Childhood Playtime, Parenting, and Psychopathology in Emerging Adults: Implications for Research and Play Therapists

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Research links decreased playtime during early education and rigid parenting to poorer outcomes in children. However, it is not known how the effects of playtime extend into emerging adulthood. Thus, the current study examines perceived parenting, perceived childhood playtime, and psychopathology as reported by 328 emerging adults ranging in age from 18 to 25 years. Measures of perceived parenting included the Parental Bonding Instrument, Parental Authority Questionnaire, and Parental Environment Questionnaire. A perceptions of play questionnaire was developed to measure childhood playtime for the current study. Measures of psychopathology included the Rosenberg Self-Esteem Inventory and the Adult Self-Report. Structural equation modeling was used to examine correlations among the latent factors in measurement models and path coefficients in structural models. Results indicate that perceived positive parenting and perceived childhood playtime are associated with reported psychopathology. Further, perceived positive parenting is associated with perceived childhood playtime in females but not in males. Overall, results suggest the importance of childhood playtime as well as gender effects related to parenting. Implications of results are discussed as related to research and practice, including play therapy.

Keywords: parenting, gender, play, emerging adulthood, parent–child relationships

Some researchers believe that half of intelligence is acquired in the first 4 years of life (Hirsh-Pasek, 1991). Related to this, many consider that children should be given as much knowledge as possible. As a consequence, children currently are being allowed less time to play and are encouraged to dedicate more time for academic work (Zigler, 1987; Winerman, 2009). In fact, educational systems increasingly are focusing their early education programs on academic achievement, which invariably decreases the amount of spontaneous play in which children engage (Winerman, 2009). Winerman (2009) discusses research by Hirsh-Pasek suggesting how this decrease in playtime and increase in educational activities may have the paradoxical effect of impeding cognitive development. Although research adequately addresses the role of play in cognitive development (i.e., children seem to learn and develop cognitively most effectively through self-guided free play;

This article was published Online First June 25, 2012.
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International Journal of Play Therapy
2012, Vol. 21, No. 4, 215–231

1555-6824/12/$12.00 DOI: 10.1037/a0029172

Hanline, 1999; Hirsh-Pasek, 1991; Hirsh-Pasek, Golinkoff, Berk, & Singer, 2009; Winerman, 2009), less research addresses the impact of play on psychological adjustment. Further, although extant research investigates the impact of playtime during childhood, less research examines longer-term effects of playtime extending into emerging adulthood. Thus, the current study investigates the effects of childhood playtime and parenting on psychopathology as reported by emerging adults.

TYPES OF PLAY

Because play entails many different activities, conceptualizing the term may be difficult. Although many conceptualizations of play exist, Wolfgang and Wolfgang (1992) define play by noting that children should have access to sensorimotor, symbolic, and construction play. Specifically, as children develop, they move from sensorimotor play to more symbolic play and later to more construction play. During sensorimotor play, children learn about their environment through their senses. For instance, children may run, climb, or push toy trucks. During symbolic play, children use role-playing and imagination to make-believe their circumstances. For example, children may pretend that they are mom and dad preparing dinner. During construction play, children use materials to construct something. For example, children may build a fort out of pillows or create something with Play-Doh. Fisher, Hirsh-Pasek, Golinkoff, and Gryfe (2008) state that, in addition to the types of play described above, children may engage in structured and unstructured play. Structured play includes goal-oriented activities, whereas unstructured play includes imaginative and creative activities (Fisher et al., 2008).

ADJUSTMENT AND PLAYTIME

Although some believe that playtime is not constructive for learning (e.g., parents may feel that children should be learning academics instead of engaging in play; Elkind, 2001, 2007), research has indicated that playtime actually facilitates different types of learning in children (Hirsh-Pasek et al., 2009; L'Abate, 2009; Singer, Golinkoff, & Hirsh-Pasek, 2006; Van Dalen, 1947). Hanline (1999) commented that "providing an early childhood setting in which child-initiated, child-directed, teacher-supported play serves as the primary context in and the major activity through which young children learn" (p. 289). For example, one type of learning that playtime may help develop is social learning. Vygotsky (1990) studied the importance of play and make-believe in children's development, especially higher mental functions. Through play, Vygotsky (1990) contended that children also learn social rules, social roles, and self-regulation. In fact, Hirsh-Pasek et al. (2009) state that formal education and social development are intertwined, and hence, formal, academic learning cannot override the attention spent on social development. In addition to facilitating social learning, researchers further state that playful learning is a powerful tool for children to learn academically and intellectually, for example, by improving attention span and cognitive development (Singer et al., 2006; Van Dalen, 1947). Play also may help children improve their

emotional development by dealing with their emotions (Singer et al., 2006), improve their physical health and body weight (L'Abate, 2009; Van Dalen, 1947), and facilitate their spiritual development (L'Abate, 2009).

