Abstract

This study examined the mediating role of children’s playfulness in the relationship between parental play supportiveness and children’s prospective peer problems in a sample of Hong Kong Chinese kindergarten children. Participants were parents and teachers of 108 local children (56% boys, mean age = 60.0 months). At time 1, parents reported their supportiveness towards household play and their child’s playfulness through a questionnaire. Six months later at time 2, teachers reported children’s peer problems as exhibited in the kindergarten. A path analytic model revealed that, controlling for child age, gender, and birth order, parental play supportiveness and children’s playfulness at time 1 were positively associated, and that playfulness at time 1 negatively predicted peer problems at time 2. The indirect relationship between parental play supportiveness and peer problems as mediated through playfulness was significant, whereas the direct relationship between parental play supportiveness and peer problems was non-significant. These findings suggest that parents who support children’s household play may promote children’s capacity to establish positive peer relationships by improving their level of playfulness. Practically, the results highlight the utility of fostering parental play supportiveness and children’s playfulness to support kindergarten children’s social development.

**Keywords:** parental play supportiveness, playfulness, peer problems, kindergarten children, indirect relationship

Parental play supportiveness and kindergartners’ peer problems: Children’s playfulness as a potential mediator

**Introduction**

Playfulness of kindergarten children, defined as their tendency to engage in playful situations and encounters (Barnett, 1991; Lieberman, 1977), is indicative of their general play styles and play behaviors. As play is central to children’s early development (e.g., Piaget, 1976; Vygotsky, 1967), accumulating research has examined the antecedents of children’s playfulness (e.g., Bulgarelli, Bianquin, Besio, & Molina, 2018; Fung & Chung, 2021; Hamm, 2006; Rentzou, 2013) and how playfulness predicts growth in domains such as creativity (Fung, Chung, & He, 2021) and social competence (e.g., Barnett, 2018; Fink, Mareva, & Gibson, 2020). Although parental play supportiveness (i.e., endorsement of children’s choice and willingness to support household play) was suggested as an important correlate of children’s playfulness (e.g., Barnett & Kleiber, 1984; Rentzou, 2013), little research has investigated their connectedness. Furthermore, prior research examining the predictive link between children’s playfulness and social development yielded inconclusive findings (e.g., Barnett, 2018; Fink et al., 2020). The present study aimed to fill these gaps by investigating how parental play supportiveness and children’s playfulness would directly and indirectly predict children’s prospective peer problems in a sample of Hong Kong Chinese kindergarten children.

**Parental play supportiveness and children’s playfulness**

Kindergarten children’s playfulness is defined as their general propensity to show distinctive patterns of playful behaviors and the extant literature (e.g., Barnett, 1991, 2018; Lieberman, 1977) suggests there are five constituent components: physical spontaneity (physical coordination, dexterity, and activity level), social spontaneity (fondness for social interaction), cognitive spontaneity (originality and imagination), manifest joy (positive emotional expressivity), and sense of humor (production and enjoyment of funny atmosphere). To understand the factors that may determine children’s playfulness, a line of research has examined its antecedents. For example, a recent study reported that children’s innate characteristic of overexcitability was associated with their playfulness (Fung & Chung, 2021). Apart from individual characteristics, research has also investigated the contextual antecedents of playfulness such as parent characteristics (e.g., occupation; Barnett & Kleiber, 1984), family structure (e.g., birth order; Keleş & Yurt, 2017; Rentzou, 2013), and household environmental supportiveness (e.g., play items and settings; Bulgarelli et al., 2018; Hamm, 2006). Parental play supportiveness, defined as parents’ endorsement of children’s play preferences and willingness to offer play support, was suggested as another factor that might impact children’s playfulness (e.g., Barnett & Kleiber, 1984; Rentzou, 2013). Parents with higher levels of play supportiveness consider children’s interest and initiative and are less likely to dominate the household play. These parents also tend to provide better guidance, accompaniment, and increased opportunities for their child to play (Schneider & Rosenblum, 2014), that may contribute to children’s playfulness. Surprisingly, little attempt has been made to examine the association between parental play supportiveness and children’s playfulness, except a previous study showing that parents’ child-rearing practice of permissiveness was unrelated to their child’s playfulness (Barnett & Kleiber, 1984). The present study expanded previous work by investigating the link between parental play supportiveness and playfulness, and how these factors collectively predict children’s subsequent peer problems.

