

I think I can't, I think I can't: associations between parental pessimism, child affect and children's well-being

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The present study was designed to examine the relations between parental pessimism and peer relations and health in preschool children and to examine the role that child positive and negative affect played within this relationship. Thirty-seven mothers and their children (mean age = 48.1 months) volunteered from local preschools and daycares within a mid-sized Atlantic Canadian city. Mothers completed the Generalized Expectancy for Success Scale—Revised, as well as the Positive and Negative Affect Schedule and a brief demographic questionnaire. Teachers completed the Preschool Play Behaviour Scale. Results revealed significant correlations between parental pessimism and child affectivity and social play, and between child affectivity and various types of play behavior. Significant interactions were also found between parental pessimism and child affectivity in the prediction of social play behavior. Results are discussed in terms of the importance of parental attitudes to a child's social and physical well-being.

Keywords: Positive and negative affect; Pessimism; Peer play; Well-being

Introduction

Previous researchers have reported that broad-based emotions within a family or stemming from a parent can influence many areas of a child's life (Berndt, 2002). These areas may include a child's advancement in the early years of school (Turner, 1982), their opinion of themselves (Turner & Harris, 1984), their health (Scheier & Carver, 1992) and their interactions with peers (Peery *et al.*, 1985). Although many emotions or attitudes displayed by a parent have the potential to influence different

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aspects of a child's life, negative emotions and attitudes, such as depression and pessimism, seem to specifically encourage negative reactions and outcomes in children (Turner, 1982).

Although several studies have been conducted to examine individual types of parental attitudes or emotions and their impact on children (for example, Malmquist, 1971; Turner, 1982; Zahn-Waxler *et al.*, 1984; Hasan & Power, 2002), few studies have focused on how negative attitudes towards life, such as parental pessimism, can impact the physical and social well-being of children. Furthermore, the influence of child affectivity within this relationship has not been explored. As such, the objective of this study was to determine whether parental pessimism and child affectivity impact preschool children's physical health and peer relations (as a measure of social well-being).

Pessimism

Fischer and Leitenburg (1986) have defined pessimism as '[people's] ... negative predictions about their personal future' (p. 241). The importance of positive thinking in relation to the future, on physical as well as psychological well-being, is well documented (Scheier & Carver, 1992; Scheier *et al.*, 2002). In addition to results indicating that pessimism has a negative impact on coping strategies (Scheier & Carver, 1992), self-esteem and perceptions of self-worth (Melges *et al.*, 1971), pessimism has also been found to positively correlate with other negative emotions such as hopelessness and depression (Dixon *et al.*, 1993). Furthermore, Hasan and Power (2002) found that maternal pessimism is positively correlated with child pessimism.

By contrast, optimistic people have been found to consistently express positive attributions and opinions about upcoming events within their lives (Scheier & Carver, 1992; Hasan & Power, 2002). Furthermore, optimistic people tend to adjust well to new situations and life transitions, enabling them to cope with stressful life events better than pessimistic people (Jackson *et al.*, 2002). Overall, optimism is associated with positive psychological and physical outcomes as well as a higher quality of life than pessimism (Chang, 2002). As such, there is reason to speculate that peer relations may be associated with pessimism.

Peer relations

The importance of positive and healthy peer relations throughout development has been well documented (Parker & Asher, 1987; Carson & Parke, 1996). In the preschool years especially, gaining social competence is thought to be a very important developmental task (Cicchetti, 1990). Preschool social behavior often predicts children's behavior as they continue throughout school (Ladd *et al.*, 1988; Eisenburg *et al.*, 2001; Deiner & Kim, 2004) and, as such, children who do not obtain important social competencies within preschool are more likely to have difficulty obtaining and maintaining positive peer relationships throughout their lives (Johnson *et al.*, 2000).

Social competence has also been found to influence various other aspects of development (Berndt, 2002). For example, through interactions with peers, children not

only learn social roles but also turn-taking, cooperative behavior, the concept of sharing and the ability to take on others' perspectives (Fantuzzo *et al.*, 1995). Taking on others' perspectives permits children to move past egocentric thought, a process that provides a base from which a child can develop problem and conflict solving skills (Guralnick, 1993; Rose-Krasnor, 1997). In addition, social competence is related to cognitive competence (Parker & Asher, 1987). Children who fail to form successful, positive peer relationships early in childhood are at an increased risk for failure in school (Parker & Asher, 1987). Berndt (2002) determined that negative peer interactions may encourage a child to withdraw from social and school situations.