PLAYTIME AND PARENTING

Parents play a vital role in the experiences of their children, including the amount and type of play their children experience. Although parenting has been studied extensively, few studies focus on the association between play and parenting characteristics (Fisher et al., 2008). In one such study, Fisher et al. (2008) examine the relationships among maternal conceptualizations of play, perceived learning value, and frequency of children's play behaviors. They found that mothers' perceptions of play are related to their perception of their children's learning values during play and to the frequency that their children engaged in playtime. For example, if a mother believes that a certain type of play is a good learning experience, then that mother will cultivate an environment where her children can participate in that type of play. In another study, Strom (1977) found that when parents play with children, children are given learning opportunities such as solving conflicts, promoting imaginations, developing language, and sharing values. Further, parents are able to model for their children during playtime, which also is a powerful way for children to learn. Other research also suggests that secure attachment, which is related to positive parenting practices described below, is related to higher amounts of and more sophisticated free play (Belsky, Garduque, & Hrncir, 1984; Blehar, Lieberman, & Ainsworth, 1977; Marino, 1988).

ADJUSTMENT AND PARENTING

Research has demonstrated that parenting and play both influence adjustment in children (Baumrind, 1991; Hirsh-Pasek et al., 2009; L'Abate, 2009; McKinney & Renk, 2008b; Paulussen-Hoogeboom, Stams, Hermanns, Peetsma, & Wittenboer, 2008; Singer et al., 2006; Van Dalen, 1947). To better understand how play may be related to adjustment, parenting must be considered given that it is related both to play and adjustment. Historically, parenting styles have been derived from the dimensions of demandingness and responsiveness (Baumrind, 1991) or from support and control (Maccoby & Martin, 1983). Using these dimensions, Baumrind (1991) suggested that parenting styles may be categorized as authoritative, authoritarian, and permissive. When examining these categories, extant research suggests that positive parenting practices such as being high in responsiveness and support, low in conflict, and having a moderate level of control (i.e., authoritative) is the most beneficial style for children as it is related to positive adjustment (e.g., higher achievement and self-esteem, less behavioral and emotional problems; Baumrind, 1991; McKinney & Renk, 2008b; Paulussen-Hoogeboom et al., 2008). In contrast, negative parenting practices such as lacking support and responsiveness, being extremely high or low in control, high in conflict, and high in rejection are related to less positive adjustment for children (e.g., lower achievement and self-esteem,

more behavioral and emotional problems; Baumrind, 1991; McKinney & Renk, 2008b; Paulussen-Hoogeboom et al., 2008).

CURRENT STUDY

Overall, research shows that decreased playtime during early education and negative parenting as described above are related to poorer outcomes in children (Baumrind, 1991; Hirsh-Pasek et al., 2009; L'Abate, 2009; McKinney & Renk, 2008b; Paulussen-Hoogeboom et al., 2008; Singer et al., 2006; Van Dalen, 1947). Further, research on play and parenting demonstrates that parents playing with children is beneficial and that parents who believe play to be beneficial will encourage their children to play (Belsky et al., 1984; Blehar et al., 1977; Fisher et al., 2008; Marino, 1988; Strom, 1977). However, what is not known is what types of parents encourage their children to play and how play relates to psychopathology specifically as opposed to cognitive, emotional, physical, and spiritual development as described above. Further, extant research demonstrates the continued influence of parenting on emerging adults (Agliata & Renk, 2008; McKinney & Renk, 2008a; McKinney & Renk, 2008b). Again, less is known about the continued influence of childhood playtime on emerging adults.

As described by Arnett (2000), emerging adulthood is conceptualized as a developmental time period lasting from the late teenage years through the late twenties (i.e., 18 to 29 years of age). During this time, emerging adults postpone marriage and parenthood to receive further education and thus do not achieve full independence from their own parents. This period also allows emerging adults additional opportunities beyond adolescence for identity exploration rather than immediately undertaking more adult roles. Given that individuals in this demographic are experiencing significant behavioral, emotional, and physiological changes but must maintain thoroughly involved, dependent relationships with their parents, the psychological functioning of emerging adults must be further explored in several domains (Arnett, 2000; McKinney & Renk, 2008b). Given that the effects of parenting extend into emerging adulthood as noted above, it is likely that the effects of childhood playtime, which is related to parenting, also continue to influence emerging adults. Thus, the current study investigates the relationships among perceived childhood playtime, perceived parenting, and current psychopathology as reported by emerging adults.