**Parental play supportiveness and children’s playfulness and peer problems**

Children start out being self-centred, and the coordination of play with peers could be viewed as one of their overriding social goals in kindergarten (Beaty, 2014). To take part in school peer play effectively, children need to gain access to ongoing play, discuss the roles and direction of play, decide and reiterate ownership of toys and materials, and resolve play conflicts constructively (Beaty, 2014; Fung & Cheng, 2017). Therefore, children’s peer problems are readily manifested in their play interaction. Given that playfulness is represented as children’s general pattern of playful behaviors across various conditions, locations, and resources (Barnett, 1991; Trevlas, Grammatikopoulos, Tsigilis, & Zachopoulou, 2003), more playful children tend to be skillful players (e.g., higher capacities to move in and out social play, contribute creative play ideas, and lead peer play; Barnett, 2018) and they may also be more resourceful in establishing and maintaining harmonious peer play interaction. Consequently, these children are less likely to show peer problems in the kindergarten context. Recent research has examined the relationship between children’s playfulness and social development, but the findings were inconclusive. For instance, Fink and colleagues (2020) reported that kindergarten children’s playfulness positively predicted their future peer play interaction, but that playfulness was unrelated to teacher-reported peer relationships. Likewise, Barnett (2018) reported that kindergarten children’s playfulness was not significantly associated with their prospective teacher-rated social competence and disruptive behaviors in grade one. Furthermore, Rentzou (2014) reported that children’s playfulness was negatively related to peer play behaviors, and positively associated with reticent and solitary-passive play behaviors. Thus, the relationship between kindergarten children’s playfulness and peer problems warrants further investigation.

Ample research has examined how different parenting approaches would predict children’s peer problems. For example, authoritative parenting practices such as consistent discipline and lack of harsh punishment negatively predicted children’s future peer problems (Yamagata et al., 2013). In contrast, hostile parenting (e.g., coercion, poor monitoring, and reduced warmth) positively predicted children’s later peer problems (Leve et al., 2019). Furthermore, insecure attachment styles (e.g., avoidant and disorganized) were also suggested as the antecedents of children’s teacher-reported peer problems (Seibert & Kerns, 2015). Nevertheless, these studies largely focused on general parenting practices or attitudes, and little of them have examined how parental attitudes that are closely related to children’s play characteristics or behaviors predict children’s future peer problems. Grounded in developmental theories highlighting the importance of play in children’s early development (e.g., Piaget, 1976; Vygotsky, 1967), the present study extended previous studies by examining children’s peer problems through the lense of their play characteristics and relevant parental attitudes. In particular, it was contended that parental play supportiveness may promote kindergarten children’s playfulness, while these children with increased playfulness may exhibit lower levels of peer problems in the kindergarten context.

**The present study**

This study investigated the direct relationships of parental play supportiveness and children’s playfulness with subsequent peer problems. It also examined the indirect relationship between parental play supportiveness and children’s peer problems via playfulness across two time points separated by six months. Based on the literature reviewed (e.g., Barnett, 2018; Barnett & Kleiber, 1984; Fink et al., 2020; Rentzou, 2013, 2014), it was hypothesized that the association between parental play supportiveness and playfulness at time 1 would be positive and significant. It was also anticipated that children’s playfulness at time 1 would negatively predict their peer problems at time 2. Furthermore, it was expected that the indirect relationship between parental play supportiveness at time 1 and peer problems at time 2 via playfulness at time 1 would be negative and significant. Considering the lack of theory conceptualizing or empirical evidence revealing a direct relationship, it was anticipated that the association between parental play supportiveness at time 1 and children’s peer problems at time 2 would be fully mediated by children’s playfulness at time 1.