From the results of longitudinal research, DeRosier *et al.* (1994) found that negative peer relations in early childhood are harmful in later developmental stages. These consequences may include the inability to adjust to new situations or psychosocial problems (Kupersmidt *et al.*, 1995), and may manifest in emotionally dysfunctional and delinquent behavior (DeRosier *et al.*, 1994; Kupersmidt *et al.*, 1995). One important and informative approach to conceptualizing peer relations is through peer play.

Peer play as a measure of peer relations

Peer play has been used extensively as a measure of the quality of peer relations in young children (for example, Sarafino, 1985; Ladd *et al.*, 1988; Pellegrini, 1988; Brown *et al.*, 1996). In addition to the difficulty young children may have in expressing the content of their peer interactions, the majority of child peer relations, in early childhood especially, are based upon solitary, parallel or interactive play (Sarafino, 1985). As such, peer play is an appropriate method to assess the quality of peer relations in preschool children. For the purpose of this research, social as well as non-social play has been used to assess peer relations. The examination of social play as defined by Coplan and Rubin (1998) includes the following: (1) social play, which includes group play, dramatic play and conversations with peers; and (2) rough play, which refers to rough and tumble play with peers (e.g. mock fighting). The examination of non-social play (Coplan & Rubin, 1998), on the other hand, includes: (1) reticent behavior, which encompasses on-looking behaviors in which the child in question has no direct interaction with the children that he/she is watching; (2) solitary passive behavior, in which the child is engaged in solitary, but productive play—play that is working towards completing a goal (e.g. inspecting the workings of a toy or completing a puzzle); and (3) solitary active behavior, in which the child is actively playing with himself/herself apart from other children (e.g. pretending to be a superhero; Coplan & Rubin, 1998).

Furthermore, teachers are a great asset in accounting for the frequency of peer play behavior (Milfort & Greenfield, 2002). Teachers often possess the opportunity to observe children and their peer play behaviors for an extended period of time. As such, teachers are usually familiar with individual children and their typical peer play behaviors and social skills (Milfort & Greenfield, 2002). While play is an extremely important measure of a child's social well-being, yet another important area of child well-being is physical health.

Health

Health may comprise physical, mental, emotional, spiritual and social aspects of life (Roden, 2003). The health of children, particularly young children, is one of the primary responsibilities of parents (Gable & Lutz, 2000; Roden, 2003) for both health protection (e.g. safety practices; Harris & Guten, 1979) and illness prevention (e.g. diet, exercise; Roden, 2003). For example, extreme over or under control of a child's intake of food has been reported to be negatively correlated with a child's ability to regulate energy intake (Roden, 2003).

It is important to note that social and psychological health is often forgotten as they represent a more complicated network of overall health. Nevertheless, there is great importance in providing children with the necessary tools to lead a healthy lifestyle in all respects (Roden, 2003). These tools may include: the ability to learn through experience and example, the ability to make good decisions, communication skills and coping strategies (Roden, 2003). While there is substantial knowledge regarding the overall dimensions of peer relations and health influences in childhood, there is little known about how these constructs link to parental pessimism.

Parental pessimism, peer relations and health

Certain parental characteristics have been shown to be important factors in child social behavior (Deiner & Kim, 2004). Specifically, negative attitudes and emotions, such as pessimism and depression, are negatively associated with children's ability to internalize and externalize behavior (Shaw *et al.*, 1997). For example, young children of manic-depressive parents are more likely to have difficulty in not only maintaining friendships, but also in controlling hostility towards their peers (Zahn-Waxler *et al.*, 1984).

Peery *et al.* (1985) also found that parent-child relationships characterized by the expression of positive attitudes towards parenting may provide children with a solid framework from which to form positive peer interactions, a necessary characteristic of peer acceptance. Isolated children tend to have mothers who have negative attitudes about their parental role (Peery *et al.*, 1985). As such, it is logical to conclude that parental pessimism may influence the peer relations of children.

In addition to the evidence suggesting that pessimism may have negative consequences on psychological health, it is also associated with the quality of one's physical health (Scheier & Carver, 1992). Several studies have established that optimistic appraisals of upcoming events and life can positively influence not only the ability to effectively cope with difficult life experiences, but also the susceptibility to possible illness (Scheier & Carver, 1992) and the rate of recovery following illness (Scheier *et al.*, 1989). Furthermore, one of the most prevalent associations between attitudes and health is the finding that optimists tend to practice healthier living habits such as proper diet and exercise (Scheier & Carver, 1992), factors that are known to be critical in overall health.

