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Preschool Teachers' Use of Strategies to Support Social-Emotional Competence in Young Children

Abstract

Healthy development of social-emotional competence in early childhood years creates a strong foundation for future academic success and social-emotional well-being. The purpose of this descriptive study was to investigate preschool teachers' use of strategies to support young children's social-emotional competence. A total of 103 teachers and classrooms participated in the study. Descriptive findings of the study indicated that preschool teachers implemented a few practices to promote social-emotional competence in young children in the absence of training and professional development support. Preschool teachers were observed to implement universal promotion practices more often than tertiary preventions practices. Preschool teachers' overall use of strategies to enhance the social-emotional competence of young children did not differ significantly across classroom types and levels and based on whether teachers received training on promoting social-emotional development and addressing challenging behaviors. While there was a positive correlation between the level of preschool teachers' use of social-emotional teaching strategies and the number of adults in the classrooms, a negative correlation was observed between preschool teachers' use of strategies and the number of children in the classrooms. Implications of the findings for future research and practice are discussed.

Keywords: Preschool teachers, social-emotional competence, challenging behaviors, young children.

Introduction

Experiences in early years of life set the stage for later well-being, health, and learning. Associated with healthy cognitive development, healthy development of social-emotional competence (e.g., self-esteem, self-confidence, self-regulation, social interaction, and emotional awareness) in early childhood years creates a strong foundation for future academic success and social-emotional well-being (Cristóvão, Candeias, &Verdasca, 2017; Durlak, Weissberg, Schellinger, Dymnicki, &Taylor, 2011; Waltz, 2013; Yucesoy-Ozkan, 2017). Focus of the early work aiming to support child development was on the development of pre-academic skills to ensure that children were ready for formal schooling (Kim, Murdock, & Choi, 2005; McClelland, Tominey, Schmitt, & Duncan, 2017; O'Donnell, 2008; Ravner & Knitzer, 2002; Shala, 2013; Center for the Study of Social Policy, nd). In recent years, with the findings of research showing the robust link between the development of social-emotional competence in early years and school readiness and success, development of cognitive skills, and mental health,

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the emphasis has shifted toward supporting children's social-emotional development during early childhood period (Cristóvão et al., 2017; Durlak et al., 2011; Center for the Study of Social Policy, nd).

A number of studies have demonstrated that children who have deficits in social-emotional development are more likely to demonstrate challenging behaviors (Dunlap et al., 2006; Hemmeter & Conroy, 2018; Luo, Snyder, Clark, & Hong, 2017; Webster-Stratton & Reid, 2004). Children who exhibit challenging behavior during preschool years are at risk for failure in formal schooling and their adult lives are often characterized by violence, anxiety, and abuse (Diken, Cavkaytar, Batu, Bozkurt, & Kurtyilmaz, 2010; Greenberg & Kusche, 2006; Overton, McKenzie, King, & Osbourne, 2002; Technical Assistance Center on Social Emotional Intervention for Young Children [TACSEI], 2004; Turan, Erbas, Yucesoy-Ozkan, & Ulke-Kurkcuoglu, 2010). Moreover, children who are poorly- or untreated are more likely to drop out of school, be addicted to alcohol, drugs, and other substances, live marginalized lives in adulthood, be under high risk of fatal accidents, unemployment, divorce, psychiatric illness, and die young (Clegg & Standen, 1991; Golly, Stiller, & Walker, 1998; TACSEI, 2004; Walker, et al., 2009). Research has shown that un-treated challenging behaviors during preschool period are the single best predictor of criminal behaviors during adolescence, gang membership, and imprisonment in adulthood (Mindes, 2018; Perry, Holland, Darling-Kuria, & Nadiv, 2011; Steed & Roach, 2017; TACSEI, 2004).

In the United States, the prevalence of young children exhibiting challenging behaviors and deficits in social-emotional development is estimated to be 14% to 34% for preschool children (Hemmeter, Hardy, Schnitz, Adams, & Kinder, 2015). Moreover, studies have shown that in comparison to typically developing children, young children with disabilities exhibit higher rates of challenging behaviors (Baker, Blacher, Crnic, & Edelbrock, 2002; Hemmeter, Snyder, Fox, & Algina, 2016). Prevalence of children who have delays in social-emotional development and who exhibit challenging behaviors during the preschool period in Turkey is not known. However, a recent report of Turkish Statistical Institute (2015) shows that approximately 2% of Turkish children who are six years old or younger have behavioral and adjustment problems. Moreover, the number of students identified with emotional and behavioral disorders during the primary and secondary school periods has increased over the last two decades (Cakiroglu & Melekoglu, 2014). As the number of preschool children with identified disabilities increases, the rate of Turkish preschool children with social-emotional difficulties and challenging behaviors will likely to increase.

