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Hostile behaviors in preschoolers' physical play: Gender effects

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Abstract

Through physical play children enjoy and learn in a holistic manner. Preschools can provide many opportunities to enhance children's social skills, via social interaction and cooperation in physical play. Deficits in social skills can have short-term detrimental effects on children's development as well as long-term impacts later in their life. Although research has emphasized the beneficial effects of physical play on children's social competence, studies on problem behaviors of preschool children in physical play, are limited. The present study aimed at identifying hostile behaviors of preschool children during physical play and possible gender differences in this regard. It is part of a broader research which aims to evaluate the social skills of preschool children in different settings, after testing the psychometric properties of MESSY-II in Greek population. One hundred preschool children, 2.5-3.5 years of age participated. Hostile behaviors were assessed by children's teachers with MESSY-II (Matson, Neal, Worley, Kozlowski, & Fodstad, 2012). T-test for independent samples indicated that boys were rated as presenting significantly more hostile behaviors than girls during physical play. These differences should be taken into account in developing treatment as well as preventive strategies to facilitate preschool children's social development.

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1. Introduction

Research evidence revealing the importance of peer relations and social competency in children's social, emotional, and academic adjustment, from infancy through adulthood, has stimulated an increased interest on

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social skills (Hay, Payne, & Chadwick, 2004). Social skills are considered as interpersonal and self-related behaviors that can be learned (Gresham & Elliot, 1990). They are essential for the formation of relationships, the quality of social interactions, and mental health (Parker & Asher, 1987). The study of young children's social skills can be divided into two broad areas: adaptive and problem behavior (Merrell, 1996). Conversely, social competence is viewed as a summative judgment of others (e.g., parents, teachers, peers) on the effectiveness of a person's social behavior (McFall, 1982). Thus, a socially competent person produces social outcomes effectively, and receives positive judgment by others.

Ladd (2000) argued that unless children achieve a minimal level of social competence around the age of six years, it is likely to be seriously at risk into adulthood. Specifically, children who do not acquire positive social skills often have negative relationships (Hay et al., 2004), and it is more likely to experience rejection, social isolation, unhappiness, and loneliness (Asher, Parkhurst, Hymel, & Williams, 1990). Inadequate development and performance of social skills is also related to problem behavior, poor school adjustment, academic underachievement, and early dropping out of school (Segrin, 2000). In contrast, children that experience positive peer interactions have the opportunity to learn adaptive social behaviors (Parker & Asher, 1987) and to achieve psychological adjustment and success both in the education environment (Schroeder & Gordon, 2002), and in physical activity and sport settings (Bebetsos & Konstantoulas, 2006). The development of social skills in preschool children is affected by their relationships with their families and peers, their social environment, school and media. However, while positive family interaction is important in the first few years of children's life, later peer interaction becomes more important.

Studies highlighted the importance of play-based social interaction on the development of social competence within the preschool and school environment (Smith, 2010). Games played with peers vary children's social experiences which in turn assist them in acquiring self-awareness (Çimen & Koçyigit, 2010) and social competence (Howes, Matheson, & Hamilton, 1994). In the Kindergarten Teacher Guide in Greece (Pedagogical Institute, 2006), physical play, free and structured, in the school environment, appears as a means to teach concepts and skills from all domains of children's development. Accordingly, Silverman and Ennis (2003) argued that physical play provides children with numerous opportunities to develop fundamental movement skills such as jumping, throwing, catching, kicking etc., but also to enhance peer (and nature) interaction, critical and creative thinking, social skills and values, and to acquire valuable physical activity habits. The study of Trevlas and Tsigilis (2008) reinforced the perspective that children's development in one domain (e.g., motor, cognitive, emotional, or social) affects their development in the other domains as well.

Literature study also showed that the development of relationships, social skills, and problem behavior often differs by gender, starting at early age. While girls are more likely to acquire advanced social skills and achieve high academic competence, boys have often more problem behaviors (e.g., Keane & Calkins, 2004; Milfort & Greenfield, 2002), across the socioeconomic spectrum (DiPrete & Jennings, 2012). According to Gilliam (2005), boys are five times as likely as girls to be expelled from pre-kindergarten. In contrast, other studies indicated only strong tendencies towards problem behavior by boys (Entwisle, Alexander, & Olson, 2005) or no significant gender differences (Matson, Rotatori, & Helsel, 1983; Wong, Lok, Lo, & Ma, 2008). It has to be taken into consideration though that the aforementioned studies evaluated kindergarten or elementary school children's behaviors on one hand and on the other they focused on settings other than physical play-based ones. In addition, further examination of the psychometric properties of existing evaluation instruments of social skills for very young children has been suggested (e.g., Matson, Neal, Worley, Kozlowski, & Fodstad, 2012).

