Merikangas *et al*., 2009).

Different classifications for behavioral disorders have been made so far. Achenbach (1991) categorized behavioral disorders into ten classes, including anxiety, depression, physical complaints, social problems, thinking problems, attention problems, breaking law, and aggressive, internalizing and externalizing behaviors. The main feature of internalizing disorders is over-inhibited behaviors that focus on the inside (Achenbach and Rescorla, 2001; Kendall, 2000). Symptoms of the internalizing disorder include high silence, anxiety, depression, inhibition, despair, withdrawal, social isolation and physical complaints (Sanders *et al*., 1999). Internalizing problems can begin very soon (from the second year of life) and develop over time. Studies show that internalizing behaviors gradually increase after the second year of life and are very worrisome in the fifth to sixth years of life.

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Relevant conflicts of interest/financial disclosures: The authors declare that the research was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest.
Received: 14 March 2018; **Accepted:** 7 May 2018

The cause of increased internalizing problems is the development of cognitive abilities over time. The child's access to cognitive abilities enables him to recall negative and anxiety events and anticipate or imagine about them. Children with internalizing disorders are faced with many problems, such as low self-esteem, educational weakness, and communication problems with peers and teachers. The problems also can exacerbate the primary problems and have a negative effect on the adaptation and adaptation of children and adolescents. However, these disorders are less detectable, diagnosable and referral to treatment due to their hidden nature. In other words, because of internalizing disorders do not cause much trouble for locals and many of the symptoms that cause the suffering of children, such as hopelessness, anxiety and inhibition, are merely experienced within the person, these problems are less identifiable and considered clinically (Sanders, Merrell & Cobb, 1999).

Max Cuspie (1996) states that social skill is a technique that teaches individuals to raise their qualifications, to calm down, and to have a good and proper relationship in different situations. Social skills' training is a part of the behavior modification program that is used to correct maladaptive behaviors. Therefore, it seems that increasing social skills is an essential component of preventive and therapeutic interventions for the development of behavioral management capabilities as well as the modification and adaptation of incompatibility scheme that children and young people think of the world around them (Barrera *et al.,* 2002). Van Hasselt (2002) has emphasized on social skills training to prevent the bad behaviors of blind students and create adaptive schemes in them. Wagner (2004) points out that social skills training reduces a large part of students' emotional and social aggression and social disorder. In addition, increasing reinforcements and post-referrals and providing more interactive opportunities for these people will lead to increased social adequacy, self-positive concept, self-esteem, and adaptability. Sacks and Wolffe (2006) emphasizes the use of social skill training to provide the necessary information and abilities for blind and damaged vision teens that will lead to a sense of encouragement and comfort in life situations. In recent years, several studies have examined the impact of social skills training programs on students and adolescents (Gresham *et al.,* 2001; Lyons, 2000). All in all, evidence concerning direct relationships between social skills programs and perceived internalizing behavior problems is weak.

To the best of our knowledge, we found no study that examined the effectiveness of a social skills training program designed to specifically improve the symptoms of Internalizing behavior disorders among Chinese students. Our main purpose is to evaluate the effectiveness of a social skills training program, aimed at improving internalizing behavior disorders symptoms. The program was also intended to decrease internalizing behavior disorders symptoms among Chinese students.

Methods

Study design

Our study conducted a randomized controlled trial in a Chinese mental disorders clinic to evaluate the effectiveness of a social skills intervention. We completed the assessment of study outcomes by self-report measures at before the intervention (Time 1), the end of the intervention (Time 2), and 2 months after the intervention (Time 3). The procedure of this study was approved by the clinic review board and the ethical board of the Nanjing Normal University.

Participants

The eligible criteria for students to participate in this study were: 1) suspected of internalizing behavior disorders (Achenbach, 1991), 2) age range between 9-12 years, 3) speaking Chinese fluently, and 4) having basic reading and writing skills. However, to ensure internal validity we focused only on students suspected of internalizing behavior disorders. We can see the student's enrollment and flow during the study process in Fig. 1. We also informed the students about the aims and procedures of this study, and that, they were invited to participate in the sessions. Participants randomly assigned to an intervention group and a control group.