Social-emotional development in young children does not happen naturally by itself. Young children develop social-emotional skills by interacting with nurturing adults and competent peers. An abundant number of studies have shown that a reliable relationship with a caring, nurturing, and attuned adult who actively promotes the development of social skills and emotional competence is crucial for healthy social-emotional development in young children (Simpson et al., 2016). In this respect, preschool teachers have an important role in supporting the development of social-emotional competence in young children as the majority of children who are between the ages of 3 to 5 years spend most of their awake time at school (Denham, Bassett, & Zinsser, 2012).

National preschool curriculum in Turkey includes objectives and indicators for children who are between 3 to 6 years of age in four developmental areas, and one of these areas is the social-emotional development (Ministry of National Education, 2013). Although the emphasis of the national curriculum on the social-emotional development of young children is promising, it does not warrant teachers' intentional implementation of practices and strategies to support the development of social-emotional competence. In fact, descriptive studies in the international literature show that without training and professional development support, early childhood teachers and providers across different countries infrequently use social-emotional teaching strategies while teaching young children (Heo, Cheatham, Hemmeter, & Noh, 2014; Luo et al., 2017; Steed & Roach, 2017). Intervention studies in this area, however, show that when teachers are provided with high-quality training followed by implementation support (e.g., coaching), they are able to implement strategies frequently with fidelity to enhance social-emotional devel

opment and address challenging behaviors of young children (Conners-Burrow, Patrick, Kyzer, & McKelvey, 2017; Fettig & Artman-Meeker, 2016; Hemmeter et al., 2015, 2016).

A research-based approach to support social-emotional development of young children and address their challenging behaviors is *the Pyramid Model for Promoting Social-Emotional Competence in Young Children* (Fox, Dunlap, Hemmeter, Joseph, & Strain, 2003; Hemmeter, Fox, & Snyder, 2013). The Pyramid Model is a comprehensive approach that consists of three tiers: primary or universal (promotion), secondary (prevention), and tertiary (intervention). The primary or universal tier includes two levels of practices, *Nurturing and Responsive Caregiving Relationships* and *High-Quality Supportive Environment* to promote the social-emotional development of young children. As mentioned previously, nurturing and responsive relationships with adults and peers is fundamental to the development of children (Shonkoff & Phillips, 2000). At this level, adults interacting with children are expected to purposefully support active engagement of children with their environments, provide instruction during ongoing routine, play, or planned activities, respond to children's communication attempts and conversations, and provide assistance and encouragement to enhance learning and development of new skills (Fox et al., 2003; Fox & Lentini, 2006; Hemmeter et al., 2015).

The second level in the universal promotion tier focuses on providing supportive early childhood environments to young children. Supportive home and community environments are those that are predictable and contain rich context for the development of social skills, emotional competencies, and peer relationships (Fox et al., 2003; Hemmeter et al., 2015; Hemmeter, Ostrosky, & Fox, 2006). At this level, teachers of young children are expected to use a curriculum to support young children in all areas of development, use intentional and systematic instruction that is effective, developmentally and culturally appropriate, design safe learning environments, guide young children on behavior expectations and rules, and design classroom activities and schedules to support child engagement and learning (Fettig & Artman-Meeker, 2016; Hemmeter et al., 2006, 2015).

The secondary prevention tier involves explicit and systematic instruction on social skills and emotional competencies. These skills and competencies include expressing emotions, solving social problems, initiating, responding to, and maintaining interactions with adults and peers, friendship skills, and dealing with anger, sadness, and disappointment (Hemmeter et al., 2006, 2015; Strain & Joseph, 2006). The tertiary intervention tier involves development and implementation of comprehensive, intensive, and individualized intervention programs based on Positive Behavior Support for children who are not responsive to the practices and interventions offered at the first two tiers and who continue to show persistent challenging behaviors (Fox et al., 2003; Hemmeter et al., 2015).

