Focusing on Teacher-Children Relationship Perception and Children's Social Emotional Behaviors - the PATHS Preschool Program

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ABSTRACT

The aim of study was to examine the effectiveness of PATHS program on children's and teachers' behaviors by evaluating perceptions of children and teachers in regard to their relationships with each other. The sample included 129 children (5-6 aged) and 28 teachers in the intervention group and 114 children (5-6 aged) and 30 teachers in the comparison group. The Classroom Atmosphere Rating Scale, the Teaching Style Rating Scale, Teacher Self Report Assessment, Head Start Competence Scale, Student–Teacher Relationship Scale-STRS, and Semi-Structured Play Interview were used to gather data. According to the results, teachers in PATHS classrooms were observed to be more competent in terms of quality of the classroom climate though there were no differences between social-emotional behaviors of children. While teachers' perceptions did not yield any differences in regard to their relationships with children, children in intervention classes described relationships with teachers significantly more positively than the others.

INTRODUCTION

In the past substantial evidence has been accumulated indicating that universal preventive interventions have strengthened children's relationships with peers and adults by improving emotion regulation, fostering alternative problem solving thinking skills, and also improving pro-social behavior (Denham and Burton, 2003; Greenberg, Weissberg, Utne O'Brien, Zins, Fredericks, Resnik, and Elias, 2003; Hemmeter, Ostrosky, and Fox, 2006; Hennessey, 2007; Reid, Webster-Stratton, and Hammond, 2007; Sandy and Boardman, 2000; Shure and Spivack, 1980; 1982; Webster-Stratton, Reid, and Hammond, 2001). As commonly accepted today, the goal is to integrate emotional, cognitive and behavioral improvement as improved social functioning may also lead to improvements in cognition and learning. Social and emotional learning (SEL) interventions usually focus on a variety of factors including alternative problem solving thinking skills, social competence, social behaviors (Domitrovich, Cortes, and Greenberg, 2007; Hennessey, 2007; Shure, 2001) as well as strengthening the relationships and interactions between teacher-child and also child-child in the classroom. There is a clear connection between how children view their relationships with their teachers and how well they manage their behaviors to be successfully adjusted for other persons. Specifically, positive child-teacher relationships (in the classroom) could have a protective role in forming further close and intense relationships with others. By building positive relationships in this way it would be possible to prevent further negative attributions originated from early relationship experiences (Howes, Phillips, and Whitebook, 1992; Pianta, 1998, Howes, Shivers, and Ritchie, 2003).

Furthermore, preventive intervention programs also have shown to reduce children's aggressive behaviors and provide alternative ways to handle feelings of anger and frustration. These programs seek to reduce aggression and behavior problems while simultaneously enhancing cognitive and social-emotional development of children and improving relationships between teacher and children. In the literature considerable research has shown that children not only decrease relational and physical aggressive behaviors towards teacher and classmates but also reduce complaining and demanding behaviors (Shure 2001; Webster-Stratton, and Hammond, 1998). In addition to these positive benefits, teachers are also better equipped to cope with challenging behaviors of children, to respond supportively and emphatically, to play a role model for emotional coaching and guiding children to solve problems by themselves (Jennings and Greenberg, 2009). Integration of these programs into early childhood curriculum not only provides technical assistance to teachers to cope with difficult children or high risk children but also enriches their program in terms of overall psychological health of all children in the classroom (Ocak, 2010; Shure, 2001).