**Method**

**Participants**

Parents (86% mothers) and teachers (all females) of 108 Hong Kong Chinese children from a local kindergarten (56% boys, mean age = 60.0 months) participated in this study. Children in Hong Kong usually attend kindergarten for three years: K1 (3 to 4 years), K2 (4 to 5 years), and K3 (5 to 6 years). At time 1, 53 of the children were at K2, whereas 55 of them were at K3. A majority of the parents (78%) were aged between 31 and 40, and 67% of them completed college or above. Seventeen teachers joined this study. Most of the teachers (>90%) had a bachelor’s degree in early childhood education and had more than one year of teaching experience.

**Procedure**

Approval was given by the ethics review board of the respective university. Written consent was also provided by the principal of the participating kindergarten. Subsequently, informed consent and questionnaire forms were sent to the parents via the kindergarten to invite their participation. Parents who were willing to join this study returned the signed consent and completed questionnaire. Seventeen class teachers of the children with positive parental consent were then invited to join this study. At time 1 (autumn of the school year), parents reported their supportiveness towards child household play and their child’s age, gender, birth order, and playfulness through a questionnaire, which could be completed in 20 minutes. At time 2 (spring of the school year), teachers reported their student’s peer problems through a questionnaire, which could be completed in 10 minutes. Parents and teachers received a supermarket coupon as compensation for their time.

**Measures**

*Parental play supportiveness at time 1*

Parental play supportiveness was assessed by items extracted from the My Child’s Play questionnaire (Schneider & Rosenblum, 2014). This measure has been employed in both international (e.g., Romero-Ayuso et al., 2021) and local (e.g., Fung & Chung, 2021) research with kindergarten children. Six items from the play choices and preferences subscale tapping parents’ beliefs in and day-to-day practices of play (e.g., “I consider my child’s play preferences”, “Daily routine includes time for playing with child”) were employed in the present study. Back-translation was performed by two experienced research assistants who were fluent in both English and Chinese, and the back-translated items were further reviewed by the research team. Parents rated the back-translated items on a 5-point scale ranging from 1 (totally disagree) to 5 (totally agree) to indicate their level of supportiveness towards child household play. The average score represented parental play supportiveness. The Cronbach’s alpha was .72.

*Playfulness at time 1*

Children’s playfulness was assessed by the Children’s Playfulness Scale (CPS; Barnett, 1991). This measure has been widely employed in tapping playfulness of kindergarten children both locally and internationally (e.g., Barnett, 2018; Fung & Chung, 2021; Keleş & Yurt, 2017; Rentzou, 2014). The CPS contained 23 items under five subscales: physical spontaneity with four items (e.g., “The child runs (skips, hops, jumps) a lot in play”, “The child prefers to be active rather than quiet in play”), social spontaneity with five items (e.g., “The child plays cooperatively with other children”, “The child assumes a leadership role when playing with others”), cognitive spontaneity with four items (e.g., “The child invents own games to play”, “The child assumes different character roles in play”), manifest joy with five items (e.g., “The child demonstrates exuberance during play”, “The child shows enthusiasm during play”), and sense of humor with five items (e.g., “The child gently teases others while at play”, “The child enjoys joking with other children”). Two experienced research assistants conducted the back-translation, and the back-translated items were further examined by the research team. Parents rated the back-translated items on a 5-point scale: 1 (not at all like) to 5 (very much like), and reverse coding was applied where appropriate. The average score represented children’s playfulness. The Cronbach’s alpha was .89.