Although the international literature includes several studies examining preschool or childcare teachers' use of social and emotional teaching strategies associated with the Pyramid Model (e.g., Heo et al., 2014; Luo et al., 2017; Steed & Roach, 2017), Turkish preschool teachers' implementation of these strategies is not known. Having information about preschool teachers' use of practices to promote social-emotional competence of young children would support the development and implementation of professional development programs in this area. The purpose of this descriptive study was to investigate Turkish preschool teachers' implementation of social and emotional teaching strategies associated with the Pyramid Model. The following questions were addressed in this study: (1) Which social-emotional teaching strategies do Turkish preschool teachers use? (2) Is there a relationship between the level of preschool teachers' use of social-emotional teaching strategies and (a) type of classrooms (i.e., general, inclusive, or segregated) in which they worked, (b) age group classrooms served (i.e., 3-year, 4-year, or 5-year classrooms), (c) training they received about addressing challenging behaviors, (d) training they received about supporting social-emotional development, (e) years of teaching experience teachers had, (f) the number of adults in their class-

rooms, and (g) the number of children in their classroom.

Methods

Participants

The present study was conducted in 103 preschool classrooms located in a relatively large, northern city in Turkey. Preschool teachers serving children 3 to 5 years old were recruited to participate in this study. To recruit teachers, a list of preschool classrooms and programs were obtained from the local education agency. Classrooms were grouped under three categories based on the population they were serving: general preschool education classrooms (all children were typically developing), inclusive preschool education classrooms (children with and without disabilities were educated together), and segregated preschool education classrooms (all children had a diagnosed disability). To recruit 40 classrooms for each classroom type, 50 classrooms were randomly selected from the list of preschools for each classroom type. Initially, we initiated communications with the principal in each program and explained the purpose of the study. Upon approval of the principals for the study participation, information with respect to study and procedures were sent to teachers in the programs along with the informed consent forms. Teachers who returned the informed consent forms within the three weeks of initial contact participated in the present study. A total of 103 lead teachers agreed to participate in the study. Participating teachers were required to have basic knowledge of English language in order to understand and respond to interview questions.

Across 103 classrooms, 33 (32%) were general preschool education classrooms, 35 (34%) were inclusive preschool classrooms, and 35 (34%) were segregated preschool classrooms. Moreover, 31 (30%) classrooms served 3 years-old children, 33 (32%) classrooms served 4 years-old children, and 39 (%38) classrooms served 5 years-old children. Classrooms served 5 to 21 children (M = 11.77, SD = 4.10) and included 1 to 3 adults (M = 2.18, SD = .69). Table 1 shows background information for all participants and by classroom type and level.

Table 1.

Background Information about Teachers and Classrooms by Classroom Type and Level

Variable	Classroom Type			Classroom Level			Overall (n=103)
	General (n=33)	Inclusive (n=35)	Segregated (n=35)	3-yrs (n=31)	4-yrs (n=33)	5-yrs (n=39)	
Teaching exp. (year)	12.52 (5.84)	10.06 (5.91)	11.43 (5.97)	11.29 (6.45)	10.85 (5.57)	11.72 (5.94)	11.31 (5.94)
Num. of children (classroom)	13.18 (3.45)	13.91 (3.40)	8.31 (2.10)	11.90 (3.97)	10.70 (3.62)	12.59 (4.48)	11.78 (4.10)
Num. of adults (classroom)	2.18 (.68)	1.91 (.61)	2.43 (.70)	2.06 (.68)	2.36 (.65)	2.10 (.72)	2.17 (.69)
Training on CB	18 (55)	24 (69)	23 (66)	20 (65)	18 (55)	27 (69)	65 (63)
Training on SED	17 (52)	15 (43)	13 (37)	12 (39)	15 (46)	18 (46)	45 (43)

Note. Mean (SD) data were presented for teaching experience, number of children, number of adults, and CLASS; frequency (%) data were presented for training on challenging behaviors and training on social-emotional development). Yrs = Years.

Across 103 lead teachers, 101 (98%) were female, and 2 (2%) were male. All teachers held a bachelor's degree in early childhood education, and 6 (6%) had a master's degree in early childhood education or a related field. Teachers had an average of 11.31 years of teaching experience (Range = 1 to 21 years; *SD* = 5.94). With respect to professional development experiences on addressing challenging behaviors and supporting social-emotional development of young children, 65 (63%) teachers reported receiving training on challenging behaviors; 45 (44%) teachers reported attending training on social-emotional development, and 29 (28%) teachers reported attending training focused on challenging behaviors and social-emotional development. Participating preschool teachers did not have any exposure to professional development programs focused on the Pyramid Model.

