Effect of a Life Skills-based Substance Abuse Prevention Curriculum on Social Competence in the Afterschool Setting

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Abstract

Social competence level is a protective factor against substance abuse, especially for at-risk youth. Rural youth are a group at higher risk for substance abuse, including youth in the rural county in this study. The purpose of this study was to determine the effect of Footprints for Life™, a classroom-based tobacco/alcohol prevention curriculum, on early elementary-aged school student participants' social competence when delivered in an afterschool setting. Using a one-group/pre-test post-test design, adult afterschool program mentors observed and rated student participants' social competence behaviors, such as healthy communication, emotional regulation, and constructive handling of peer pressure. A series of paired samples t-tests revealed statistically significant differences between eleven mentor-observed social competence measures of student participants before and after the program. Results suggest that a life skills-based curriculum using puppets to tell a real-world story that teaches social competence skills can be effective in an afterschool environment. For both afterschool program directors and substance abuse prevention specialists, the age of student participants is crucial for developing social skills and resilience for coping with future negative peer pressure and pressure to use substances. Therefore, social competence-building interventions

can be considered for implementation as effective afterschool substance abuse prevention programs.

Keywords: Social competence, Substance abuse prevention, Afterschool, Rural youth, Tobacco and alcohol cessation, Life skills-based curriculum

Introduction

Social competence, characterized by the display of positive interpersonal skills and behaviors leading to effective peer relations (Jackson & Cunningham, 2015), develops during infancy and continues to build into childhood, adolescence, and adulthood (Vahedi, Farrokhi, & Farajian, 2012). For students, pro-social behaviors, emotional regulation, and positive social skills interact with cognitive and academic skills to enhance school success. Specifically, social competence, through academic task management and positive interpersonal relationships, is essential for learning. After teachers in one study reported observed social competence behaviors of kindergarten students from low-income communities, the students were tracked to early adulthood. Low social competence levels were correlated to those students' future substance use and crime behaviors (Jones, Greenberg, & Crowley, 2015). Overall, those less socially competent seem to possess lower resiliency and increased behavioral problems that place them at higher risk for substance abuse, as they move into middle and high school (Vahedi et al., 2012).

Students with strong social competence skills, on the other hand, seem to be more emotionally resilient and more successful in school (Vahedi et al., 2012). Their higher levels of critical thinking skills and emotional self-awareness may contribute to their academic success (Denham, Bassett, Zinsser, & Wyatt, 2014). During the elementary school years, students begin to develop a sense of self as they build peer relationships and participate in peer groups (Jackson & Cunningham, 2015). As they progress into adolescence, social competence and cooperation skills may have a significant impact on overall psychological wellbeing (Holopainen, Lappalainen, Junttila, & Savolainen, 2012). Possessing strong social skills may decrease the likelihood for social isolation leading to improved physical and psycho-social health outcomes (Holt-Lunstad, Smith, & Layton, 2010).

Therefore, education and training to assist with developing social competence and life-based social skills may also address risk factors for substance abuse. Studies suggest life and social skills education to improve social competence, especially for younger students, can reduce substance use, including alcohol and tobacco use (Botvin & Griffin, 2014; Botvin, 2000). Life and social skills training interventions have been researched over the years and have demonstrated effectiveness in youth substance abuse prevention (Botvin & Griffith, 2014) with one shown to have some longer-lasting effects (Weichold & Blumenthal, 2016). Weichold & Blumenthal (2016) noted that frequency of use and proneness of

use decreased over a four-year time period. Life skill interventions focused on the combination of emotions, coping, and healthy decision-making also seem to improve health behaviors (Modecki, Zimmer-Gembeck, & Guerra, 2017). In a review of school-based social-emotional interventions for student health promotion, social skill-building programs did show some promise (Sancassiani et al., 2017).