*Peer problems at time 2*

Children’s peer problems were assessed by the peer problems subscale of the Strengths and Difficulties Questionnaire (SDQ; Goodman, 1997). The SDQ was previously employed in research with local kindergarten children (Li, Lam, & Chung, 2020) with adequate reliability and validity (e.g., Du, Kou, & Coghill, 2008; Lai et al., 2010). The peer problems subscale consisted of five items (e.g., “Rather solitary, tends to play alone”, “Generally liked by other children”). Teachers rated the back-translated items on a 5-point scale to indicate the extent to which the stated behavior correctly depicted the child: 1 (totally disagree) to 5 (totally agree), and the coding was reversed where appropriate. The average score represented children’s peer problems. The Cronbach’s alpha was .79.

**Data analysis plan**

Considering the small sample size in the present study, a path model for predicting children’s peer problems at time 2 from playfulness (the grand mean) and parental play supportiveness at time 1 controlling for child age and gender was estimated with the lavaan package (version 0.6-5) in R (version 3.6.1; R Core Team, 2021). Given the empirical evidence suggesting the association between children’s birth order and playfulness (e.g., Keleş & Yurt, 2017; Rentzou, 2013), birth order was additionally controlled for playfulness. Overall model fit was evaluated by the Chi-square index (χ2, non-significant), comparative fit index (CFI ≥ .95), non-normed fit index (NNFI ≥ .95), root mean square error of approximation (RMSEA ≤ .06), and standardized root mean square residual (SRMR ≤ .08) (Hu & Bentler, 1999). The significance of the indirect effect of parental play supportiveness, child playfulness, and peer problems was assessed by using the bias-corrected bootstrapping method with 2000 resamplings (Hayes, 2009).

**Results**

**Preliminary analyses**

Table 1 reveals the descriptive statistics and bivariate correlations of the study variables. The data were complete without missing value, and the skewness and kurtosis of all variables were between the range of plus and minus one. Parental play supportiveness at time 1 was positively associated with playfulness at time 1 (*r* = .39, *p* < .001) but negatively related to peer problems at time 2 (*r* = -.27, *p* < .01). Playfulness at time 1 was negatively correlated with peer problems at time 2 (*r* = -.32, *p* < .01). Regarding the individual components of playfulness, all five aspects were positively related to concurrent parental play supportiveness (*rs* = .22 to .50, *p* < .05). Moreover, social spontaneity (*r* = -.32, *p* < .01), cognitive spontaneity (*r* = -.28, *p* < .01), and manifest joy (*r* = -.35, *p* < .01) at time 1 were negatively associated with peer problems at time 2, but not physical spontaneity and sense of humor. Although child birth order, age, and gender were not significant correlates of children’s playfulness and peer problems, these variables were statistically controlled for further analysis given their established predictive roles in previous findings (e.g., Eggum-Wilkens et al., 2014; Rentzou, 2013).

**Path model for predicting peer problems**

The path model for predicting peer problems at time 2 from playfulness and parental play supportiveness at time 1 controlling for child age, gender, and birth order is presented in Figure 1, which fit the data well: χ2 (*df* = 2, *N* = 108) = 1.45, *p* = .48, CFI = 1.00, NNFI = 1.08, RMSEA = .00 (90% CI: .00, .18), SRMR = .02, *R2 Playfulness at time 1* = .21, *R2 Peer problem at time 2* = .13. The direct relationship between parental play supportiveness at time 1 and peer problems at time 2 was non-significant (*β* = -.16, *SE* = .15, *p* = .20). In contrast, the relationships between (1) parental play supportiveness and playfulness at time 1 (*β* = .42, *SE* = .09, *p* < .001), and (2) playfulness at time 1 and peer problems at time 2 (*β* = -.26, *SE* = .14, *p* < .05) were both significant. The indirect relationship between parental play supportiveness at time 1 and peer problems at time 2 as mediated through children’s playfulness at time 1 was significant (*βind* = -.11, *p* < .05, 95% CI = [-.25, -.01]).