Measures/Instruments

Data were collected using a teacher/classroom information form and the Teaching Pyramid Observation Tool (TPOT; Fox, Hemmeter, & Snyder, 2014). Two trained data collectors implemented the TPOT. With respect to TPOT administration, data collectors were trained on the pre-published version of the measure as part of a research study conducted in the United States (Hemmeter, Fox, Snyder, & Algina, 2012).

Teacher/Classroom Information Form. Teacher/Classroom Information Form was developed by the research team to collect data about the participating teachers and their classrooms. The form included questions about teachers' gender, years of teaching experience, level of highest education obtained, and professional development experiences as well as the number of children and adults in their classrooms.

Teaching Pyramid Observation Tool. The TPOT was used to evaluate preschool teachers' implementation of social-emotional teaching practices associated with the Pyramid Model. The measure included 117 indicators under 32 items organized within three sub-scales: Key Practices (114 indicators/14 items), Red Flags (17 items), and Response to Challenging Behavior (3 indicators/1 item). The Key Practices include (1) schedules, routines, and activities (10 indicators), (2) transitions between activities (8 indicators), (3) supportive conversations with children (10 indicators), (4) promoting children's engagement (9 indicators), (5) providing directions (7 indicators), (6) collaborative teaming (9 indicators), (7) teaching behavior expectations (7 indicators), (8) teaching social skills and emotional competence (8 indicators), (9) teaching children to express emotions (8 indicators), (10) teaching problem solving (9 indicators), (11) teaching friendship skills (9 indicators), (12) interventions for children with persistent challenging behaviors (5 indicators), (13) connecting with families (8 indicators), and (14) supporting families (7 indicators). Red Flags indicators evaluate teachers' use of practices that are incompatible with the Pyramid Model practices while indicators with respect to Response to Challenging Behavior evaluate strategies preschool teachers use in Response to Challenging Behavior occurring in their classrooms. TPOT is completed during an approximately 2-hr observation, and 15-min interview in the preschool classrooms and each indicator on the measure is scored using a binary checklist of yes/no. At the end of each observation, frequency and percentage of indicators scored yes for each of the 15 items under Key Practices and Response to Challenging Behavior as well as frequency and percentages of 17 Red Flag items scored yes were calculated and used for data analyses in the present study. Internal consistency score reliability estimate for Key Practices and Red Flags reported in TPOT Manual are .94 and .71, respectively. Internal consistency score reliability estimates across Key Practice items range between .35 and .82.

Interobserver Agreement

A secondary observer collected inter-observer agreement (IOA) data for TPOT by conducting observations along with the primary observer in 34 classrooms (i.e., 33% of all classrooms). The IOA was calculated by dividing the number of the agreement by the total number of agreements plus disagreements and multiplying the quotient by 100. Mean IOA for TPOT was 90.69% (*SD* = 4.13).

Data Collection and Analysis

Once preschool teachers agreed to participate in the present study, a data collection schedule was created to complete the

Teacher/Classroom Information Form and TPOT observation on the same day for each teacher. TPOT observations were scheduled to start with the first classroom activity. Data collection activities were completed within a six-month period during the Fall and Spring semesters.

Overall and item level percentage scores were calculated for TPOT by classroom type and level (i.e., age group each classroom served). Controlled for the false discovery rate (Benjamini & Hochberg, 1995), a series of one-way ANOVA analyses were performed to investigate differences in mean TPOT scores across different types and levels of preschool classrooms. A *t*-test analysis was conducted to investigate the difference between TPOT mean across teachers who received and who did not receive training on social-emotional development and challenging behaviors. Pearson product-moment correlation analyses were employed to investigate the correlation between mean TPOT scores, and the number of adult and child in classrooms. Data analyses were conducted using SPSS Version 23.0 for Mac.