When a life skills intervention was used in an afterschool program for rural elementary school students, pro-substance use attitudes were diminished, and social skills improved in participants (Tymes, Outlaw, & Hamilton, 2016). However, one review showed that interventions which involved a curriculum teaching behavioral and emotional self-regulation along with cognitive skills seemed to reduce illicit drug use intention only minimally (Faggiano, Minozzi, Version, & Buscemi, 2014). An analysis of school-based anti-tobacco education curricula with a social competence and social influence emphasis, though, demonstrated a strong effect on participants remaining non-smokers after one year (Thomas, McLellan, & Perera, 2015). Further, programs that addressed internalizing and withholding of expression of feelings and emphasized diversity in relationships can build social competence and, in turn, potentially delay or slow the onset of substance use initiation (Lillehoj, Trudeau, Spoth, & Wickrama, 2004; Tran & Lee, 2011).

In a rural Missouri county, youth past 30-day substance use rates are higher than the state average for tobacco, alcohol, inhalants, and 'rode with someone drinking alcohol.' One-fifth of county youth reported being in a fight over the past year, and about 60% engaged in ridiculing others. In addition, a higher proportion of county youth than the state average reported easy access to alcohol, tobacco, and prescription drugs as well as a low perception of risk for drinking alcohol (Behavioral Health Epidemiology Workgroup, 2016).

The National Registry of Evidence-based Programs' (NREPP) Footprints for Life™ is a classroom-based curriculum delivered by teachers as six 40-minute long lessons over six weeks. The curriculum aims to teach elementary-aged students about appropriate life and social skills, such as healthy decision-making, handling peer pressure, refusal skills, and non-violent conflict resolution, in order to make healthy decisions in the future. The curriculum features puppets that play soccer and experience real-world scenarios. Short lessons each week on sharing feelings, problem-solving, decision-making, drug prevention, coping, and cultural competence precede a scenario in which the puppets apply the learnings and dramatize healthy decision-making. Participants are then given the opportunity to practice the learnings with their peers and the instructors in a fun, non-judgmental atmosphere. Each lesson ends with a short check for understanding and a reinforcing homework assignment (NREPP, n.d.).

Although the curriculum was developed to be taught in the classroom, the Footprints for Life™ curriculum in the present study was taught by trained, community-based, drug prevention specialists. A local substance abuse prevention

agency provided a conference room and support for the training, and local anti-drug coalition volunteers obtained their training and certification as instructors in the curriculum. The curriculum lessons were delivered each week during an afterschool program in the largest school district in the rural county mentioned previously as being at high risk for youth substance abuse. Because social competence level may affect substance use, and youth in this county were at high-risk, the purpose of this study was to determine the effect of the Footprints for Life™ program on early elementary school student participants' social competence when delivered in an afterschool setting.

Methods

Participants

All five adult mentors (all female, white, and between the ages of 19–22) for the early elementary school-aged student groups (each mentored/supervised one group of ~20 students) in an afterschool program in the largest school district in the county were asked to participate in this study. All agreed, signed informed consent forms, and were trained during an afternoon-long session in observation and documentation of child behavior using the instrument that was provided with the curriculum.

All early elementary-aged students in this afterschool program were also asked to participate in the study. Following afterschool program administrator consent, parent/guardian consent, and student assent, 90/94 (95.7%) agreed to participate. Because of school district policy, demographics of the students could not be provided.

Instrument

Provided with the curriculum was the 25-question Footprints for Life™ Teacher Pre-Post Survey. It was used to rate the pre-post-social competence level of each participating student in each mentor's group. The mentors rated each of the participants in their small group on participant level of demonstrated behaviors such as prosocial communication, emotional regulation, and dealing with peer pressure (NREPP, n.d.) both before and after the program. Student participants were rated on a scale of Not at all, A little, Moderately well, Well, or Very well for behaviors observed by the mentors, such as: "Can accept things not going his/her way", "Is able to say 'no' to peers," "Copes well with failure," Takes responsibility for own actions," "Very good at understanding other people's feelings," and "Socializes with a wide variety of classmates". Table 1 lists the behaviors that were rated.