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As one of the universally accepted school based preventive programs in early childhood, The Preschool PATHS Curriculum intends to create a supportive environment in the areas of development of self-control, frustration tolerance, anger management, locus of control, emotional understanding and regulation, positive peer relation, interpersonal problem solving skills, social competence of children (Greenberg, Kusche, Cook, and Quamma, 1995; Kam, Greenberg and Kusche, 2004; Weisberg and O' Brien, 2004). In addition to those developmental advances of children, teachers using this program have reported that they feel more confident in promoting the social, emotional and behavioral responses of all children to create a peaceful atmosphere in the classroom (Domitrovich, Gest, Gill, Bierman, Welsh and Jones, 2009). Through preventive interventions, teachers might have an opportunity to improve their awareness of their own behavior and become more sensitive to children's needs on problematic situations. Thus, they are able to provide timely feedback to enhance peer relationships in the classroom by proposing more effective ways such as thinking alternative solutions to reduce frustration and aggressive behaviors (Jennings and Greenberg, 2009; Pianta and Hamre, 2001; Shure, 2001). Research shows that Preschool PATHS Curriculum lead to improve classroom management techniques used by teachers (Domitrovich, et al, 2009; Domitrovich, Greenberg, Kusche, and Cortes, 1999). Although considerable amount of research indicates that preventive intervention programs have significant positive effects on children, teachers and families in many aspects (Domitrovich, Cortes, and Greenberg, 2007; Kam, Greenberg, and Walls, 2003; Pianta and Hamre, 2001; Webster-Stratton, Reid, and Hammond, 2004), it is essential to implement these programs in a continuous manner in the classroom to increase potential benefits and studies need to be completed with independent investigators examining everyday school settings. It is known that better implementation is associated with stronger effectiveness of the programs (Durlak, 2010). Researchers draw attention on those programs that they are mainly needed to be applied voluntarily by classroom teachers. This may lead to some differences in implementation of such programs among teachers. This is why effectiveness may not always be predicted since implementation of programs may vary from classroom to classroom in their daily schedules. At this point, it is critical to figure out how implementation proceeds in order to evaluate effectiveness of those programs under consideration.

Aim of the Study

The main purpose of this study is to examine the effectiveness of PATHS program on behaviors of children and teachers.

At the same time, it evaluates perceptions of children and teachers in regard to their relationships with each other in a preschool curriculum where PATHS program has been integrated and applied systematically. In order to assess effectiveness of PATHS in daily education routine, the intervention group that had previously received training on the Preschool PATHS Curriculum but was not currently receiving technical assistance or part of any research projects was chosen for this study while the comparison group that had not taken PATHS training was selected from the same community.

METHOD

This study utilized the static-group comparison research design to get descriptive data about the effectiveness of PATHS curriculum. Therefore, it is not a pure experimental study (pre-test- intervention / training - post – test design).

Participants

The two groups of participants, a PATHS intervention group and non-PATHS group of children, and their teachers were included in this study. Initially we tried to identify preschools that were and were not implementing PATHS in spring of 2010. Sixteen preschool/day care centers (charter preschools, church, and university, private schools (State College, Pennsylvania) were asked to participate and 7 of them agreed. The schools who did not participate in that study presented different reasons such as end of the school year, busy programs, belief that families would not want to participate/consent. In order to increase the sample size in both groups, the study continued until 2011 spring semester and new preschools (Harrisburg, Pennsylvania) were contacted. The final sample included 14 classrooms of non-PATHS schools and 30 teachers (governmental school, charter school, church preschools) and 12 classrooms in PATHS schools (one private

and one university based school) and 28 teachers. The main criterion to include the schools in this study was using PATHS curriculum in their daily routines. Teachers in intervention classrooms were previously trained about PATHS and have applied that program in their daily routines. On the other hand, teachers in comparison group did not receive any training about PATHS and followed their usual preschool curriculum. Another criterion was to include only the volunteer teachers in the study. After agreement with principals and teachers for their participation, parent consent forms were sent to all families in 26 classrooms and asked to sign them for their children' participation (for classroom observations and teachers survey) in the assessment phase of the study.

There were 384 children for participation in the study during 2010-2011 period, 18 children of this group were ineligible for participation in Semi-Structure Play Interview, some of them did not speak English as their primary language and some had speech problems and rejected to participate and only 243 (n PATHS= 129, n non PATHS= 114) children who represented 63 % of the total population participated with parental permission in this study. Semi Structure Play Interviews were not conducted since teachers did not fill out the forms (STRS, HSCS) for 6 children.