Results

Descriptive analyses of data revealed that Turkish preschool teachers implemented 14% (*SD* = 10.54, range = 0-32) of practices associated with the Pyramid model, on average. Item level analyses showed that preschool teachers implemented 38% (*SD* = 13.60, range = 0-70) of practices associated with schedules, routines, and activities; 31 % (*SD* = 16.21, range = 0-63) of practices associated with transitions between activities; 41 % (*SD* = 16.65, range = 10-80) of practices associated with supportive conversations with children; 22 % (*SD* = 13.60, range = 0-55) of practices associated with promoting children's engagement; 18 % (*SD* = 13.27, range = 0-42) of practices associated with providing directions; 27 % (*SD* = 12.95, range = 0-55) of practices associated with collaborative teaming; 7 % (*SD* = 8.52, range = 0-28) of practices associated with teaching behavior expectations; 9 % (*SD* = 9.13, range = 0-25) of practices associated with teaching social skills and emotional competence; 14 % (*SD* = 12.58, range = 0-38) of practices associated with teaching children to express emotions; 11 % (*SD* = 10.15, range = 0-33) of practices associated with teaching problem solving; 16 % (*SD* = 11.37, range = 0-44) of practices associated with teaching friendship skills; 16% (*SD* = 16.00, range = 0-60) of practices associated with interventions for children with persistent challenging behaviors; 32 % (*SD* = 16.84, range = 0-50) of practices associated with connecting with families, and 5 % (*SD* = 6.62, range = 0-14) of practices associated with supporting families. In addition, preschool teachers implemented 8 % (*SD* = 14.02, range = 0-33) of practices associated with the Response to Challenging Behavior subscale. Moreover, preschool teachers showed 35% (*SD* = 10.59, range = 18-65) of the behaviors associated with Red Flag items, on average. Table 2 presents overall and item level descriptive analyses.

As shown in Table 3, teachers' implementation of Key Practices (Subscale 1; $F_{(2,100)}$ = .143, p = .867) and Responses to Challenging Behaviors (Subscale 3; $F_{(2,100)}$ = .167, p = .867) did not differ across classroom types in which teachers worked. Mean percentage of implementation different classroom types ranged between 13.34 and 14.61 for Subscale 1 and 6.60 and 8.49 for Subscale 3. With respect to Red Flag items, mean percentages of teachers' implementation were 34.42 (*SD* = 11.02), 30.97 (*SD* = 9.71), and 38.20 (*SD* = 10.06) for general, inclusive, and segregated preschool classrooms, respectively. Teachers working in inclusive preschool classrooms showed behaviors associated with Red Flags significantly lower than teachers working in the segregated classroom ($F_{(2,100)}$ = 4.345, p = .045). For 5 of the 14 items under Key Practices Subscale, a statistically significant difference in teachers' implementation was observed among classroom types. Preschool teachers working in general and inclusive preschool classrooms implemented higher percentages of practices associated with supportive conversations with children ($F_{(2,100)}$ = 6.209, p = .026) when compared to teachers working in segregated classrooms. For practices associated with teaching friendship skills, general preschool teachers showed significantly higher levels of implementation than teachers who worked in inclusive or segregated classrooms ($F_{(2,100)}$ = 11.924, p =.000). Moreover, general preschool teachers showed higher level of implementation than preschool teachers employed in segregated classrooms for practices associated with teaching problem solving

Table 2.
Preschool Teachers' Implementation of Social-Emotional Teaching Strategies

Subscale	Mean	Median	SD	Minimum	Maximum
Subscale 1: Key Practices					
SR	37.96	40	13.60	0	70
TR	30.69	25	16.21	0	63
SC	40.49	40	16.65	10	80
ENG	22.21	22	13.60	0	55
PD	18.21	14	13.27	0	42
CT	27.12	22	12.95	0	55
TBE	7.07	0	8.52	0	28
TSC	8.50	12.50	9.14	0	25
FR	15.59	11	11.37	0	44
TEE	13.50	12.50	12.58	0	38
TPS	10.68	11	10.15	0	33
PCB	15.73	20	16	0	60
COM	32.18	37.50	16.83	0	50
INF	4.62	0	6.62	0	14
Overall	14.12	18	10.54	0	32
Subscale 2: Red Flags					
Overall	34.53	35	10.59	18	65
Subscale 3: Response to Challenging Behavior					
Overall	7.69	0	14.02	0	33

Note. SR = Schedules, routines, and activities, TR = Transitions between activities, SC = Supportive conversations with children, ENG = Promoting children's engagement, PD = Providing directions, CT = Collaborative teaming, TBE = Teaching behavior expectations, TSC = Teaching social skills and emotional competence, FR = Teaching friendship skills, TEE = Teaching children to express emotions, TPS = Teaching problem solving, PCB = Interventions for children with persistent challenging behaviors, COM = Connecting with families, INF = Supporting families.