Procedure

After Institutional Review Board approval and one month in advance of program initiation, five drug prevention specialists from a prevention agency were trained in curriculum implementation by the Footprints for Life™ program's certified instructor-trainer. After the two-day training of the trainers, the newly qualified instructor-trainers held trainings for 10 more community-based volunteer prevention specialists from the local anti-drug coalition. The volunteer prevention specialists would then teach the afterschool lessons in five teams of two while supervised by the instructor-trainers to ensure fidelity to the curriculum. The volunteer community-based prevention specialists met with the instructor-trainers before and after each lesson to prepare and review the presentations as well as to receive feedback on their instruction.

All five adult mentors completed the confidential pre-scales for each student participant in their mentoring group immediately before the first curriculum lesson. Mentors had observed each student in their mentoring group for two weeks before completing the pre-scale. Mentors were asked to take the pre-scale home and, in a quiet time, reflect on each student participant's prior individual behaviors during the time mentors had been working with him or her in the afterschool program. One day each week for six weeks, Footprints for Life™ was delivered as a 40-minute long afterschool program session by the volunteer community-based prevention specialists. The lessons were presented immediately following recreation time and snack time, about halfway through the two-hour long afterschool program held at a recreation center near the school. The afterschool program schedule also included homework help, game time, small group socialization, and arts/crafts.

During Lesson 1 of the curriculum, the first day of soccer practice for the puppet team, appreciating team mates, appropriate expression of feelings, and the use of I-messages were integrated into the scenario. In Lesson 2, the team was in conflict over team name selection, and respect and conflict resolution skills were taught. Lesson 3 found the puppets in a dilemma due to poor decision-making. The coach talked to a player about the bad choices she made when she was a player and succumbed to peer pressure. Consequences of poor decisions and drug use were examined. In Lesson 4, tobacco use and other drug use were explored as unhealthy choices for the puppets. A player was caught smoking by the team, and the puppets were taught about legal and illegal drugs, such as alcohol and cigarettes, and the dangers associated with them. A team member sustained an injury before the championship game, and coping skills to address feelings of disappointment were addressed during Lesson 5. The championship game was played in Lesson 6 with diversity and teamwork examined. The players utilized learnings from the previous lessons to encourage a teammate who considered quitting. This final lesson reinforced and summarized the overall curriculum and provided more real-life examples for participants to draw upon in the future.

Following the last lesson of the curriculum, mentors completed the post-scales in a similar fashion as they completed the pre-scales.

Analysis

Responses to each item were coded as 1 = Not at All, 2 = A Little, 3 = Moderately Well, 4 = Well, 5 = Very Well. Higher scores reflected greater social competence. Descriptive statistics and measures of central tendency were computed on all items. A series of paired samples *t*-tests were computed to determine if there were statistically significant differences between the 25 pre-test and post-test scores.

Results

For all items on both the pre- and post-assessments, mean scores were greater than 3.00, reflecting at least a "Moderately Well" level of social competence. However, the lowest score was on the pre-test for the item "Is aware of his/her behavior" with a mean of 3.07 (SD = 1.15). This item was tied with multiple other items for the lowest mean score of 3.27 (SD = 1.14) on the post-test. There were two items where participants were assessed with mean scores greater than 4.00 on the post-test. These items were "Is accepting of peers' differences" and "Acts friendly toward others" with mean scores of 4.02 (SD = 0.89) and 4.04 (SD = 1.06), respectively. See Table 1.

A series of paired samples *t*-tests for each of the 25 items was used to identify significant pre-test and post-test differences. There were 11 items addressing the themes of emotional self-regulation and peer cooperation with statistically significant differences between pre-test and post-test scores. See Table 2 for *t*-test results for significant items.