**Discussion**

This study investigated the associations among parental play supportiveness, playfulness, and peer problems in Hong Kong Chinese kindergarten children. The results reveal that parents’ play supportiveness positively predicted their child’s playfulness, which in turn, negatively predicted children’s peer problems as perceived by the teachers. The present findings expand existing studies (e.g., Barnett, 2018; Barnett & Kleiber, 1984; Fink et al., 2020; Rentzou, 2013, 2014) by suggesting the potential mediating role of playfulness in the relationship between parental play supportiveness and peer problems in kindergarten children across time.

**Relationship between parental play supportiveness and playfulness**

As expected, the relationship between parental play supportiveness and playfulness was positive and significant. Parents showing higher levels of supportiveness to children’s play are more likely to create both human (e.g., interaction and support) and non-human elements (e.g., materials and opportunities) in the home environment that are conducive to children’s playfulness (Bundy, 1999; Hamm, 2006). For example, these parents tend to have more frequent verbal interaction (Fung & Chung, 2019) and scaffolding (Lunkenheimer & Wang, 2017) during play that may sustain and promote children’s level of enjoyment. Similarly, the parents may provide a wider range of accessible play materials and increase the opportunities to play in the daily schedule (MacPhee, Prendergast, Albrecht, Walker, & Miller-Heyl, 2018) that foster children’s playfulness (Hamm, 2006). However, as both parental play supportiveness and children’s playfulness were reported by the parents at time 1, the present findings indicated no direction of effect. For instance, it is also possible that more playful children may actively construct a supportive play environment through the increased seeking of parental response and acquisition of play materials. Future research may examine the directional relationship between parental play supportiveness and children’s playfulness by using a longitudinal design and investigating potential mediators such as increased parent-child play interaction and a wider range of play materials (Lunkenheimer & Wang, 2017; MacPhee et al., 2018).

**Relationship between playfulness and peer problems**

Aligned with the hypothesis, the present results extended previous works (e.g., Barnett, 2018; Fink et al., 2020) by revealing how kindergarten children’s playfulness negatively predicted their subsequent peer problems. Playful children may be more resourceful in establishing positive peer play interaction. Specifically, children’s superior physical, cognitive, and social spontaneity may enable them to better plan and execute play actions, generate attractive play ideas, and effectively engage play partners (Bar‐Haim & Bart, 2006; Fung & Chung, 2021; Uren & Stagnitti, 2009). Similarly, children who express joy and have a sense of humor are more likely to elicit positive emotional exchanges among the peers and create enjoyable play experiences. Consequentially, these children were perceived by their teachers as showing lower levels of peer problems. Although the present results demonstrated the significant negative relationship between playfulness and peer problems across time, the number of participants in this study was small and the hypothesized path model was not able to inform the individual contributions of different aspects of playfulness on reducing children’s peer problems. Future studies with an increased sample size are needed to model different indicators of playfulness separately and disentangle their possible impacts on children’s peer problems.

**Relationships among parental play supportiveness, playfulness, and peer problems**

Importantly, the indirect relationship among parental play supportiveness and children’s playfulness and peer problems was significant. Parents who were more supportive of household play may be able to promote their child’s playfulness, while increased playfulness may enable these children to develop better peer relationships. Worth noting, in Table 1, parental play supportiveness was negatively correlated with children’s later peer problems; but this relationship was fully mediated by playfulness in the path model. This finding is particularly important to alter parents’ mindset in support of the play-based learning approach (Curriculum Development Council of HKSARG, 2017). Although tremendous effort has been made (Keung & Fung, 2021), play and learning in the kindergarten context are often dichotomized (Nilsson, Ferholt, & Lecusay, 2018) and there are still obstacles to the successful implementation of the play-based learning approach in Hong Kong, such as parental endorsement (Fung & Cheng, 2012). Specifically, parents may understand the benefits of play on early child development, but they are not convinced that the play-based learning approach is the most appropriate way to boost children’s academic skills (Fung & Cheng, 2012). Given the emerging evidence suggesting the positive impacts of social-emotional competence on kindergarten children’s school readiness (e.g., Blair & Raver, 2015; Campbell et al., 2016; Denham & Brown, 2010; Hernández et al., 2016), playful children may be more capable to establish positive peer relationships that enable them to navigate across and take part in different classroom activities (Galindo & Fuller, 2010). Apart from rote learning and drills, there may exist an alternative pathway that parents can enhance children’s school readiness; and the present results suggest the utility of promoting parents’ supportiveness towards play to increase children’s playfulness and, in turn, reduce children’s peer problems. Further research may examine whether and how parental play supportiveness would predict children’s future playfulness, peer relationships, and school readiness.