($F_{(2,100)}$ = 4.580, p = .045), interventions for children with persistent challenging behaviors ($F_{(2,100)}$ = 4.328, p = .045), and connecting with families ($F_{(2,100)}$ = 4.484, p =.045). Preschool teachers working in general preschool classrooms implemented slightly higher level of practices associated with transition between activities when compared to teachers working in inclusive classrooms. However, the difference between mean scores was not statistically significant ($F_{(2,100)}$ = 3.455, p = .081). Analyses with respect to classroom level in which teachers worked showed that teachers' implementation of Key Practices (Subscale 1; $F_{(2,100)}$ = .143, p = .867), demonstration of behaviors associated with Red Flags (Subscale 2; $F_{(2,100)}$ = .354, p = .867), and Response to Challenging Behavior (Subscale 3; $F_{(2,100)}$ = 3.115, p = .760) did not differ across classroom levels (see Table 3). Mean percentage of implementation across different classroom levels ranged between 13.54 and 14.88 for Subscale 1, 33.67 and 35.81 for Subscale 2, and 4 and 11.85 for Subscale 3. Moreover, item level analyses for Subscale 1 did not result in statistically significant difference for any of the comparisons.

Results of t-test analyses comparing teachers who received (n = 29) /did not receive (n = 74) training on addressing challenging behaviors and supporting social emotional development showed no statistically significant differences on teachers' implementation of practices associated with Subscale 1 ($t_{(101)}$ = 1.005, p = .317), Subscale 2 ($t_{(101)}$ = .836, p = .405), and Subscale 3 ($t_{(101)}$ = -.639, p = .524). Pearson product-moment correlation analyses were run to determine the associations among mean subscale scores and number of adults and children in each classroom. A small, statistically significant, positive correlation was also observed between Subscale 2 and the number of adults in the classrooms (r = .268, n = 103, p = .01). Moreover, there was a small, statistically significant, negative correlation between Subscale 2 scores and the number of children in the classrooms (r = -.227, n = 103, p = .01).

Table 3.
Teachers' Use of Social-Emotional Teaching Strategies by Classroom Type and Level

Variable	Classroom Type				Classroom Level			
	General (n=33)	Inclusive (n=35)	Segregated (n=35)	Comparison	3-years (n=31)	4-years (n=33)	5-years (n=39)	Comparison
Subscale 1: Key Practices								
SR	39.09 (13.08)	39.14 (15.02)	35.71 (12.67)	$F_{(2,100)} = .719$ $p = .595$	38.71 (14.99)	38.48 (10.04)	36.92 (15.24)	$F_{(2,100)} = .182$ $p = .867$
TR	36.35 (17.50)	26.43 (14.47)	29.63 (15.48)	$F_{(2,100)} = 3.455$ $p = .081$	32.66 (17.28)	30.68 (17.14)	29.14 (14.70)	$F_{(2,100)} = .403$ $p = .867$
SC	43.64 (14.32)	45.14 (13.37)	32.86 (19.19)	$F_{(2,100)} = 6.209$ **$p = .026$**	39.35 (16.32)	43.94 (17.31)	38.46 (16.31)	$F_{(2,100)} = 1.071$ $p = .759$
ENG	23.33 (13.40)	21.37 (14.84)	22 (12.80)	$F_{(2,100)} = .180$ $p = .867$	19.16 (14.19)	21.33 (12.58)	25.38 (13.63)	$F_{(2,100)} = 1.945$ $p = .759$
PD	21.21 (12.68)	15.60 (13.49)	18 (13.40)	$F_{(2,100)} = 1.542$ $p = .326$	19.87 (11.87)	17.39 (14.86)	17.59 (13.13)	$F_{(2,100)} = .343$ $p = .867$
CT	29.67 (12.14)	29.23 (11.61)	22.60 (14.06)	$F_{(2,100)} = 3.385$ $p = .081$	25.19 (13.68)	29 (12.85)	27.05 (12.55)	$F_{(2,100)} = .687$ $p = .780$
TBE	5.09 (6.84)	9.60 (9.47)	6.40 (8.55)	$F_{(2,100)} = 2.625$ $p = .145$	6.77 (7.98)	5.52 (6.95)	8.62 (9.96)	$F_{(2,100)} = 1.216$ $p = .759$
TSC	10.61 (9.94)	7.87 (8.08)	7.16 (9.25)	$F_{(2,100)} = 1.347$ $p = .347$	9.68 (10.06)	6.83 (7.72)	8.99 (9.49)	$F_{(2,100)} = .860$ $p = .759$
FR	22.67 (11.65)	13.51 (9.65)	11 (9.62)	$F_{(2,100)} = 11.924$ **$p = .000$**	13.84 (13.31)	14.67 (9.79)	17.77 (10.89)	$F_{(2,100)} = .1.197$ $p = .759$
TEE	15.95 (12.98)	13.96 (11.25)	10.73 (13.27)	$F_{(2,100)} = 1.515$ $p = .326$	12.94 (13.10)	11.74 (12.08)	15.44 (12.64)	$F_{(2,100)} = .812$ $p = .759$
TPS	14.67 (11.56)	10.06 (9.76)	7.54 (7.90)	$F_{(2,100)} = 4.580$ **$p = .045$**	11.35 (11.88)	9.67 (7.66)	11 (10.71)	$F_{(2,100)} = .248$ $p = .867$
PCB	21.82 (21.43)	14.86 (11.21)	10.86 (12.22)	$F_{(2,100)} = 4.328$ **$p = .045$**	18.71 (18.57)	12.12 (16.54)	16.41 (12.87)	$F_{(2,100)} = 1.423$ $p = .760$
COM	38.27 (12.83)	32.17 (15.82)	26.44 (19.35)	$F_{(2,100)} = 4.484$ **$p = .045$**	31.89 (16.39)	35.98 (15.55)	29.19 (17.96)	$F_{(2,100)} = 1.477$ $p = .760$
INF	5.94 (7.03)	3.20 (5.97)	4.80 (6.74)	$F_{(2,100)} = 1.490$ $p = .326$	4.97 (6.81)	3.39 (6.09)	5.38 (6.90)	$F_{(2,100)} = .868$ $p = .760$
Overall	14.61 (10.40)	13.34 (10.32)	14.43 (11.14)	$F_{(2,100)} = .143$ $p = .867$	14.03 (10.59)	14.88 (9.88)	13.54 (11.26)	$F_{(2,100)} = .143$ $p = .867$
Subscale 2: Red Flags	34.42 (11.02)	30.97 (9.71)	38.20 (10.06)	$F_{(2,100)} = 4.345$ **$p = .045$**	35.81 (10.88)	34.36 (9.40)	33.67 (11.45)	$F_{(2,100)} = .354$ $p = .867$
Subscale 3: Response to CB	8 (14.36)	6.60 (13.39)	8.49 (14.63)	$F_{(2,100)} = .167$ $p = .867$	6.39 (13.25)	4 (10.94)	11.85 (16.04)	$F_{(2,100)} = 3.115$ $p = .760$