Discussion

Results of the present study appear to provide some evidence to support the promising effects of school-based social skill interventions. Participants scored at least a "Moderately Well" level of social competence on both pre-test and post-test. Although they self-reported social competence scores above average, participants lived and attended school in an environment with high substance abuse rates. It is hoped that they maintain at least this current level of social competence as they move through the higher grades.

Mentor-observed social competence behaviors that could be grouped into the themes of emotional self-regulation and peer cooperation improved after implementing the program. Improvement was seen with respect to emotional self-regulation and peer cooperation behavioral themes, such as coping well with failure, suggesting alternate ideas when faced with negative peer pressure, expressing needs and feelings, calming down when excited, controlling temper during disagreement, sharing materials, resisting peer pressure in a risky

situation, cooperating with peers, helping others, listening to others' points of view, and giving suggestions and opinions without being bossy. Improvement in these social competence behaviors may have been due to the curricular focus on cooperation skills, appropriate expression of feelings, and valuing differences. Teamwork and collaboration as well as conflict resolution skills were covered in Lessons 6 and 2, expressing feelings using I-messages was covered in Lesson 1, and appreciation of diversity was covered in Lessons 1 and 6. Specifically, cooperation (Holopainen, Lappalainen, Junttila, & Savolainen, 2012), expressing feelings, and valuing diversity (Lillehoj, Trudeau, Spoth, & Wickrama, 2004; Tran & Lee, 2011) have been associated in the literature with increased social competence. Increased social competence is correlated with reduced substance abuse risk. Also, curricular interventions for youth that included instruction in healthy emotions, coping skills, and problem-solving/decision-making increased their overall health-promoting behaviors (Modecki, Zimmer-Gembeck, & Guerra, 2017). Again, the curriculum in the present study included these foci. Emotions were covered in Lesson 1, coping in Lesson 5, and decision-making in Lesson 3.

Although developed for the classroom setting, results of the present study provide some confirmation that the curriculum may also be effective in the afterschool setting. Consistent with the results of a previous study of an elementary afterschool program's life skills intervention (Tymes, Outlaw, & Hamilton, 2016), the present study also demonstrated improved social skills in participants. There are a couple of possible reasons for this curriculum's success in the afterschool setting. Student participants in small groups with their community-based prevention specialists were placed in various spaces (gymnasium sections, fitness room, outdoor picnic tables, and recreation room) of a busy recreation center facility that housed the afterschool program. The learning environment was informal and casual with no desks or assigned seating like a classroom. Even in such a relaxed atmosphere, the ongoing dramatic storyline of the puppet soccer team may have assisted in keeping student participant attention and encouraging their participation over multiple weeks of the curriculum. However, this is a correlation not a causation. Factors such as other elements of the afterschool program, time spent with the mentors, and participant maturity over time may have played roles. In addition, the volunteer community-based prevention specialists, although not certified classroom teachers, were trained and participated in pre- and post-lesson sessions to assist in fidelity to the curriculum.

All in all, possibly due to the strong curricular focus of the present intervention on several specific concepts associated with social competence, significant improvements were observed in student participants in eleven social competence behaviors. The classroom-based curriculum was also effective in the afterschool setting of this present study. Demonstrating appropriate life and social skills as well as healthy decision-making may lead to lower risk for future substance abuse in these participants (Vahedi et al., 2012).

Conclusion

Opportunities to learn and practice social-emotional skills out of the classroom can indirectly affect success in the classroom as improved social competence contributes positively to academic achievement and overall physical and mental health (Denham, Bassett, Zinsser, & Wyatt, 2014; Holopainen, Lappalainen, Junttila, & Savolainen, 2012; Modecki, Zimmer-Gembeck, & Guerra, 2017). Because of the relaxed setting with many opportunities for peer interaction and small group play, afterschool programs are appropriate and important settings to help students develop life skills and social competence skills. Implementation and evaluation research of social competence interventions for students has been focused on classroom-based programs (Sancassiani et al., 2017). For afterschool program directors and staff, social competence-building programs in the afterschool hours, though, are much needed. More classroom-based interventions may be tried as out-of-school time interventions or created as afterschool or out-of-school interventions, if possible.