Instruments

The Classroom Atmosphere Rating Scale – CARS – (CPPRG: Conduct Problems Prevention Research Group, 1999a)

This measurement assesses the quality of the classroom environment. The CARS observations assess children's level of compliance, cooperation, and interest/enthusiasm/involvement. At the same time, it evaluates how children handle transitions and follow rules, solve problems, express feelings. Furthermore the CARS assess the teacher's responsiveness to children's needs and teacher's supports for children's effort. Observers coded 10 items: (1) Students' level of compliance during structured time, (2) How classroom transitions were handled, (3) How students consistently follow rules appropriate to settings (4) Students' level of cooperation, (5) How students attempt to solve problems, (6) How students express feelings appropriately, (7) Students' level of interest/enthusiasm/involvement, (8) classroom is focused on task, (9) classroom is responsive to individual differences in students' needs, feelings, etc, (10) classroom is supportive for students' efforts. Each item is scored 1 (very high) to 5 (very low). The CARS has demonstrated good internal consistency (Cronbach's alphas ranging from .94 - .95) and adequate inter-rater reliability (ICC=.55 - .70). In a Turkish sample, the CARS showed adequate inter-rater reliability (ICC=.99**, **p< .01) and good internal consistency (Cronbach's alpha: .99) (Arda, 2011). In the present study internal inter-rater reliability was adequate (ICC=.99).

Teaching Style Rating Scale – TSRS (Domitrovich, Cortes & Greenberg, 2000)

The TSRS assesses teachers' behaviors, management techniques, and their interactions with students. It also reflects the quality of the classroom climate (Domitrovich, Cortes & Greenberg, 2000). The measure that focuses on the behavior of a teacher consists of 9 items with a 5-point Likert-type rating scale. The TSRS yields five subscales: (1) The Classroom Structure and Management including Routine, Preparedness, Classroom Awareness; (2) Discipline including Positive Behavior Management, Negative Behavior Management, Control/Limit-setting; (3) Emotional Communication and Support including Emotion Modeling Emotion Expression, Emotion Regulation; (4) Social Awareness and Problem Solving including Social Awareness, Social Problem Solving; (5) Preventing Misbehavior including Provision of Interpersonal Support and Promotion of Self-Regulation. Average agreement on TSRS items was 93% within 1 scale point. Interclass correlations for individual items ranged from $r =.60$ to $r =.75$, median $r = .68$. Good internal consistency for each subscales (Cronbach's alpha: $\alpha =.82$, $\alpha =.84$, $\alpha = .71$) are found. Arda (2011) indicated that adequate inter-rater reliability (ICC=.99**, **p< .01) and good internal consistency for each subscales (Cronbach's alpha: $\alpha =.97$, $\alpha =.96$, $\alpha = .96$, $\alpha = .98$, $\alpha = .98$) are estimated in Turkish sample.

Head Start Competence Scale – HSCS - Teacher Version (Domitrovich, Cortes & Greenberg, 2001)

HSCS (Domitrovich, Cortes & Greenberg, 2001) is a 12-item scale of children's social and emotional skills that assesses interpersonal relationships and emotion regulation. Teachers assess how well each item depicts a child by using a 4-point scale that ranges from "(1) not at all well" to "(4) very well." The scale items were evaluated by a confirmatory factor analysis. As a result, a total score was created by averaging all

of the items on the scale. The internal consistency of the scale was α =.74, which was adequate. Arda (2011) indicated that the results of content validity were evaluated with 175 children who are 4 and 5 years old and it was found α =.94 in Turkish sample.

Teacher Self Report

In this study, to reveal teacher's classroom management techniques or discipline strategies, teachers were asked four problem situations and requested to think how they generally handle this situation and what kind of strategies /methods teachers use when conflicts come up between child-child and teacher-child in the classroom. The first two questions were about teacher-child conflicts, and they were: "One of your student's does not want to end their play and move to snack. Typically, how would you handle this situation?" and "A child begins to fidget and lean against others, disrupting story reading. Typically, how would you handle this situation?" The other two questions related to child-child conflicts, "Two of your students are pushing each other trying to be first in line. Typically, how would you handle this situation?" and "Two of your students are playing in the housekeeping area and begin to argue over the one and only vacuum cleaner. Typically, how would you handle this situation?"