The present study extends earlier research by examining problem behaviors of very young children in physical play using teachers' ratings, after validating MESSY II (Matson et al., 2012) in Greek preschoolers. Early identification of social skills allows both a better prognosis and an early intervention, before the emergence of more serious problem behavior (Matson et al., 2012). Also, teachers' ratings are most commonly used to assess young children's social skills as they are the ones that have the opportunity to observe children over extended periods of time, and thus they are very familiar with their social interactions and skills. Teachers have been also found reliable and predictive of children's outcomes during childhood and even into adulthood (Schweinhart, Barnes, & Weikart, 1993).

Given the pervasiveness of social difficulties and their association with multiple risks, the limited research on very young children's problem behaviors during physical play, both internationally and in our country, and the

contradictory findings with regard to gender, the present study aimed at identifying hostile behaviors of preschool children during physical play and possible gender differences in this regard. The study hypothesis was that boys would be rated higher on these behaviors than girls.

2. Method

2.1 Participants

One hundred children; 50 boys and 50 girls, 2.5 to 3.5 years of age ($M=3.1, SD=0.3$), from the broader region of Attica, Hellas, were evaluated by their teachers ($n=8$) in terms of the hostile behaviors they present during physical play.

2.2 Instrument

The Matson Evaluation of Social Skills With Youngsters (MESSY II; Matson et al., 2012) was used to evaluate children's behaviors. The instrument has been translated into nine languages and researched internationally, but it is the first time that it is examined and applied in Hellas, and in preschool children. The instrument includes three factors (factor 1: hostile, factor 2: adaptive/appropriate, and factor 3: inappropriately assertive/overconfident) with respective behaviors in each one which are rated on a Likert-type rating scale from 1 ("not at all") to 5 ("very much"). In the present study, teachers rated children on the hostile factor, on which 19 out of its 27 items were loaded via the Confirmatory Factor analysis we conducted in an earlier unpublished study. Loaded items are shown in Table 1.

2.3 Procedure

After contacting the schools, the authors explained the purpose of the study to teachers and parents. After receiving parental consent, the teachers were required to evaluate problem behavior during physical play; according to the perceptions they formed for each child from the beginning of the school year until the day they completed the questionnaire (about seven-month period). Data were analyzed using SPSS software 16.0 for windows.

3. Results

Table 1. Means and standard deviations of children's hostile behaviors during physical play.

Items/Behaviors	Boys		Girls	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
2. Threatens people or acts like a bully	2.5	1.28	1.86	.85
3. Becomes angry easily	3.01	1.24	2.43	1.27
5. Gripes or complains often	3.13	1.3	2.97	1.34
8. Brags about self	2.41	1.02	2.13	.97
12. Feels angry or jealous when someone else does well	2.16	1.05	1.78	.75
16. Lies to get what he/she wants	2.33	.99	1.93	.83
17. Picks on people to make them angry	2.92	1.22	2.30	1.2
21. Hurts others' feelings on purpose	2.39	1.26	1.69	.78
22. Is a sore loser	2.83	1.22	2.43	1.11
23. Makes fun of others	2.86	1.25	2.30	1.11
24. Blames others for own problems	2.62	1.18	2.17	.99
32. Thinks people are picking on him/her when they are not	2.58	.92	2.39	1.1
36. Brags too much when he/she wins	2.79	1.14	2.53	1.15
52. Gets in fights a lot	2.81	1.30	1.95	.98
53. Is jealous of other people	2.37	.94	2.02	.74
60. Hurts others to get what he/she wants	2.83	1.25	2.19	1
62. Thinks that winning is everything	2.41	1.15	1.93	.82
63. Hurts others' feelings when teasing them	2.35	1.07	1.82	.82
64. Wants to get even with someone who hurts him/her	2.6	1.29	1.54	.83

Means and standard deviations of children's behaviors are presented in Table 1. It can be seen that boys were rated higher than girls in each hostile behavior. To find whether statistically significant gender differences existed on the evaluated problem behaviors, as these were rated by teachers, statistical comparisons of MESSY II results were conducted using independent samples t-test analysis. Results showed a statistically significant difference between boys and girls on hostile behaviors during physical play ($t_{98} = 3.65, p < .001$). Boys ($M = 2.61, SD = .78$) were rated as presenting significantly more hostile behaviors than girls ($M = 2.09, SD = .62$).