Partnering with community-based substance abuse prevention agencies and community anti-drug coalitions or social service/behavioral health organizations can assist with finding evidence-based interventions as well as with providing programming assistance and staff support for social competence-building interventions in the afterschool program. In the present study, a community prevention agency supported instructor training, and a local anti-drug coalition provided staff to help teach the intervention. Community members and organizations then became directly involved in assisting with the afterschool program. Social competence and social-emotional learning are part of positive youth development initiatives that drive many of these youth-serving organizations. These organizations, as resources, can help train afterschool staff and provide consultation services to afterschool program directors in the area of social competence.

Teaching social and life skills during the early elementary years, as in the present study, is also developmentally appropriate. This is the time when students become more involved in peer groups (Jackson & Cunningham, 2015), and peer pressure for substance abuse and other unhealthy behaviors may become more pronounced. For both afterschool program directors and substance abuse prevention specialists, this age is crucial for developing social skills and resilience for coping with future negative peer pressure and pressure to use substances. Adding social competence-building interventions similar to the one in this study should be considered for afterschool prevention programming.

Because the study was limited to only one afterschool program in a county with high rates of substance abuse, results may not be generalizable to other communities. The one-group design, too, was a limitation. A control group for comparison would make results more reliable, and some bias and error may be eliminated. An additional control group implementing the Footprints for Life program in its originally designed classroom setting would also provide insight in

to the effectiveness of the program in alternative settings. Documentation of fidelity to the curriculum using a fidelity checklist, too, would also improve the research procedure. Adding a parent survey to compare to social competence behaviors in the afterschool setting to those demonstrated at home may also be beneficial to determine if learned skills transfer to other environments. Additionally, including a process evaluation component, where Footprints for Life™ course material is reviewed and the implementation process itself is reviewed, may prove valuable in modifying the program and its delivery for future iterations.

A future direction for continued research would include tracking these student participants over time with the possibility of booster sessions to continue to improve social competence levels. It would be interesting to compare social competence levels to any substance abuse behaviors exhibited as students move to higher grade levels where there may be more social pressure to use substances. Future exploration into additional determinants of drug abuse problems also is warranted. An examination of socioeconomic status, literacy levels, family situation, and other factors that may be associated with drug abuse and act as confounding variables may not only shed light on the problem at hand, but also may guide Footprints for Life™ planners and educators toward any necessary program modifications and provide support for additional lessons.

Student participants in this study lived in a community with high rates of youth alcohol and tobacco use as well as high rates of involvement in physical fights (Behavioral Health Epidemiology Workgroup, 2016). Previous research has suggested interventions to improve social competence and life skills can prevent or reduce future tobacco and alcohol use (Botvin & Griffin, 2014; Botvin, 2000; Weichold & Blumenthal, 2016; Thomas, McLellan, & Perera, 2015). Therefore, it is hoped that improved social competence skills in these student participants will have a positive effect on prevention of substance abuse, especially for tobacco and alcohol.

Table 1

Footprints for Life™ Teacher Pre-Post Survey Frequencies

		Not at All n(%)	A Little n(%)	Moderately Well n(%)	Well n(%)	Very Well n(%)	Mean Score	SD
Can accept things not going his/her way	Pre	13(14.4)	22(24.4)	9(10.0)	30(33.3)	16(17.8)	3.13	1.34
	Post	7(8.3)	22(26.2)	14(16.7)	23(27.4)	18(21.4)	3.27	1.29
Is able to say “no” to peers	Pre	3(3.3)	16(17.8)	13(14.4)	40(44.4)	18(20.0)	3.61	1.07
	Post	0(0.0)	13(15.5)	18(21.4)	30(35.7)	23(27.4)	3.75	1.03
Copes well with failure	Pre	8(8.9)	19(21.1)	24(26.7)	28(31.1)	11(12.2)	3.15	1.16
	Post	2(2.4)	20(23.8)	21(25.0)	22(26.2)	19(22.6)	3.42	1.15