After collecting data from teachers, all of the strategies/methods were examined and then put together as a list without dividing PATHS and non-PATHS group. Each strategy was evaluated by independent professional and two researchers then they got an agreement on 4 subcategories that are "proactive strategies", "supportive (emphatic) strategies", "positive behavior management" and "limit setting and warnings". All of the teachers' strategies/methods were put into those categories by researchers and then were confirmed by the professional. After this process each of the categories was evaluated to reveal what kind of methods or strategies have been preferred most and least in the conflict situations and also to make a comparison about differences between PATHS and non-PATHS teachers.

Student – Teacher Relationship Scale – STRS (Pianta, 1996)

This scale is a 28-item self-report measure with a 5-point Likert-type rating scale. It was designed to measure each teacher's perception about his or her relationship with a particular student, a student's interactive behavior with the teacher and a teacher's beliefs about the student's feelings toward the teacher. The teacher rates his or her relationship with a particular student by indicating to what extent a particular item is applicable to that relationship. Responses range from 'definitely does not apply' (1) to 'definitely applies' (5). The STRS covers three subscales: conflict, closeness and dependency. The STRS has good reliability on all subscales: test-test reliability coefficients have been reported by the authors as 0.92 for conflict, 0.88 for closeness and 0.76 for dependency. Internal reliability coefficient alphas have also been reported to be 0.92, 0.86, and 0.64 for conflict, closeness, and dependency subscales. The STRS also provides strong evidence for concurrent and predictive validity across studies in terms of school adjustment and academic outcomes (Pianta, 1994; Birch and Ladd, 1997; Kesner, 2000; Kesner and Robinson, 2002; Hamre and Pianta, 2001). In this study, internal reliability coefficients for the United States and Turkish sample were 0.82 and 0.80 for conflict, 0.81 and 0.73 for closeness, and 0.60 and 0.62 for dependency respectively.

Semi-Structured Play Interview (Pianta & Hamre, 2001)

This technique is a semi structured play interview in which children are presented set props (such as model of classroom/school or dollhouse) and dolls (Pianta and Hamre, 2001). The form consists of eight story questions such as "One of the kids in the class won't listen when the teacher says to be quiet. The question "I wonder what happens next?" asked to evaluate children's relationship perception about their teacher. If the children had difficulty answering these questions, researchers made some reflective comments to supports the children's answers. During the interview, researchers tried to have the student elaborate on each story. After collecting qualitative data from children, all of the answers were transcribed and examined by two researchers and then put together without dividing those PATHS and non-PATHS group as an answer list. After this process, all of the answers were examined for developing 3 points scoring criteria. Point one generally represents a negative perception in which a child thinks that his/her relationship negatively (punishment or angry feeling) such as "He is taking him to the bathroom you have to listen to the teacher she is mad". Point 2 reflects that children do not express any negative feelings or perception such as "Be quite I do not know how she feels" and point 3 states deep positive feelings and good relationships with

teacher such as "Teacher feels sad please be quite please be quite other children says I am quite but you should be quite". All of the answers were put in one of three grades by examining whole answers sheet of each child from first question to eighth question to remove the grading differences risk by the researcher. After grading all answers, other researchers examined these graded answers if they were put in the right grading. After common agreement was ensured between researchers, each answer was graded based on this graded answer list by discussing their own grade.

Procedure

First of all, the principles and the teachers working in participant preschools were briefly informed about the study by the researchers. For observation sessions parent consent forms were sent to all families in 26 classrooms and parents were asked to sign the form for their child's participation (for classroom observations and teachers survey) in the assessment phase of the study. After the agreement with schools children and teachers would be observed to assess their behavioral interactions for 30-minute periods on four times on different days including observations at free-play time, art activity time, math time etc. These 26 Classrooms and 58 teachers were observed separately by two researchers with the Classroom Atmosphere Rating Scale to reveal the effects of the PATHS on preschool children's behaviors relating to social-emotional development. At the same time the Teaching Style Rating Scale was used to determine teachers' behaviors and management techniques, and to realize the interactions between teachers and children. During this observation procedure teachers were asked to fill out Head Start Competence Scale-HSCS, Teacher Self Report, and The Student-Teacher Relationship Scale – The STRS.

After this process children were also interviewed with by researchers to reveal children's perceptions about the relationships with teachers. All of the participant children were interviewed individually by using Semi-structured Play Interview in relatively silent places of the school. Each interview took around 20-30 minutes.