Note. *p* values were adjusted to control false discovery rate (Benjamini & Hochberg, 1995). SR = Schedules, routines, and activities, TR = Transitions between activities, SC = Supportive conversations with children, ENG = Promoting children's engagement, PD = Providing directions, CT = Collaborative teaming, TBE = Teaching behavior expectations, TSC = Teaching social skills and emotional competence, FR = Teaching friendship skills, TEE = Teaching children to express emotions, TPS = Teaching problem solving, PCB = Interventions for children with persistent challenging behaviors, COM = Connecting with families, INF = Supporting families, CB = Challenging behavior.

Discussion

The purpose of the present study was to investigate preschool teachers' use of strategies to support social-emotional competence in young children. A total of 103 preschool teachers working in public preschool classrooms participated in the study. Results of the study showed that preschool teachers were only able to implement very low levels of practices associated with Key Practices and Response to Challenging Behaviors subscales. Moreover, high levels of behaviors associated with Red Flags were observed across the classrooms. Taken together, these findings illustrate that without training and professional development support preschool teachers working in public preschool classrooms in Turkey have difficulty implementing practices to support young children's social-emotional competence. Below, findings of the present study were discussed in relation to extant literature, describe limitations of the study, and provide recommendations for future research and practice.

Key Practices to support social-emotional skills of young children were minimally implemented across 103 preschool classrooms. Participating preschool teachers were observed to use approximately 14% of the Key Practices, and the level of preschool teachers' implementation did not vary significantly across classroom types and levels. In the absence of training and professional development, low levels of teachers' implementation of practices to support social-emotional competence were observed in other studies (e.g., Heo et al., 2014; Luo et al., 2017; Steed & Roach, 2017). However, in comparison to studies conducted in South Korea, China, and the United States, the levels of Turkish preschool teachers' use of practices to support young children's social-emotional competence were considerably low. This finding is concerning as healthy social-emotional development is the foundation for later well-being and academic success (Bambara, & Kern, 2005; Barnett, 2000; Ocak, & Arda, 2014b; Sailor, Dunlap, Sugai, & Horner, 2009; Waltz, 2013).