In the study by Scheier and Carver (1992), the relationship between optimism and pessimism and students' reactions to physical symptoms of illness over time was examined. It was found that optimistic students were less bothered by the emergence of physical symptoms over the designated time period than pessimistic students. Furthermore, Scheier *et al.* (1989) noted that when following up on open bypass surgery patients, optimism was significantly correlated with the rate of recovery. Those patients classified as optimistic met recovery goals at a faster rate, claimed to be feeling more rested following sleep and were less likely to report sleep disturbances during the night than pessimistic patients (Scheier *et al.*, 1989). Although the links between parental pessimism and children's peer relations and health have been moderately described in the literature, there exists no published research on possible 'third' variables that may influence this relationship. In the next section, child affect is considered as a possible moderator.

Positive and negative affect

Both positive and negative affect have been shown to be important aspects of well-being throughout life (Clark & Watson, 1988; Consedine *et al.*, 2004). Positive affect is often associated with excitement and enthusiasm surrounding everyday activities (Clark & Watson, 1988), and can vary greatly across a variety of situations (Stone & Neal, 1984). Negative affect, on the other hand, is associated with unpleasant interpretations and nervousness concerning everyday life (Clark & Watson, 1988), and remains relatively constant in the absence of adverse and stressful life events (Stone & Neal, 1984). Furthermore, it is also important to note that states of mood, such as positive and negative affect, can influence one's perceptions of situations (Forgas *et al.*, 1984). Regardless of whether a particular situation presents a detriment to an individual's well-being, a negative perception of the situation may inhibit one from engaging in the same or similar situations in the future.

Peer relations may also be influenced by the affectivity of the child (Deiner & Kim, 2004). In a study by Eisenberg *et al.* (1993), negative affect in preschool children was found to be negatively correlated with social skills. The ability to self-regulate has also been shown to be especially important for children high in negative affect (Diener & Kim, 2004). Furthermore, pessimism has been found to influence the frequency of externalizing behavior and the ability to self-regulate, factors that may influence the quality of the peer relations (Shaw *et al.*, 1997). As such, children who possess high levels of negative affect and are exposed to high levels of pessimism may be less likely to be able to self-regulate appropriately and may have an increased risk for developmental social problems throughout childhood.

Although health research often focuses on negative affect and its impact on well-being, positive affect has been shown to correlate with health (Consedine *et al.*, 2004). For example, there is evidence to suggest that children high in positive affect may have a greater ability to cope with life stressors (Meade *et al.*, 2001), a factor that can influence both peer relations and physical health. DeRosier *et al.* (1994) found that the level of adjustment in new situations interacted with peer rejection. In

addition, the presence of high levels of stress, associated with decreased coping ability, may inhibit the strength of one's immune system, and as such, decrease the body's defense against illness (Kern *et al.*, 1996).

Parenting, affect and well-being

Associations between parenting practices and styles and child characteristics are often considered when examining environmental influences on children's social competence (Paterson & Sanson, 1999). Goodness of fit between children and their environment (including parents) enables children to adjust according to environmental changes and ultimately to cope with life stressors more effectively (Paterson & Sanson, 1999). However, when the environment (e.g. parenting practice) and a characteristic of the child (e.g. affect) do not 'fit', problems may arise in not only the child's coping ability, but also in their behavioral adjustment and ability to interact appropriately within social situations. For example, if a child is shy and a parent attempts to alter this characteristic by exhibiting an authoritarian parenting practice (e.g. asserting power), the child may find difficulty in adjustment that could manifest in aggressive responses to social situations (Paterson & Sanson, 1999).

As discussed previously, parenting practices may also influence the healthy or unhealthy lifestyle of a child (Roden, 2003). A diminished ability to adjust to environmental demands, for example, may impact a child's coping ability. In turn, the inability to cope may impact the strength of the body, diminishing its defense against illness (Kern *et al.*, 1996). Therefore, it is logical to suggest that parental attitudes, such as pessimism, in conjunction with child characteristics, such as affectivity, can influence aspects of peer relations and health.