The Preschool PATHS Curriculum

The Preschool PATHS Curriculum is developed for use with children at the ages of 3-5 years to promote social emotional competence, problem solving skills, self-control, to prevent or reduce behavior and emotional problems, to create a positive classroom atmosphere that supports social- emotional learning (Domitrovich, et al,. 2009). The Curriculum consists of 44 lessons in 9 thematic units adapted from the original PATHS Curriculum (Kusché and Greenberg, 1994). These units include compliments, basic and advanced feelings, a self-control strategy lessons. Moreover, the program has some extension activities that can be easily adapted to any preschool program to generalize the concepts of the curriculum. The PATHS Preschool curriculum presents a guidelines and a variety of materials, photographs and drawings, feeling faces cards, story books, posters etc. It is one of the socio-emotional learning programs that are designed to serve the children who are both mentally healthy and handicapped as a universal school-based preventive intervention program.

Data Analyses

The data analyses were conducted through an analysis of variance (ANOVA) for CARS, TSRS, HSCS and Mann-Whitney U Test for Semi Structure Play Interview.

FINDINGS

The Classroom Atmosphere Rating Scales –CARS

In the direction of main goal of the study, CARS scores of classrooms were analyzed in terms of the effects of PATHS Preschool Program on children's social-emotional behaviors. As seen in Table 1, there were no significant differences between the intervention group and the comparison group in terms of class observations. Specifically, there was no significant difference between the two groups in either disruptive behaviors and compliance or communication and problem solving skills or classroom interaction levels.

Table 1: Means and Standard Deviations for Measures of Classroom Atmosphere

CARS	Control		Intervention		p Value
	M (SD)	Standard Error	M (SD)	Standard Error	
Disruptive Behavior and Compliance (1,2,3)	1.50 (.51)	.14	1.57 (.61)	.18	.85
Cooperation, Communication and Problem Solving (4,5,6)	2.20 (.89)	.24	2.09 (.78)	.22	.26
Classroom, Interest Level, Focus, Responsiveness (7,8,9,10)	1.56 (.67)	.18	1.49 (.49)	.14	.08

Teaching Style Rating Scale – TSRS

Table 2 provides a summary of the outcome analysis of TSRS Scales. In contrast to findings on the CARS, observations of the five-item TSRS scale revealed a significant positive intervention impact (p<.001). Each of 5 items as well as the total scale contributed to this impact. There were significant effects favoring the PATHS classrooms on classroom structure and management, discipline, emotion communication and support, social awareness and problem solving and also preventing misbehavior. As seen in Table 2, more specifically there was significant difference of teacher's behaviors in intervention versus the comparison group.

Table 2: Means and Standard Deviations for Measures of Teaching Quality

TSRS	Control		Intervention		P Value
	M (SD)	Standard Error	M (SD)	Standard Error	
Classroom Structure & Management (1,2,3)	3.57	.18	4.74	.06	.00*
Discipline (4, 5, 6)	3.94	.14	4.18	.05	.00*
Emotional Communication and Support (7,8,9)	2.91	.18	4.73	.08	.00*
Social Awareness and Problem Solving (10,11)	2.84	.20	4.71	.10	.00*
Preventing Misbehavior (12,13)	3.13	.22	4.79	.06	.00*
Total	3.33	.17	4.76	.06	.00*

**p<.001

Cronbach's alpha: .97

Head Start Competence Scale

Table 3 provides a summary of the outcome analyses conducted on teacher ratings of social-emotional competence of intervention versus the comparison group. No significant group difference was found in the analyses of social competence among the children.

Table 3: Means and Standard Deviations of Teacher Rated Behaviors

Scale	Control		Intervention		P Value
	M (SD)	Standard Error	M (SD)	Standard Error	
HSCS (Head Start					

Competence Scale)

Competence	2.77 (.73)	.07	2.74 (.68)	.06	.90

Teacher Self Report

In this study, Table 4 provides a summary of teacher's classroom management techniques or discipline strategies that teachers used in classrooms. A significant difference between PATHS and comparison groups was found in the use of positive strategies that were proactive strategies, supportive (emphatic) strategies and positive behavior management. In addition there were no significant differences between the two groups on negative strategies in terms of limit settings and warnings.