HYPOTHESES

Hypothesis 1 states that perceived childhood playtime will be correlated negatively with reported psychopathology. This hypothesis is based on past research indicating the positive effects of play during childhood. Hypothesis 2 states that perceived positive parenting will be correlated negatively with reported psychopathology and positively with perceived childhood playtime. This hypothesis is based on past research demonstrating beneficial effects of positive parenting. Hypothesis 3 states that perceived positive parenting and perceived childhood playtime both

will predict reported emerging adult psychopathology when examined independently and that perceived childhood playtime will mediate the effects of perceived positive parenting on reported psychopathology when analyzed simultaneously.

METHOD

Participants

The sample for the current study consisted of 328 emerging adults (127 males and 201 females) who were attending a college in the Southeast United States. Participants ranged in age from 18 to 25 years ($M = 19.17$, $SD = 1.19$) and reported a traditional two-parent household. These participants were selected based on their status as emerging adults who could report on their perceptions of both parents. Participants identified their race as Caucasian (68%), African American (25.9%), Latino (1.8%), Asian (1.8%), or other (2.4%). Participants predominantly reported a middle-class background as indicated by parental education and family income.

Materials

Parental Bonding Instrument (PBI)

The PBI (Parker, Tupling, & Brown, 1979) is a 25-item scale designed to measure parental behaviors and attitudes. The measure has maternal and paternal scales and includes two variables, caring (the opposite extreme being indifference or rejection; e.g., *Speaks to me with a warm and friendly voice*) and overprotection (the opposite extreme being encouragement of autonomy; e.g., *Invades my privacy*). Items on these scales were rated on four-point Likert scales ranging from *Very Like* to *Very Unlike*. Exhibiting good internal consistency, the PBI has split-half reliability coefficients of .88 for care and .74 for overprotection in other studies (Parker et al., 1979). Showing good to adequate stability, the PBI also has 3-week test–retest correlations of .76 for care and .63 for overprotection (Parker et al., 1979). The PBI correlates significantly with independent rater judgments of parental caring and overprotection, demonstrating good concurrent validity (Parker et al., 1979). In this study, the caring and overprotection subscales were used to indicate perceived positive parenting.

Parental Authority Questionnaire (PAQ)

The PAQ (Buri, 1991) contains 30 questions, which assess parents' permissive (e.g., . . . *feels that what children need is to be free to make up their own minds and to do what they want to do*), authoritarian (e.g., . . . *feels that it is for our own good if we are forced to conform to what she/he thinks is right*), and authoritative (e.g., . . . *encourages verbal give-and-take whenever I feel that family rules and restrictions are unreasonable*) parenting styles. Participants were instructed to rate each statement

according to a five-point Likert scale ranging from *Strongly Disagree* to *Strongly Agree* and rated each statement for their mothers and fathers. Test–retest reliabilities range from .77 to .92, and internal consistency reliabilities range from .74 to .87 on the subscales (Buri, 1991). Showing discriminant validity, authoritarianism is related inversely to permissiveness and authoritativeness, whereas permissiveness is not related to authoritativeness (Buri, 1991). Criterion-related validity is established as parental warmth and authoritativeness is related positively, authoritarianism is related negatively, and permissiveness is unrelated to parental nurturance (Buri, 1991). In this study, the authoritative, authoritarian, and permissive subscales were used to indicate perceived positive parenting.

Parental Environment Questionnaire (PEQ)

The PEQ (Elkins, McGue, & Iacono, 1997) consists of 42 questions that measure the parent–child relationship. The PEQ assesses conflict (e.g., *My mother/father and I often get into arguments*), parental involvement (e.g., *My mother/father doesn't know about my hobbies*), regard for parent (e.g., *I am proud of my parent*), regard for child (e.g., and *I know my parent loves me*), and structure (e.g., *My mother/father makes it clear what he or she wants me to do or not do*). Participants were instructed to rate each statement on a four-point Likert scale ranging from *Definitely true* to *Definitely false* and rated each statement for both their mothers and fathers. The scale has good internal consistency and validity (Elkins et al., 1997). In this study, the conflict, parental involvement, regard for parent, regard for child, and structure subscales were used as indicators of perceived positive parenting.

Perceptions of Play (POP)

The POP was adapted from Fisher et al. (2008) to assess perceptions that emerging adults have of the types and amounts of play experienced during their childhood. Whereas the items on the measure developed by Fisher et al. (2008) were rated by mothers, the items were adapted so that emerging adults could rate the items as they applied to themselves. Participants were instructed to rate each statement on a six-point Likert scale ranging from *Less often/never* to *Every day/almost every day*. A factor analysis was completed on this measure given that the original measure was completed by parents of children and not as it was used in this study. Following varimax rotation, a total of six factors obtained eigenvalues greater than 1, and four of these factors obtained satisfactory internal consistency reliabilities. These four factors totaled 19 items and were labeled as sensorimotor play (e.g., *going outside to run around or use playground equipment*; $\alpha = .83$), symbolic play (e.g., *pretending to be a superhero, doctor, mom, or anyone else*; $\alpha = .81$), social play (e.g., *having play dates or getting together with other children*; $\alpha = .74$), and "edutainment," or educational entertainment (e.g., *using electronic products that say words, letters, or numbers when you touched a button, word, or picture*;

α = .75). In this study, the sensorimotor play, symbolic play, social play, and "edutainment" scales were used to indicate perceived childhood playtime.