Is respectful and considerate of others	Pre	7(7.9)	9(10.1)	20(22.5)	25(28.1)	28(31.5)	3.57	1.28
	Post	3(3.6)	15(18.1)	18(21.7)	21(25.3)	26(31.3)	3.62	1.21
Is able to suggest alternate ideas when faced with negative peer pressure	Pre	2(2.2)	16(17.8)	33(36.7)	35(38.9)	4(4.4)	3.25	0.88
	Post	1(1.2)	13(15.5)	29(34.5)	27(32.1)	14(16.7)	3.47	0.99
Accepts legitimate imposed limits	Pre	7(7.8)	10(11.1)	14(15.6)	41(45.6)	18(20.0)	3.55	1.13
	Post	5(6.0)	11(13.1)	12(14.3)	30(35.7)	26(31.0)	3.72	1.21
Expresses needs and feelings appropriately	Pre	8(8.9)	10(11.1)	25(27.8)	32(35.6)	15(16.7)	3.38	1.14
	Post	3(3.6)	15(17.9)	15(17.9)	28(33.3)	23(27.4)	3.63	1.17
Thinks before acting	Pre	9(10.0)	18(20.0)	16(17.8)	30(33.3)	17(18.9)	3.31	1.27
	Post	4(4.8)	21(25.0)	24(28.6)	18(21.4)	17(20.2)	3.27	1.19
Resolves peer problems on his/her own	Pre	5(5.6)	15(16.7)	32(35.6)	32(35.6)	6(6.7)	3.20	1.00
	Post	1(1.2)	18(21.4)	22(26.2)	30(35.7)	13(15.5)	3.43	1.03
Takes responsibility for own actions	Pre	9(110.0)	12(13.3)	20(22.2)	37(41.1)	12(13.3)	3.33	1.17
	Post	5(6.0)	14(16.7)	18(21.4)	30(35.7)	17(20.2)	3.48	1.17
Can calm down when excited or all wound up	Pre	12(13.3)	19(21.1)	18(20.0)	23(25.6)	18(20.0)	3.15	1.33
	Post	4(4.8)	17(20.2)	17(20.2)	23(27.4)	23(27.4)	3.52	1.23
Can wait in line patiently when necessary	Pre	8(8.9)	16(17.8)	18(20.0)	18(20.0)	30(33.3)	3.51	1.35
	Post	7(8.3)	13(15.5)	12(14.3)	20(23.8)	32(35.6)	3.68	1.35
Very good at understanding other people's feelings	Pre	4(4.4)	16(17.8)	29(32.2)	31(34.4)	10(11.1)	3.30	1.02
	Post	1(1.2)	17(20.2)	26(31.0)	21(25.0)	19(22.6)	3.48	1.09
Is aware of the effect of his/her behavior	Pre	9(10.0)	19(21.1)	29(32.2)	23(25.6)	10(11.1)	3.06	1.14
	Post	2(2.4)	23(27.4)	26(31.0)	16(19.0)	17(20.2)	3.27	1.14
Plays by the rules of the game	Pre	5(5.6)	13(14.4)	14(15.6)	34(37.8)	24(26.7)	3.63	1.16
	Post	0(0.0)	12(14.3)	16(19.0)	30(35.7)	26(31.0)	3.83	1.03
Controls temper when there is a disagreement	Pre	15(16.7)	16(17.8)	16(17.8)	26(28.9)	17(18.9)	3.13	1.37
	Post	5(6.0)	18(21.4)	11(13.1)	29(34.5)	21(25.0)	3.51	1.25