Table 4: Teachers' Management Strategies for Intervention and Comparison Group

	Strategies			
Frequency	*Proactive Strategies*	*Supportive (Emphatic) Strategies*	*Positive Behavior Management*	**Limit Setting And Warnings**
Control	41	37	21	55
Intervention	55	71	58	51

Table 4 shows control and intervention teachers' management strategies they reported to have used. The control teachers use more limit settings and warnings, and less positive behavior management strategies. Unlike the control teachers, the intervention teachers reported to have used more supportive and positive strategies in their classrooms.

Student Teacher Relationship Scale-STRS

Table 5 provides a summary of the outcome analyses conducted on the teacher-child relationships perception.

Table 5: Adjusted Means and Standard Deviations of Teacher-Reported Variables

STRS (Student Teacher Relationship Scale)	Control		Intervention		*P* Value
	M (SD)	**Standard Error**	*M (SD)*	**Standard Error**	
Conflict	23.89 (10.14)	.99	24 (8.68)	.76	.92
Closeness	45.02 (6.05)	.59	44.3 (5.85)	.51	.35
Dependency	13.73 (3.54)	.35	14.43 (3.24)	.29	.12

No significant differences between the two groups were found on the teacher-child relationship perception features conflict, closeness or dependency.

Semi Structure Play Interview

As seen in Table 6, the Mann-Whitney U Test conducted using interviews in scoring of children perceptions between their teachers shows a significant group effect on the total score of the Semi Structure Play Interview, U= 5793.50, p<.005

Table 6: Adjusted Means Rank and Sum of Ranks of Children's Perceptions of Their Teachers

Condition	N	Mean Rank	Sum of Ranks	U	P value
Control	114	108.32	12348.50	5793.50	.004*
Intervention	129	134.09	17297.50		

*p <.05

The means rank indicated that children in PATHS classes described their relationships as significantly more positively than did children in the comparison classes.

RESULT, DISCUSSION, AND SUGGESTIONS

This study focused on the effects of PATHS on teachers and children's relationships perception. Moreover, it was also investigated whether or not the PATHS teachers' classrooms who implement it in their daily routine independently from any research conditions create any differences in the children's social behavioral skills. It is expected that implementation of PATHS leads to build more positive relationships between teacher and children in the classroom by strengthening teacher's positive classroom management strategies and social and problem solving skills for managing misbehavior in the classroom. These results are compared to classrooms conducting regular early childhood educational programming. For this reason, four brief children's behavior observations were conducted in each classroom (intervention and no intervention) to assess the impacts of that program on children's behaviors by focusing on the quality of the classroom climate. The classroom observations has revealed that there is no difference between PATHS and non-PATHS children in respect of children's disruptive behaviors and compliance, communication and problem solving skills and classroom interaction levels. Similarly, when teachers were asked about their opinions on children's behaviors, they stated similar views. There were no differences in children's social emotional behaviors of intervention groups and comparison groups.

In the literature it is argued that there are some important features such as readiness of the schools to implement the program, principal support, technical support, and teacher personality, self-efficacy and attitudes that can affect the probability of successful program implementation (Kam, Greenberg and Walls, 2003). Consequently Kam, Greenberg and Walls' research results revealed that the PATHS program is only effective in school with both high principal support and high quality of implementation. In the next few decades implementation competence needs to be examined as a research priority. Implementing that kind of programs independently of regular research conditions in daily routine of curriculum is critically important in terms of effectiveness. In this respect, questions such as how prevention programs are delivered effectively and under what conditions such practices occur would be critical for high-quality program implementation. Thus, daily practices can have a strong impact on students, staff and systems as a preventive intervention program (Greenberg et al., 2003).