Rosenberg Self Esteem Inventory (RSEI)

The RSEI (Rosenberg, 1965) consists of 10 questions which measure self-esteem. Participants were instructed to rate each statement (e.g., *On the whole, I feel satisfied with myself*) on a four-point Likert scale ranging from *Strongly agree* to *Strongly disagree*. Internal consistency ranges from .85 to .88, and the RSEI correlates well with other measures assessing self-esteem and correlates less positively with measures assessing anxiety and depression (Rosenberg, 1965). In this study, this scale was used to indicate reported psychopathology (i.e., self-esteem is the inverse of psychopathology).

Adult Self-Report (ASR)

The ASR (Rescorla & Achenbach, 2004) consists of 123 statements used to assess internalizing and externalizing psychopathology over the past 6 months. Problem behaviors are scored with 0 = *Not true*, 1 = *Somewhat or sometimes true*, and 2 = *Very true or often true*. The 123 problem behaviors constitute eight empirically based syndromes derived by factor analysis. Loading on Internalizing Problems scale are the Withdrawn, Somatic Complaints, and Anxious/Depressed Syndrome scales. Loading on the Externalizing Problems scale are the Rule-Breaking Behavior, Aggressive Behavior, and Intrusive Syndrome scales. Other Syndrome scales include Thought Problems and Attention Problems and do not load onto a higher-order scale. A Total Problem score can be calculated by summing the individual item scores. Internal consistency alpha ranged from .87 to .93 in past studies (Rescorla & Achenbach, 2004). In this study, the Internalizing Problems and Externalizing Problems scales were used to indicate reported psychopathology.

Procedure

Following approval by the university IRB, participants seeking credit in their psychology courses voluntarily completed the study anonymously through a university-based online system (Sona Systems). Participants read a description about the study and provided informed consent by clicking a button that indicated they had read the online consent form, were at least 18 years of age, and agreed to participate. Participants then completed the questionnaires described above in a randomized order, and read a debriefing form upon completion. Participants were instructed to complete parenting measures (PBI, PAQ, PEQ) about their father and mother separately, to complete parenting measures and the POP in regards to the first 16 years of their life, and to complete the RSEI and ASR in regards to the past 6 months. Participants were treated in accordance with the Ethical Principles

of Psychologists and Code of Conduct. Data collected are anonymous and stored on a password-protected hard drive.

RESULTS

Latent Constructs and Their Indicators

Structural equation modeling (SEM) analyses were performed using Statistica 9.1.

The latent constructs for the current study include perceived positive parenting, perceived childhood playtime, and reported psychopathology. Perceived positive parenting is indicated by the PBI (i.e., care and overprotection), the PAQ (i.e., authoritative, authoritarian, and permissive subscales), and the PEQ (i.e., conflict, involvement, regard for parent, regard for child, and structure). Perceived childhood playtime is indicated by the POP (i.e., sensorimotor, symbolic, social, and edutainment). Reported psychopathology is indicated by the RSEI and the Internalizing and Externalizing scales of the ASR. Multiple subscales are included for each indicator to ensure proper model identification.

Model Analyses

Models including perceived maternal parenting are conducted separately from models including perceived paternal parenting. Model analyses also are completed separately for male and female participants. This is done to examine differences between maternal and paternal parenting as well as between male and female emerging adults, particularly given that extant research demonstrates gender effects across parents and children (Bosco, Renk, Dinger, Epstein, & Phares, 2003; Conrade & Ho, 2001; Gryczkowski, Jordan, & Mercer, 2010; McKinney, Donnelly, & Renk, 2008; McKinney & Renk, 2008a; McKinney & Renk, 2008b; Phares, Fields, & Kamboukos, 2009; Russell & Saebel, 1997). Thus, models presented represent gender-dyadic perceived relationships (i.e., mother–daughter, mother–son, father–daughter, father–son).