Intervention

Participants in the intervention group received a cognitive- behavioral approach-based social skills training program during a 16 60-minute session, two sessions per week, in an intellectual development of children and young adults in China. Students in the control group received the daily usual program during the period.

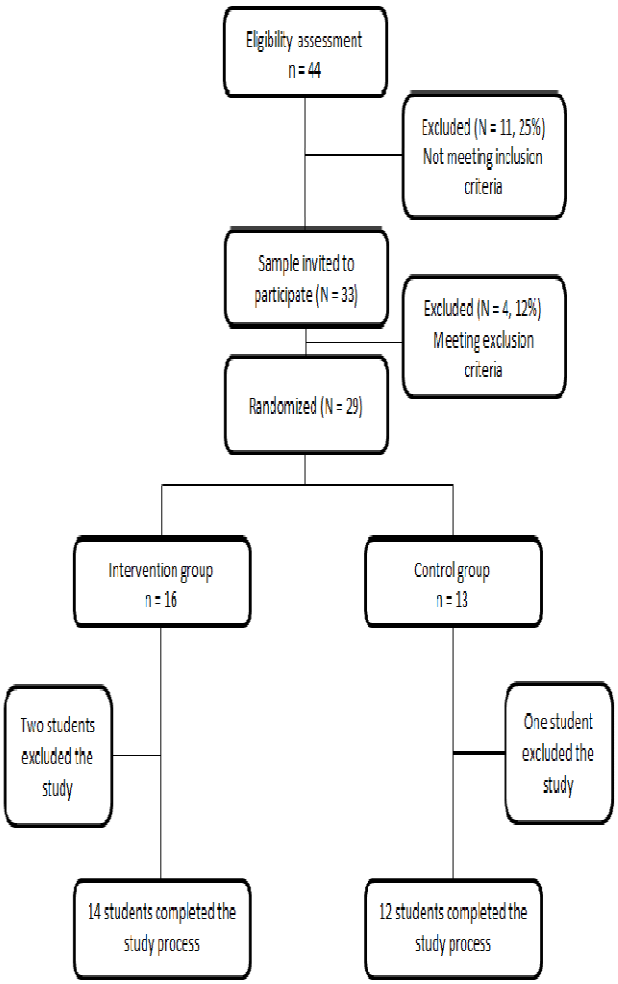

Figure 1. Selection of participants at each stage of the study

Session 1: Familiarizing the members of group with each other, expressing the regulations of group, talking about the important of social skills, people feedback on how to refer, voice tone, and homework on how to introduce yourself and others.
Session 2: Learning how to interchange everyday compliments, starting a conversation and keeping it fit and finishing, and listening with practice.
Session 3: Training how to demand from others, providing a template for how to deal with a person who rejected our demand, and skills for expressing positive and negative feelings along with practice.
Session 4: Training how to express different feelings, such as joy, anger, grief, and skills related to asking for help, and helping others with practice.
Session 5: Describing self-control and accepting the necessary maps using pattern and practice.
Session 6: Describing the behavior and habits eating and the proper use of dining utensils, eating only from own dish, and appropriate decision making for extra foods along with exercise.
Session 7: Training the rejection methods of unreasonable demand and how to "saying no" with practice.
Session 8: The way to criticize, how to deal adequately and effectively with criticism, the skill of apologizing and accepting others to apologize with practice.
Session 9: Teaching and practicing partnership and collaboration at home and how to deal with problems and crises in family with practice.
Session 10: An accountable statement of behavior and acceptance of responsibility for their behavior along with practice.
Session 11: Explaining a positive self-esteem with practice.
Session 12: Explaining respect for others with practice.
Session 13: Explain how to deal with conflict with practice.
Session 14: Describing family discipline with practice.
Session 15: Explaining how to accept the rules and regulations at home with practice.
Session 16: Summarizing and presenting a summary of the presented issues and evaluating the results of the sessions and self-assessment.

Outcome measures

Perceived internalizing behavior problems

To use the scale perceived internalizing behavior problems, this study applied the Child Behavior Checklist (CBCL; Achenbach, Dumenci & Rescorla, 2001). The checklist must be completed by parent, guardian, caregiver or anyone who fully knows the child. The scale covers children's anxiety, depression and withdrawal. Youngstrom *et al.*, (2005) supported the validity and reliability of the checklist.