**Limitations**

The present study has at least three limitations. First, this study relied on informants’ ratings of parental play supportiveness (i.e., by parents), playfulness (i.e., by parents), and peer problems (i.e., by teachers). The COVID-19 pandemic has caused prolonged school suspension, which drastically reduced children’s school play time as well as teachers’ opportunities to observe children’s play. Therefore, in this study, parents were regarded as the appropriate informants of children’s playfulness, and this approach was employed in previous research (e.g., Fung et al., 2021; Holmes, 2001). Nevertheless, the shared method variance between parental play supportiveness and playfulness is a limitation in the research design. For example, parents’ supportiveness towards play might influence their reports of how playful their child is. Further studies may involve multiple informants (e.g., both fathers and mothers, and teachers) to triangulate the results. Apart from informant ratings, replication studies could also use independent scoring of observational measures like the Test of Environmental Supportiveness (Bundy, 1999) and the Test of Playfulness (Bundy, Nelson, Metzger, & Bingaman, 2001) to validate the present findings. Second, the number of participants is small. Future research with a larger sample size is required to test the robustness of the present results. Furthermore, a larger sample size enables the employment of more sophisticated approaches (e.g., structural equation modeling) to model different aspects of playfulness simultaneously and better infer how the individual factors may contribute to children’s peer problems. Lastly, as both parental play supportiveness and playfulness were reported at time 1, the research design precluded inference about true longitudinal mediation. Relatedly, teacher-reported peer problems were only available at time 2 but not at time 1. Longitudinal studies with repeated measures of children’s playfulness and peer problems are needed to examine the causality.

**Conclusions and Implications**

Despite these limitations, the present study contributed to the developmental theory by demonstrating the possible mediating role of playfulness in the relationship between parental play supportiveness and children’s peer problems across time. Parents who are more supportive of household play may increase their child’s playfulness, which may, in turn, lower children’s peer problems in the kindergarten. Practically, intervention efforts targeting parents’ supportiveness towards play and children’s level of playfulness (e.g., promoting parents’ level of playfulness; Shen, Chick, & Pitas, 2017) may promote kindergarten children’s social and emotional development and positive relationships with their peers.

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Table 1

*Descriptive statistics, reliabilities, and bivariate correlations of study variables.*