Observers in that study have witnessed that most implementation differences were related to dosage and duration of the program during children and teachers' observations in the daily routine of the classroom. In other words, implementation process of preventive intervention programs varies according to schools and teachers. This may be one reason to decrease the full impact of the program to reveal the positive changes in children's social - emotional behavior. If teachers do not create an environment that completely supports the program in the classroom, it is inevitable that the impact of the program will diminish. The reasons that weaken the fidelity of the program implementation must be eliminated and then ongoing programs must be evaluated frequently and constantly in daily routine practice in preschool classrooms. For this reason, technical support must be provided continuously to maintain quality control over how the program is implemented in schools (Kam, Greenberg, & Walls, 2003). At the beginning of the study, schools stated that they have applied all steps of PATHS as in the original program. However, none of the schools collected data to measure how often and consistently teachers implemented the program as a

whole in their daily routine under "normal" community conditions. In fact, it is essential to reveal implementation quality of PATHS in order to understand the real impact on children's and teachers' behavior. As a conclusion, the results of this study show that there is a need for further exploration of PATHS influence on children behaviors in daily routine in case that it is independent of research conditions. It is assumed that implementation quality in the real life settings in daily implementation in the schools plays a critical role in the effectiveness of the program.

The second goal of this study was to understand the nature of the interactions of PATHS and non-PATHS teachers with children and to see the differences in management techniques, problem solving strategies for preventing misbehavior of children, responsiveness and emotional support style for children's needs. To reveal the effects of PATHS Preschool program on teacher's social-emotional behavior, four teacher observations were conducted. The results from these observations showed that teachers in intervention classrooms were more competent in terms of classroom structure, management, discipline, emotional communication and support, social awareness and problem solving, and preventing misbehavior compared to non-PATHS teachers. Additionally in this study, teacher's classroom management techniques or discipline strategies were examined by asking teacher's opinions about four problem situations in Teacher Self Report. Although there were no significant differences between two groups of teachers on negative strategies in the limit settings and warnings category, PATHS teachers stated that they used more positive strategies which were proactive strategies, supportive (emphatic) strategies and positive behavior management strategies compared to non-PATHS teacher. The results of this interview conducted with teachers confirm and support the observation outcomes of this study. It is very critical to understand the techniques teachers use whether they are proactive strategies (such as gentle reminders for transition, ask the child a question for taking attention, establishing kindly and clearly rules), supportive (emphatic) strategies (such as supporting children for a good compromise, save working on toys, encouragement the children to calm down, create an atmosphere for sharing their feeling) and positive behavior management strategies (such as explaining the situation, praising, compliments, offering encouragements and suggestions, explaining logical consequences) or limiting settings and warnings (such as removing the child from the circle, reminding the rules in a rude way) in order to support children's social and academic performance and to build and promote a consistent socialization process between children and teachers. If teachers use proactive, supportive and positive strategies, this leads to improve nurturing relationships, and to establish clear rules, to prevent misbehaviors and to increase proper, well developed or pro-social behaviors of children, to enhance positive relationships between teachers-children and children-children. On the contrary, if teachers use poor classroom management techniques, children cannot learn appropriate friendships skills, show pro-social behaviors, and tolerate social and academic difficulties. By using praise, social reinforcement, proactive strategies, problem solving and self-management skills, well trained teachers in preventive intervention programs can help children to behave more appropriately and cooperatively without showing aggressive or disruptive behaviors (Kruif, McWillliam, Ridley and Wakely, 2000; Murray and Malmgren; 2005; Webster-Stratton and Reid, 2001). Researches show that trained teachers create positive impacts on children's pro-social behaviors and decrease children's aggressive behaviors (Webster-Stratton, Reid, and Hammond, 2004) by providing warm support and effective classroom management techniques.

This study was not only evaluated the effects of PATHS program on behaviors of children and teachers but also examined its impact on children's and teacher's perception of relationships with each other. Although PATHS and non-PATHS teachers did not state any differences in their perception of relationships in terms of conflict, closeness or dependency dimensions between children in their classrooms by utilizing STRS, children in intervention classes described their relationships as significantly more positively than children in the comparison classes in Semi - Structure Play Interview did. This critical outcome may be attributed that PATHS program is effective for strengthening the children's perception of relationships with their teachers. This result is supported by Beyazkurk's (2005) research in which the Banking Time - BT is used as an intervention program to examine perceptions of students about their relationships with their teachers. The results of the study showed that BT affected the students' relationship perceptions in experimental group positively compared to control group. However, as compared to the control group, BT intervention didn't improve the teachers' relationship perceptions with their students in the experimental group (Beyazkurk, 2005).