For the purposes of *SEM*, a male sample size of 127 is considered fair and a female sample size of 201 is considered good (Kline, 1998). The generalized least squares to maximum likelihood (GLS-ML) method of covariance structure analysis is used. Overall model fit is examined with the squared error of approximation (RMSEA), the comparative fit index (CFI), and the parsimonious fit index (PFI). RMSEA values less than or equal to .08 and CFI values greater than or equal to .95 have been used more recently to indicate acceptable model fit (Hu & Bentler, 1999). PFI values greater than or equal to .60 signify that a model is sufficiently parsimonious (James, Mulaik, & Brett, 1982). Chi-square tests are not used to assess overall model fit because of their sensitivity to sample size and other biases (James et al., 1982). Similar to other research, a two-stage modeling approach is taken (Anderson & Gerbing, 1988; Barry & Stewart, 1997). In stage one, a measurement model that allows all latent constructs to correlate freely is developed and evaluated. In stage two, structural analysis designed to test relationships among

latent variables is conducted. Exploratory procedures are used initially to create a suitable measurement model, and confirmatory procedures then are used to test relationships among latent variables. This approach decreases the possibility that relationships among latent constructs will be misinterpreted due to poor construct measurement (Barry & Stewart, 1997).

Measurement and Structural Models

All of the original measurement models as described above fail to adequately fit the data (all RMSEA $>$ .08, all CFI $<$ .95), suggesting the need for respecification. The need to respecify is common as "initially specified measurement models almost invariably fail to provide acceptable fit" (Anderson & Gerbing, 1988, p. 412). Examination of the standardized residuals associated with each model reveal several indicators that do not relate clearly to a latent construct. As a result, these indicators are deleted from future analyses. The respecified measurement models, shown in Figure 1, adequately fit the data as indicated by the RMSEA (all $\leq$ .08), CFI (all $\geq$ .95), and PFI (all $\geq$ .60). All factor loadings exceeded .60 (all ps $<$ .0005), indicating convergent validity. Upon specifying appropriate measurement models, the hypothesized structural models are tested. Structural models adequately fit the data as indicated by the RMSEA (all $\leq$ .08), CFI (all $\geq$ .95), and PFI (all $\geq$ .60). Correlations among the latent constructs are shown in Figure 1, and model statistics for respecified measurement models and hypothesized structural models are shown in Table 1. Figure 2 displays the structural models with path coefficients.

Hypotheses Revisited

Correlations among latent factors in the measurement model shown in Figure 1 are examined to test hypotheses 1 and 2. Hypothesis 1 (i.e., perceived childhood playtime will be correlated negatively with reported psychopathology) is supported across all models. Perceived childhood playtime is associated negatively with reported psychopathology in father–son, father–daughter, mother–son, and mother–daughter dyads as perceived by emerging adults. Interestingly, the correlations in both daughter models are stronger than the correlations in both son models. Hypothesis 2 (i.e., perceived positive parenting will be correlated negatively with reported psychopathology and positively with perceived childhood playtime) is supported partially. In support of hypothesis 2, perceived positive parenting is associated negatively with reported psychopathology across all four models. Also in support of hypothesis 2, perceived positive parenting is associated positively with perceived childhood playtime in both daughter models. Failing to support hypothesis 2, perceived positive parenting is not associated significantly with perceived childhood playtime in both son models. Overall, these results suggest that increases in childhood playtime are associated with decreases in psychopathology and that this is effect is stronger for females than males. These results further suggest that positive parenting is associated with increases in childhood playtime for females only.