When the Key Practice items were examined individually, it was seen that practices associated with supportive conversations with children, schedules, routines, and activities, connecting with families, transitions between activities, and collaborative teaming items (*M* range = 27% - 41%) were implemented in considerably higher rates than the practices included under other Key Practice items. In addition, preschool teachers implemented less than 9% of the practices associated with three items: supporting families, teaching behavior expectations, and teaching social and emotional competence. These findings are consistent with findings of earlier studies showing that preschool teachers use practices associated with universal promotion tier more often than the practices associated with secondary prevention or tertiary intervention tiers (Artman-Meeker, Hemmeter, & Snyder, 2014; Hemmeter et al., 2016; Luo et al., 2017; Steed & Roach, 2017). This can be explained by the fact that although social-emotional development is acknowledged as an important area of development in the national preschool program, there is no comprehensive curriculum developed in Turkey that focused on social-emotional development. Therefore, the majority of teachers underutilize systematic and explicit instruction to support young children's social-emotional competence.

In parallel with the underutilization of Key Practices, Turkish preschool teachers who participated in the present study demonstrated about 35% of the behaviors associated with Red Flags and a statistically significant difference was observed between teachers who worked in segregated and inclusive preschool classrooms. Teachers working in segregated preschool classroom demonstrated higher levels of Red Flag behaviors than teachers of inclusive preschool classrooms. Our findings with respect to Red Flag items means that participating preschool teachers not only implemented very low levels of practices to support young children's social-emotional development but also they showed high levels of behaviors that were inconsistent with the implementation of Pyramid Model practices. In comparison to the studies conducted in the United States and China where preschool teachers used 10% to 21% of behaviors associated with Red Flag items (Luo et al., 2017; Steed & Roach, 2017), preschool teachers who participated in the present study showed substantially higher levels of Red Flag behaviors.

With respect to the associations among teacher- and classroom-level variables and preschool teachers' use of practices to support young children's social-

emotional competence, we found no significant relationship between training preschool teachers received prior to the study that focused on supporting social-emotional development and addressing challenging behaviors of young children and their implementation of the practices associated with the Pyramid Model. This finding is not surprising as professional development and training programs offered to Turkish preschool teachers are often in the form of a single training session with no follow-up support. Although it may be helpful for creating awareness, this type of professional development is found to be ineffective for changing practices teachers implement in the classrooms (Cook & Odom, 2013; Metz, Blase, & Bowie, 2007; Oliver & Reschly, 2007; Sugai & Horner, 2006).

Limitations

There are at least three limitations of the present study. First, data for the present study were collected in preschool classrooms located in one city, and therefore the results may not be representative of preschool classrooms in the entire country. Second, the present study was designed to descriptively evaluate practices used by preschool teachers to support social-emotional competence in young children by conducting one classroom observation in each classroom. Although systematic procedures were employed to collect reliable data, repeated observations and measurement in the classrooms would allow gathering more comprehensive and trustworthy data about practices preschool teachers implemented. Third, data on the training preschool teachers received about social-emotional development, and challenging behavior was collected using a dichotomous question of whether or not they participated in any training focused on these topics. Therefore, we do not know the nature and content of training preschool teachers received.

Directions for Future Research and Practice

Future research in this area might investigate preschool teachers' implementation of practices to support young children's social-emotional competence across different locations in the country using multiple observations and measurement to enhance generalization of the findings. In addition, experimental studies could be conducted to examine impacts of different professional development programs on preschool teachers' use of strategies to promote social-emotional competence in young children. Moreover, future research could explore Turkish preschool teachers' acceptability of practices associated with the Pyramid Model and identify the factors associated with higher levels of implementation.

The findings of the present study show that Turkish preschool teachers implement the Pyramid Model practices infrequently in the absence of focused training on social-emotional development. This main finding clearly illustrates preschool teachers' urgent need for additional training and professional development with respect to supporting social-emotional competence of young children. Professional development and training programs designed for this purpose should include high quality, interactive workshops and implementation support (i.e., coaching) with performance feedback (Steed &Smith, 2015). Based on the results of the needs assessment conducted with preschool teachers prior to professional development activities, at minimum, these trainings should focus on (a) universal classroom strategies as they lay the foundation for high quality classrooms and instruction, (b) social-emotional teaching strategies to support development of problem solving and friendship skills as well as social skills, play skills, and emotional regulation, and (c) individualized behavior support plans to address sustained challenging behaviors (Steed & Roach, 2017). Moreover, preschool teachers should be provided with focused training on how to support social-emotional competence of young children during pre-service education.

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