After all findings have been evaluated, teachers and observers did not detect any behavioral differences between PATHS and non-PATHS children. As mentioned before, there might be different reasons of this outcome. One reason might be related to socio-cultural unbalances between two groups. It has been clear that this situation was a limitation of the current study. It is well known that cultural background, economic conditions can affect children's behavior, social and academic performances and quality of relationships in the classroom (Webster-Stratton and Reid; 2002; Webster-Stratton, 2005; Stipek and Ryan, 1997; Brooks-Gunn and Duncan, 1997). Thus, the effects of intervention may not be clearly reflected for a comparison because of the unequal number of participants from socially and economically disadvantaged groups. Nevertheless, even though these programs are needed more in the aforementioned schools, the real issue that is supposed to be discussed is that these schools are not capable of implementing that kind of programs due to insufficient resources. In addition to this factor, one more issue that is discussed in the literature might have an effect on this outcome. Only one preventive intervention program could not be enough to prevent or terminate effectively multidimensional risk behaviors of children in the classroom. The literature points out the necessity of integrating these models or strategies to increase multiplicative or complementary effects of these programs in an early childhood classroom settings (Domitrovich, Cortes and Greenberg, 2007; Domitrovich, Bradshaw, Greenberg, Embry, Poduska & Ialongo, 2010). Another reason might be related to well-known concept that behaviors are very resistant to change. Thus, in order to accomplish these changes, more than one comprehensive and intensive preventive intervention program for supporting multiple dimensions of behaviors may be needed. Webster-Stratton and Reid (2002) report that children with persistent and severe challenging behaviors require more specific treatments, systematic approaches and early intervention to counteract risk factors and strengthen protective factors.

Although there did not seem to be some behavioral differences between PATHS and non-PATHS children, findings about teacher's approach and strategies in terms of improving and supporting social competence have been detected by studying the self-report mentioned above. Consequently, the results show that teachers' proactive strategies, supportive strategies and positive behavior management strategies may lead to increase children's positive perception of relationship with their teachers in intervention group more than non-PATHS children. Based on these results, when more positive strategies are used in teachers' relationships with children, it can be concluded that it would lead to more positive perception relationships in children with their teachers in the intervention groups. Hemmeter, Santos and Ostrosky (2008) stated that preschool teachers should be prepared to meet the needs of all children especially for challenging behaviors. If teachers know how to deal with conflicts or problems in the classroom, teachers can turn these situations into an advantageous position considering benefits of children. Teachers can easily handle children's difficult behaviors by concurrently promoting social-emotional development. Thus, the children who perceive their relationships with their teachers as being supportive and responsive would probably make their social and emotional adaptation easier (Murray and Greenberg, 2000). If teachers develop a sensitive, responsive and socially supportive relationship with children in the classroom, these children can also initiate and maintain a secure relationship with classmates as linked with teachers modeling. On the other hand, if a teacher doesn't know how to deal with those problems, have a specific training about different methods and techniques for preventing and solving problems, she/he cannot cope with a good thinker or a disruptive child who come up/produce many different kinds of alternative solutions. In these cases, that teacher cannot be able to find any functional solutions. This would change the relationship style from closeness to conflict between teacher and children. Generally speaking, the teachers have not been trained on basic approaches or thinking styles about how they can cope with interpersonal problems emerging in their classroom. For this reason, it seemed that teachers perceived conflict with the children who generate lots of solutions as well as with the children who have the least number of solutions (Ocak, 2010).

In sum, we can assume that problem solving skills, social competence and relationship perception between children and teachers are crucially important to prepare children to have an emotional and mental wellbeing, and to equip teachers to feel self-confident in challenging situations in the classroom. In the direction of these programs' frameworks, nurturing and supportive relationships formed between children and teachers contribute to children's positive social and emotional acquisitions (see Pianta, 1998, see Anderson, Christenson, Sinclair, & Lehr, 2004). We believe that further replications of this kind of researches in daily routine of preschool curriculum will bring to light the real effects of conducting preventive

intervention programs independent of research conditions. The limitation of this study is that it was conducted in two states only. It is suggested that a broader study should be conducted to get more stable results.

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