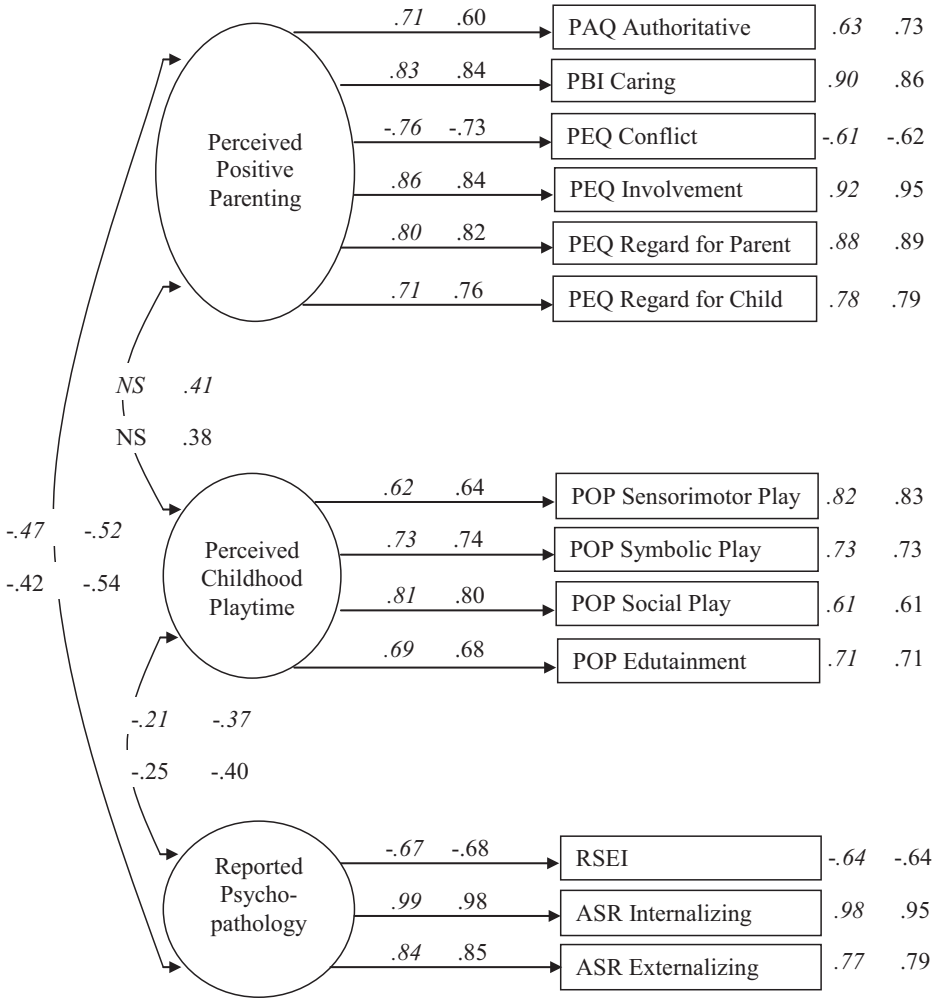

Figure 1. Respecified measurement models. Standardized factor loadings (all *p*s < .0005) appear along horizontal arrows for males and to the right of indicators for females. Correlations among latent constructs (all *p*s < .05 unless noted as NS) appear along curved arrows with values appearing to the left for males and to the right for females. Italic font represents paternal models, and normal font represents maternal models. Measurement errors are omitted for clarity.

Structural models as shown in Figure 2 are examined to test hypothesis 3. Hypothesis 3 (i.e., perceived childhood playtime will mediate the effects of perceived positive parenting on reported psychopathology) is not supported. The path coefficients between perceived positive parenting and psychopathology remain significant and are largely the same as the correlations found in the measurement model. In fact, most all of the path coefficients across the four gender-dyadic models are very similar to the correlations found in the measurement models. One exception to this is the paths between perceived childhood playtime and reported psychopathology for both daughter models. Specifically, when examined simultaneously with structural models, these paths are weaker than in the measurement

Table 1. Fit Indices For Structural Equation Modeling

	Measurement models			Structural models		
	RMSEA	CFI	PFI	RMSEA	CFI	PFI
Paternal male model	.07	.95	.66	.06	.96	.80
Maternal male model	.06	.95	.66	.05	.96	.79
Paternal female model	.07	.96	.70	.05	.97	.85
Maternal female model	.05	.97	.73	.03	.97	.88

Note. $n = 127$ for males; $n = 201$ for females.

model and become similar to the path coefficients in male models. This suggests that perceived childhood playtime is found to have a stronger effect on reported psychopathology for females compared with males when examined in isolation but that the effect is similar for males and females when examined simultaneously in the context of perceived parenting with structural models.

DISCUSSION

This study examines the relationships among paternal and maternal perceived parenting, perceived childhood playtime, and emerging adults' reported psychopathology. Consistent with previous research, results suggest that maternal and paternal perceived positive parenting characteristics are associated with more positive psychological adjustment in emerging adult males and females. Adding novel information to the extant research, results suggest that maternal and paternal perceived parenting characteristics are related to the amount of playtime engaged in during childhood for females but not for males. This finding supports the research described above emphasizing the importance of examining gender-dyadic

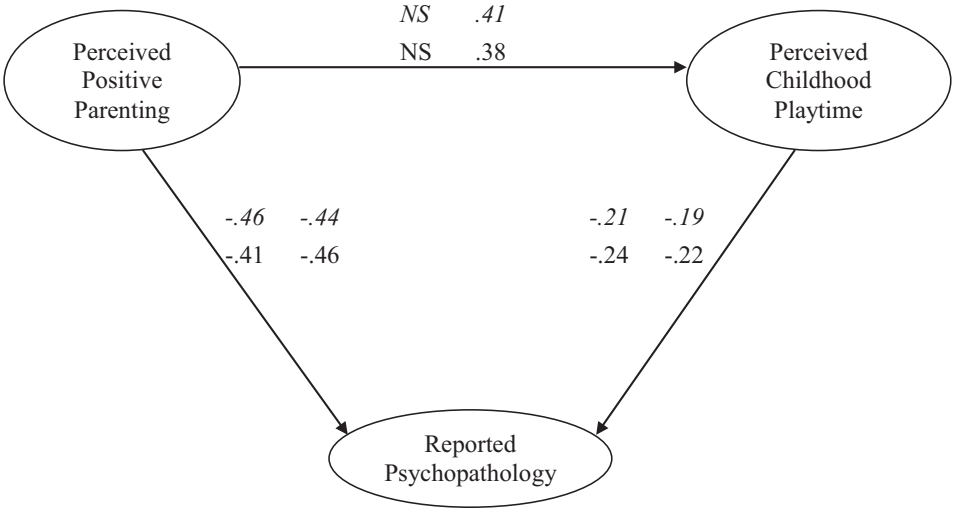

Figure 2. Fitted structural models. Standardized parameter estimates (all $ps < .05$ unless noted as NS) appear to the left for males and to the right for females. Italic font represents paternal models, and normal font represents maternal models. Error effects are omitted for clarity.