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  |  |  | Correlations | | | | | | | | | | |
| Variables |  |  | (1) | (2) | (3) | (4) | (5) | (5i) | (5ii) | (5iii) | (5iv) | (5v) | (6) |
| 1. Child gender |  |  | -- |  |  |  |  |  |  |  |  |  |  |
| 2. Child birth order |  |  | .05 | -- |  |  |  |  |  |  |  |  |  |
| 3. Child age (months) |  |  | .01 | -.23\* | -- |  |  |  |  |  |  |  |  |
| 4. T1 Parental play supportiveness |  |  | .17 | .04 | .12 | -- |  |  |  |  |  |  |  |
| 5. T1 Playfulness (the grand mean) |  |  | -.02 | -.17 | .12 | .39\*\*\* | -- |  |  |  |  |  |  |
| (i) T1 Physical spontaneity |  |  | -.07 | -.11 | .10 | .22\* | .75\*\* | -- |  |  |  |  |  |
| (ii) T1 Social spontaneity |  |  | .07 | -.15 | .09 | .31\*\* | .84\*\* | .58\*\* | -- |  |  |  |  |
| (iii) T1 Cognitive spontaneity |  |  | .08 | -.14 | .10 | .27\*\* | .76\*\* | .32\*\* | .55\*\* | -- |  |  |  |
| (iv) T1 Manifest joy |  |  | .03 | -.12 | .06 | .50\*\* | .78\*\* | .53\*\* | .61\*\* | .52\*\* | -- |  |  |
| (v) T1 Sense of humor |  |  | -.17 | -.13 | .12 | .26\*\* | .76\*\* | .45\*\* | .50\*\* | .52\*\* | .46\*\* | -- |  |
| 6. T2 Peer problems |  |  | -.06 | .01 | -.04 | -.27\*\* | -.32\*\* | -.17 | -.32\*\* | -.28\*\* | -.35\*\* | -.16 | -- |
| Descriptive statistics | Mean | | -- | 1.41 | 60.00 | 4.02 | 3.73 | 3.91 | 3.55 | 3.61 | 4.12 | 3.44 | 2.00 |
| *SD* | | -- | .55 | 7.23 | .59 | .54 | .74 | .71 | .75 | .56 | .73 | .70 |
| Minimum | | -- | 1.00 | 40.00 | 2.40 | 1.84 | 1.75 | 1.80 | 1.67 | 2.00 | 1.60 | 1.00 |
| Maximum | | -- | 3.00 | 78.00 | 5.00 | 4.83 | 5.00 | 5.00 | 5.00 | 5.00 | 5.00 | 4.00 |
| Skewness | | -- | .90 | -.10 | -.29 | -.25 | -.57 | -.10 | -.40 | -.32 | .06 | .35 |
| Kurtosis | | -- | -.24 | -.63 | -.36 | .31 | -.06 | -.45 | -.05 | .89 | -.54 | -.34 |
| Cronbach’s alpha | | -- | -- | -- | .72 | .89 | .71 | .78 | .71 | .70 | .73 | .79 |
| *Note:* \* *p* < .05; \*\* *p* < .01; \*\*\* *p* < .001. T1 = time 1; T2 = time 2; For child gender, boy = 0 and girl = 1. | | | | | | | | | | | | | |

Figure 1.

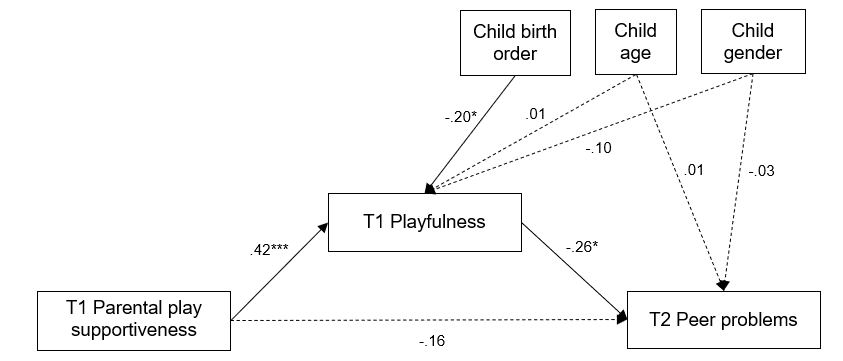


Figure Legends

Figure 1. Path model for predicting children’s peer problems from parental play supportiveness and playfulness controlling for child age, gender, and birth order. Standardized coefficients are reported. Solid paths are statistically significant. Dashed paths are non-significant. T1 = time 1; T2 = time 2; \* *p* < .05; \*\* *p* < .01; \*\*\* *p* < .001. Fit indices: χ2 (*df* = 2, *N* = 108) = 1.45, *p* = .48, CFI = 1.00, NNFI = 1.08, RMSEA = .00 (90% CI: .00, .18), SRMR = .02, *R2 Playfulness at time 1* = .21, *R2 Peer problem at time 2* = .13.