Perceived social competence

Our study used the scale perceived social competence of the Social Competence Scale (SCS; Felner, Lease & Phillips, 1990), which consists of 47 items in the original version. The scale covers cognitive abilities and skills, behavioral skills, emotional competence, and motivational and anticipatory factors. The scale as a 7-degree Likert ranged from 1 (completely disagree) to 7 (completely agree). The items 3, 6, 8, 9, 11, 12, 15, 16, 21, 25, 26, 28, 32, 36-38, and 43-45 are scored in reverse. The reliability and validity of SCS was

supported by empirical evidence (Zhang, Ke & Wang, 2012).

Results

Our study compared the intervention and control groups in a MANOVA with training (intervention/control) × time (Time 1, Time 2, Time 3) on anxiety, depression, withdrawal and perceived social competence. The average scores and standard deviations of the groups can be seen in Table 2. We can see a significant training-time interaction for anxiety ($F(3,224) = 3.27$, $p < 0.001$, partial $\eta^2 = 0.02$), depression ($F(3,224) = 2.96$, $p < 0.001$, partial $\eta^2 = 0.04$), withdrawal ($F(3,224) = 4.51.27$, $p < 0.001$, partial $\eta^2 = 0.01$) and perceived social competence ($F(3,224) = 6.72$, $p < 0.001$, partial $\eta^2 = 0.05$) dimensions. There are significant differences between the groups on Time 2 and Time 3, but no on Time 1.

The effects on anxiety

A significant decrease was observed in the intervention group (M= 3.41, SD = 0.24 at Time 1, M= 2.15, SD = 0.38 at Time 2, and M= 2.01, SD = 0.29 at Time 3). In the intervention group, there was a significant decrease in the scores from Time 1 to Time 2 (mean difference = 0.38, $p < 0.005$), from Time 1 to Time 3 (mean difference = 0.34, $p < 0.005$), and from Time 2 to Time 3 (mean difference = 0.49, $p < 0.005$). In the control group, we observed a significant increase (M= 3.43, SD = 0.33 at Time 1, M= 3.62, SD = 0.52 at Time 2, and M= 3.65, SD = 0.42 at Time 3).

The effects on depression

We observed a significant decrease in the intervention group on depression (M= 2.16, SD = 0.26 at Time 1, M= 2.01, SD = 0.45 at Time 2, and M= 1.88, SD = 0.36 at Time 3). In the intervention group, there was a significant decrease in the scores from Time 1 to Time 2 (mean difference = 2.51, $p < 0.005$), from Time 1 to Time 3 (mean difference = 1.57, $p < 0.005$), and from Time 2 to Time 3 (mean difference = 2.11, $p < 0.005$). In the control group, we observed a significant increase (M= 2.14, SD = 0.35 at Time 1, M= 2.45, SD = 0.41 at Time 2, and M= 2.66, SD = 0.38 at Time 3).

The effects on withdrawal

We also observed a significant decrease in the intervention group on withdrawal (M= 4.51, SD = 0.66 at Time 1, M= 3.12, SD = 0.36 at Time 2, and M= 3.06, SD = 0.51 at Time 3). In the intervention group, there was a significant decrease in the scores from Time 1 to Time 2 (mean difference =3.41, $p < 0.005$), from Time 1 to Time 3 (mean difference = 2.15, $p < 0.005$), and from Time 2 to Time 3 (mean difference = 2.64, $p < 0.005$). In the control group, we observed a significant increase (M= 4.49, SD = 0.54 at Time 1, M= 4.72, SD = 0.50 at Time 2, and M= 4.83, SD = 0.62 at Time 3).

Discussion

The present study aimed to evaluate a cognitive-behavioral approach-based social skills training program for Chinese students aged 9-12 years to reduce internalizing behavior disorders symptoms.