effects. Also adding to the extant research, results suggest that higher amounts of perceived childhood playtime are associated with more positive psychological adjustment in emerging adults. This finding is consistent with findings related to cognitive development (e.g., Winerman, 2009) and suggests that childhood playtime may impact a range of outcomes extending at least into emerging adulthood.

Implications

Research Implications

The results presented in this study hold practical implications for researchers and individuals interacting with children. Researchers are urged to examine parenting and other variables related to child adjustment in the context of gender. Given the differences among the gender dyads noted above, this study lends further evidence that the relationships among various parenting characteristics and emerging adult adjustment need to be examined in the context of the gender of both parents and their emerging adults. Although many similarities exist across gender-dyadic models, important differences also exist. Thus, examining parenting as a global variable may not best explain the intricacies of parenting that occur in gender dyads. Also, perceived parenting is at least one variable that may lead to increases in perceived childhood playtime for females, but this study did not identify any variables that may lead to increases in perceived childhood playtime in males. Thus, researchers are encouraged to examine additional variables that may be associated with increases in childhood playtime for both genders, particularly given that higher amounts of perceived childhood playtime are associated with more positive functioning. Future research also should replicate the current study with younger samples. Examining how playtime influences both children and adolescents cross-sectionally and longitudinally will help provide more information about the importance of playtime.

General Practice Implications

Individuals interacting with children (e.g., mental health professionals, parents, teachers, etc.) also may find the results of this study to be informative. Given past research suggesting associations between positive parenting practices and child adjustment (e.g., Baumrind, 1991; McKinney & Renk, 2008b; Paulussen-Hoogeboom et al., 2008) and the positive effect of parent management training (Kazdin, 2007), working with parents to increase effective parenting practices (e.g., encourage warmth and demandingness, develop strategies to resolve conflict) may potentially lead to positive effects on psychological adjustment. Additionally, individuals interacting with children should understand the potentially subtle differences between how fathers and mothers may parent their sons and daughters and that childhood experiences may continue to influence emerging adult development.

Encouraging children to play is another potential way to improve outcomes for children. Public service announcements and TV advertising should emphasize the

importance of play. In an example of this, the National Football League has developed and advertises the "NFL Play 60" program, which encourages adults and children to spend 60 minutes per day in physical play. Pediatricians and other professionals also could emphasize the importance of play and develop and/or support workshops that help parents how to play with their children. Parent management training programs, one of the most effective treatments for children with behavioral disorders (Kazdin, 2007), nearly universally encourage parents to spend more quality time playing with children. Incorporating such a positive practice before problems develop should be a priority.

Implications for Play Therapists

The results of the current study may be particularly relevant to play therapists and other individuals who use parent–child play therapies in their research and practice. An abundance of research suggests that play therapy that involves parents as well as child-directed play is beneficial for caregivers and children across a variety of situations for a variety of outcomes (McGuire & McGuire, 2001; Shaw & Magnuson, 2006; Webster-Stratton & Reid, 2010). For example, Child Parent Psychotherapy, one type of parent–child play therapy, has been shown to increase feelings of safety and healthy development in children traumatized by domestic violence (Diaz & Lieberman, 2010). Further, Child Parent Relationship Therapy has been shown to improve functioning across ethnicities. Specifically, research has demonstrated that this therapy improves the academic performance of Latino children who are at risk for poor achievement in addition to decreasing parental stress, which is associated with a plethora of negative impacts on children's mental health (Ceballos, 2010). Additionally, Child Parent Relationship Therapy reduces parent–child relationship stress and child behavior problems for low-income African American families (Sheely-Moore, 2010). Finally, one of the most supported evidence-based treatments for children, Parent–Child Interaction Therapy, emphasizes the importance of child-directed play where parents use play therapy skills as a primary mechanism for improving the well-being of their children (Callahan, Stevens, & Eyberg, 2010).

Perhaps most relevant to the current study, Filial Therapy may be a particularly promising method of promoting play and positive parent–child relationships (Glazer, 2008). Filial Therapy is a client-centered play therapy where the parent is thought to have more emotional significance to the child and thus is a more effective "therapist" (Glazer, 2008). The parent and child learn and grow together through playtime where the parent is able to help develop the child's skills through effective parenting practices. As suggested above, parent management training programs appear consistent with the goals of Filial Therapy in that they both promote positive parenting practices and quality time between the parent and child. Practices suggested by these treatments include expressing empathy (e.g., where the parent understands the child's feelings when frustrated or in helping the child express him/herself or understand another's feelings), attending to the positive (e.g., praising effort and good behavior), and setting and enforcing clear and appropriate limits (e.g., withdrawing attention or enacting time-out/response cost in response to negative behavior).