Socializes with a wide variety of classmates	Pre	7(7.8)	25(27.8)	25(27.8)	18(20.0)	15(16.7)	3.07	1.21
	Post	3(3.6)	20(23.8)	25(29.8)	21(25.0)	15(17.9)	3.30	1.13
Shares materials with others	Pre	2(2.2)	11(12.2)	23(25.6)	44(48.9)	10(11.1)	3.54	0.92
	Post	1(1.2)	4(4.8)	26(31.0)	33(39.3)	20(23.8)	3.80	0.90
Can resist peer pressure in risky situation	Pre	4(4.4)	16(17.8)	26(28.9)	38(42.2)	6(6.7)	3.25	0.98
	Post	0(0.0)	15(17.9)	30(35.7)	22(26.2)	17(20.2)	3.49	1.01
Cooperates with peers without prompting	Pre	4(4.4)	14(15.6)	24(26.7)	37(41.1)	11(12.2)	3.41	1.05
	Post	0(0.0)	10(11.9)	27(32.1)	22(26.2)	25(29.8)	3.74	1.02
Is helpful to others	Pre	1(1.1)	14(15.7)	27(30.3)	27(30.3)	20(22.5)	3.51	1.10
	Post	1(1.2)	11(13.1)	19(22.6)	25(29.8)	28(33.3)	3.81	1.08
Is accepting of peers' differences	Pre	0(0.0)	4(4.4)	26(28.9)	40(44.4)	20(22.2)	3.84	0.83
	Post	0(0.0)	5(6.0)	17(20.2)	33(39.3)	29(34.5)	4.02	0.89
Listen to others' points of view	Pre	3(3.3)	18(20.0)	23(25.6)	36(40.0)	10(11.1)	3.31	1.04
	Post	1(1.2)	16(19.0)	20(23.8)	26(31.0)	21(25.0)	3.60	1.10
Can give suggestions and opinions without being bossy	Pre	11(12.2)	15(16.7)	21(23.3)	25(27.8)	18(20.0)	3.23	1.31
	Post	6(7.1)	15(17.9)	17(20.2)	21(25.0)	25(29.8)	3.52	1.28
Acts friendly toward others	Pre	2(2.2)	9(10.0)	18(20.0)	26(28.9)	35(38.9)	3.90	1.12
	Post	1(1.2)	7(8.3)	18(21.4)	20(23.8)	38(45.2)	4.04	1.06

Notes. 1 = Not at All, 2 = A Little, 3 = Moderately Well, 4 = Well, 5 = Very Well; Pre-test n = 90, Post-test n = 84.

Table 2

Mean Scores for Emotional Self-Regulation and Peer Cooperation at Pre-Test and Post-Test

	Pre Mean	**Pre SD**	**Post Mean**	**Post SD**	**df**	**t**	***p***
Copes well with failure*	3.15	1.16	3.42	1.15	83	-2.28	*.025*
Is able to suggest alternate ideas when faced with negative peer pressure*	3.25	.877	3.47	.988	83	-2.19	*.032*
Expresses needs and feelings appropriately*	3.38	1.14	3.63	1.17	83	-2.16	*.034*

Can calm down when excited or all wound up**	3.15	1.33	3.52	1.22	83	-2.68	*.009*
Controls temper when there is a disagreement***	3.13	1.37	3.51	1.25	83	-3.43	*.001*
Shares materials with others *	3.54	.924	3.80	.902	83	-2.38	*.019*
Can resist peer pressure in risky situation *	3.25	.980	3.49	1.01	83	-2.18	*.032*
Cooperates with peers without prompting**	3.37	1.05	3.74	1.02	83	-3.15	*.002*
Is helpful to others *	3.51	1.10	3.81	1.08	83	-2.57	*.012*
Listen to others' points of view *	3.31	1.04	3.60	1.10	83	-2.24	*.028*
Can give suggestions and opinions without being bossy **	3.23	1.31	3.52	1.28	83	-2.66	*.009*

* $p \leq .05$, ** $p \leq .01$, *** $p \leq .001$

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