4. Discussion and Conclusion

The aim of this study was to identify children's hostile behaviors during physical play as these were assessed by MESSY II (Matson et al., 2012), and to determine whether statistically significant differences exist between boys and girls, 2.5 to 3.5 years of age, in these behaviors. Results indicated that boys were rated higher than girls on all hostile behaviors. On the contrary, girls had a significantly lower total rate of hostile behaviors than boys. The finding is consistent with the study hypothesis and the findings of earlier studies (e.g., Christodoulides, Derri, Tsivitanidou, & Kioumourtoglou, 2012; Keane & Calkins, 2004), although those concerned older children. Given that the lower rate of antisocial behavior of girls in early childhood persists into the pre-school and elementary years, across the socioeconomic spectrum (DiPrete & Jennings, 2012), the present study's results are encouraging only for girls.

From a social constructivist perspective, gender differences in social skills stem from parental and school environments that express different expectations for girls and boys (Jackson & Moore, 2008). With regard to family socialization processes, study literature indicated that young boys are raised with more independence in comparison to young girls which, in contrast, are raised with more social control and other-oriented behavior. Interaction in competitive social settings (e.g., in physical play with peers) may strengthen behavior patterns for boys that are likely not aligned to adult behavior norms (Lopez, 2003).

Girls' lower rate in hostile behaviors may also reflect their teachers' higher expectations (Abdi, 2010). Specifically, girls begin school with more advanced social skills than boys (DiPrete & Jennings, 2009), and they continue to retain the advantage on social ratings not because of different maturation rates but rather because they adapt better to teacher expectations (Jackson & Moore, 2008); i.e., they follow rules, listen carefully, and cooperate with other children. It is also likely that teachers' behaviors affect children's social skills as well as their appropriate involvement in play as the interactions between teachers and children are frequent and intense in preschool settings (Tizard, Philips, & Plewis, 1976). Jackson and Moore (2008) argued that this bias reflects further on the different effect of social and behavioral skills on academic achievement of boys and girls. Nevertheless, Duncan et al. (2007), based on a re-analysis of data on early elementary school children, argued that the relation between problem behavior and academic achievement is mainly attributed to cognitive attention problems.

Despite of the explanation on the gender gap in regards to social skills, data acquired from the present study call for a reconsideration of both family and school processes that affect children's social development. Besides, empirical evidence yielded that without intervention, childhood problem behaviors are likely to be relatively stable and continuous (Ollendick, Weist, Borden, & Greene, 1992). Therefore, young children, boys particularly, should be the focus of physical play interventions that encourage more positive social interaction rather than competition with others. At the same time, such interventions could assist girls to retain or enhance their social and behavioral advantages.

In particular, movement programs with social structure should be designed and implemented within the daily preschool program. Teachers should design their daily lessons to enhance children's social skills (e.g., cooperation with others, express and cope feelings, defeat, etc.), in physical play settings, and at the same time to provide a positive and cooperative climate in order to enhance children's skills and increase their academic learning time (Derri, Emmanouilidou, Vassiliadou, Kioumourtoglou, & Loza Olave, 2007). Teachers may also evaluate children's progress and provide direct feedback and rewards for social skills and positive behaviors that are performed during physical play. Children's evaluation could also allow teachers to draw conclusions for the effectiveness of their programs. Further, considering that teachers, as role models, influence indirectly children's social development, they themselves could contribute further to the effectiveness of their intervention programs by modeling positive social skills and behaviors. As Phyfe-Perkins (1981) argued, when teachers provide educational climates that enhance children's social skills, use positive discipline strategies, and interact with them positively, children are more likely to

become socially competent. In contrast, negative teacher behavior, use of inappropriate discipline strategies, and creation of a competitive climate can affect negatively children's social competence by lowering their self-esteem and in turn deteriorating their interactions with others.

Participating children came from a certain area of Hellas and were evaluated merely by their teachers. These might be considered limitations of the current study. Therefore, further investigation is warranted to examine children's problem behaviors using a broader sample, and other evaluation sources as well (e.g., parents' reports, teacher and parent interviews). Such an approach could deepen researchers', teachers', and parents' understanding on children's hostile behaviors, and it could facilitate future research, intervention, and early identification processes.

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