Table 2. Interaction effects between intervention and control group

	F	Partial η^2	Group	Time 1	Time 2	Time 3
Anxiety	4.11**	0.02	Intervention	3.41 (0.24)	2.15 (0.38)	2.01 (0.29)
			Control	3.43 (0.33)	3.62 (0.52)	3.65 (0.42)
Depression	3.91*	0.02	Intervention	2.16 (0.26)	2.01 (0.45)	1.88 (0.36)
			Control	2.14 (0.35)	2.45 (0.41)	2.66 (0.38)
Withdrawal	5.22**	0.03	Intervention	4.51 (0.66)	3.12 (0.36)	3.06 (0.51)
			Control	4.49 (0.54)	4.72 (0.50)	4.83 (0.62)
Perceived social competence	7.72*	0.04	Intervention	194.2 (9.23)	223.1 (7.22)	232.3 (8.33)
			Control	196.1 (9.78)	185.3 (8.04)	181.5 (8.16)

Table 3. Simple effects between the groups on Time 1, Tim 2 and Time 3 scores

	Time 1				Time 2				Time 3			
	F	df	ρ	η^2	F	df	ρ	η^2	F	df	ρ	η^2
Anxiety	7.21	1/27	0.423	0.00	8.55	1/27	0.013	0.04	7.33	1/27	0.000	0.03
Depression	5.34	1/27	0.536	0.00	10.71	1/27	0.000	0.00	9.46	1/27	0.000	0.00
Withdrawal	6.18	1/27	0.487	0.00	6.66	1/27	0.024	0.05	6.11	1/27	0.002	0.06
Perceived social competence	4.33	1/27	0.622	0.00	9.28	1/27	0.077	0.00	9.72	1/27	0.001	0.00

Results indicate that students who received a standardized version of the cognitive- behavioral approach-based social skills training program experienced a significant reduction of anxiety, depression and withdrawal symptoms during the 8-week program period than did students in a control group. We observed a 2-month significant effect at follow up. These findings support the results of previous studies that reported the effectiveness of social skills training on reducing internalizing behavior disorders symptoms (Vyskocilova & Prasko, 2012; Cook *et al*., 2008; Harrell, Mercer & DeRosier, 2009; Maag, 2006; Hernandez, 2006; Gresham, Van & Cook, 2006).

To explain the effectiveness of the social skills program in students' internalizing behavior disorders symptoms reduction, many authors and scholars have suggested that therapies used in social skills training programs are an appropriate way to improve communication and social skills as well as improve anxiety, depression and withdrawal symptoms (Chiu *et al*., 2009).

In order to provide another explanation, we can point out the importance of depicting the concepts learned in the form of the presentation during the training sessions (Jones, 1996; Schechner, 2010; Lindkvist, 2015). In internalizing behavioral disorders, patients report that there are problems in establishing social relationships. Social isolation was reduced in students with internalizing behavioral disorder by participating in a demonstrative activity and experience of positive human relationships. In addition, this demonstration can provide an opportunity to replicate and experience the situations and realities of life. Hence, improvements in symptoms of internalizing behavioral disorders in students occur due to emotional drainage. The show has the power of refining and purifying the negative and suppressed emotions. There is no doubt that the inner purification of negative, suppressed and unconscious feelings and emotions can lead to improved symptoms of internalizing disorders. Perhaps the process of outsourcing emotions and emotional refinement can be the most effective process of therapeutic programs. During the training program, students were able to gain a deeper understanding of the emotions to exacerbate the significant aggression experienced in relation to individuals or topics within the framework of the therapeutic process, without worrying about being punished and judged. This can be seen as an effective factor in the "social skills" therapeutic program effects.

In sum, we can say that social skills training consists of techniques that help individuals to achieve meaningful interpersonal relationships and correct communication, assess himself, and reward own adaptive behaviors (Harrell, Mercer & DeRosier, 2008). Undoubtedly, failing to achieve social skills can lead to obvious damage to emotional, mental, psychological and personality balance. Children who did not learn social skills are unable to establish proper relationships, express oneself, compete healthily, cooperate, decide, and defend their rights. Our results by cognitive- behavioral approach-based social skills training for students showed that students can be helped in the process of socialization and the establishment of a proper social connection with the community, thereby reducing internalizing behavior disorders symptoms.

Acknowledgements

This article is one of the stage achievements of the key project of the philosophy and social science of University of Jiangsu (No. 2017ZDIXM026). Thanks to Emate for their language service.

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