Overall, the extant literature, some of which is described above, supports the importance of play during childhood, whether it is in the context of therapy or normal development, as well as the importance of parental involvement in childhood play. The current study is in agreement with research supporting the importance of childhood playtime (i.e., increases in perceived childhood playtime is associated with decreases in reported psychopathology in the current study) and with research supporting the importance of involving parents in play therapy (i.e., increases in perceived positive parenting is associated with increases in perceived childhood playtime in females).

Although play therapists may be able to provide their clients with play to improve their functioning, they may be less able to involve parents of their clients in the play therapy process. For example, involving parents in their child's play therapy may be particularly challenging as parents frequently have busy schedules, may lack commitment to therapy, and/or may have other problems that cause them stress (Shaw & Magnuson, 2006). In addition to limiting a parent's involvement in play therapy specifically, parental stress may limit a parent's ability to accomplish an important goal of effective play therapies, which is providing appropriate play to their children outside of therapy. In fact, several parent–child play therapies recognize parental stress as a barrier and aim to reduce it. Shaw and Magnuson (2006) describe a short-term, behavioral, solution-focused model of parent consulting to increase parental involvement when parents face barriers to participating in play therapy with their child.

In addition to the barriers parents face in becoming involved in play therapy with their child, play therapists may face their own barriers to involving parents in the play therapy process. For example, because the importance of involving parents in play therapy may not be emphasized in many training programs, play therapists may lack knowledge about how to effectively involve parents (McGuire & McGuire, 2001). McGuire and McGuire (2001) provide a pragmatic guide to assist with involving parents in the process of play therapy.

Limitations

The findings of this study must be viewed in the context of its limitations. One limitation may be the generalizability of the findings. The sample consisted of traditional-aged college students who were predominately Caucasian and African American. Additionally, very few participants reported backgrounds of low socioeconomic status and all participants reported a traditional two-parent household. As a result, it is recommended that future studies explore various ethnic, family, and socioeconomic backgrounds under more rigorous methodological conditions. For example, parents and children from different ethnicities, family backgrounds, and social backgrounds may have varying opportunities to engage in play or may engage in varying qualities of play. Also, future research could collect data from both children and parents, assess their perceptions or observe them in interactions, and collect longitudinal data.

Another limitation of this study was that it relied solely on the self-report of emerging adult participants. What emerging adults experience and recall may differ

from what mothers and fathers experience and recall, all of which may differ from what actually transpired. Further, this study relied on retrospective report of perceived parenting and childhood playtime. Finley, Mira, and Schwartz (2008) note that although retrospective reports may be subject to recall bias, it is a valid method for gathering information about parenting practices from emerging adults and is related to their outcomes. They even argue that emerging adult retrospective perceptions may be more accurate than a child's perceptions as the emerging adult is "freer to speak their minds than are children . . . [because they] are no longer constrained by their parents' control" (p. 65).

Another limitation of this study was its design. Correlational in nature, this study is unable to determine causation. Finally, many other factors not studied here may influence emerging adult outcomes as well. For example, some other factor could influence both parenting and playtime in relation to adjustment. Having a positive parent–child relationship may be the result of more global environmental factors (e.g., socioeconomic status) and could lead to both positive parenting and increases in playtime. Also, the current study does not differentiate between the quality of play within particular gender dyads (e.g., father–son dyads spending more time in sports compared with mother–daughter dyads). Future research is urged to investigate other possible factors and how play may differ within gender-dyads.

Conclusion

Extant research shows that childhood playtime is essential for children's cognitive development, and the current study demonstrates that perceived childhood playtime is associated with psychological adjustment in emerging adulthood. However, some current scholastic models encourage replacing playtime with structured learning. In addition to the negative, paradoxical effects that replacing playtime with structured learning may have on cognitive development as suggested by Winerman (2009), decreasing childhood playtime also may negatively impact psychological adjustment. To avoid these potential pitfalls, Mallory and New (1994) contend that educational systems should move from individualistic models of learning and development in the classroom to socialistic models of learning and development. Mallory and New (1994) further suggest that socialistic models of learning and development may harbor more meaningful and relevant learning that takes advantage of how children learn best. Finally and most importantly, it is surprising that the recent culture is doing away with playtime in lieu of more time spent in academics given the abundance of positive effects of play that are repeatedly found by research.

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Received April 13, 2011
Revision received December 19, 2011
Accepted May 17, 2012 ■