The present study

The underlying purpose of this study was to examine the influence of parental pessimism on the peer relations and health of preschool children and to investigate the role of children's positive and negative affect in this association. Given what is known about the aforementioned variables and their relations, several possible outcomes are expected; however, these hypotheses are exploratory in nature. (1) Children high in negative affect, who have parents high in pessimism, will be more likely to exhibit indices of poor social relations and illness within the previous six months. (2) Children high in positive affect, who have parents low in pessimism, will be less likely to experience poor social relations and illness within the previous six months. In addition, the level of positive affectivity within the child may serve as a protective barrier against parental pessimism. For example, one possible outcome may be that children high in positive affect, who have parents high in pessimism, will experience fewer negative peer relations and incidences of illness within the previous six months than those children who are high in negative affect, who have highly pessimistic parents.

Method

Participants

Thirty-seven mothers and their children¹ (17 male and 20 female) aged two to six years (range, 30–75 months; mean = 48.1 months, standard deviation = 10.3 months) were recruited from local preschools and daycares within a mid-sized Atlantic Canadian city. Both fathers and mothers were encouraged to participate; however, parents had to be a custodial parent currently living in the same household as the child. In addition, only two fathers volunteered to participate and, as such, their data were excluded from analyses. The majority of mothers had completed post-secondary education at the Bachelor's level (50%). Approximately 29.4% had completed graduate school and 20.6% had completed some post-secondary education. In addition, most participants were married (64.9%), followed by single or separated (13.5% each) and common law and divorced (5.4% and 2.7%, respectively). In addition, approximately 52.9% of child participants did not have siblings, 32.4% had one sibling and 17.7% had two siblings. Several teachers within the daycares and preschools, those who were most familiar with the children participating, were also required to participate by completing a questionnaire that measured the social and non-social play of the children.

Procedure

Daycares and preschools were selected from various areas of a mid-sized Atlantic Canadian city to ensure that participants came from a range of socioeconomic backgrounds. An initial letter was sent to the administrators of the daycares and preschools to ensure their consent in recruiting participants (i.e. teachers, parents and children) from their centers. Upon gaining permission from daycare and preschool directors, a letter was distributed to all parents of children attending the centers. Agreement to participate by administrators of the preschools and daycares was taken as consent for teacher participation within this study.

Parents completed the Generalized Expectancy for Success Scale—Revised (Hale *et al.*, 1992) as well as the Positive and Negative Affect Schedule (PANAS; Watson *et al.*, 1988) on behalf of their children. In addition, parents also completed a brief demographic questionnaire outlining their marital status, their level of education, the child's age, sex, number of siblings and how many times the child had had a cold or flu within the previous six months. This question was used as the measure of health within this study. Teachers were instructed to complete the Preschool Play Behavior Scale (PPBS; Coplan & Rubin, 1998) regarding their students' play behavior.

Measures

Parental pessimism. Parental pessimism was measured using the Generalized Expectancy for Success Scale—Revised (Hale *et al.*, 1992). This scale is composed of 35 items with the same opening phrase ('In the future I expect that I will ...').

Participants were required to respond to a different ending on each item, each of which represent a belief of success or failure within the future, on a five-point Likert scale (range: 1 = highly improbable to 5 = highly probable). It is important to note that this scale is also counterintuitive in nature and, as such, higher scores on this scale indicate lower levels of parental pessimism. Both the original version and the revised version of the Generalized Expectancy for Success Scale have demonstrated adequate test-retest reliability as well as high internal consistency (Hale *et al.*, 1992).

Positive and negative affect. The PANAS (Watson *et al.*, 1988) is a 20-item, self-report measure of positive and negative affect. However, because the children recruited for this study were too young to complete this questionnaire on their own, parents were instructed to complete the PANAS on behalf of their child. Parents have previously assessed their children's positive and negative affect using the PANAS (for example, Lagacé-Séguin & Coplan, 2001). Ten of the items on the PANAS represent positive affect (e.g. interested, excited and strong) and the other 10 items represent negative affect (e.g. distressed, upset, irritable). Parents rated the extent to which they thought the child would have felt each item (range: 1 = very little to 5 = extremely) in the past six months. The PANAS has been shown to be a reliable and valid measure of positive and negative affect for various populations (Watson *et al.*, 1988).

Peer relations. The PPBS (Coplan & Rubin, 1998) is an 18-item evaluation of children's social and non-social behaviors during peer play. This scale required teachers to specify the rate of social play exhibited by a child based on five play factors. The five factors are as follows: (1) social play, which refers to group play, dramatic play and conversations with peers; (2) reticent behavior, which refers to a child engaging in on-looking behaviors, but not directly interacting with the children he/she is watching; (3) solitary passive play behavior, which deals with constructive solitary play, or play that has a goal, and exploratory behaviors (e.g. completing a puzzle); (4) solitary-active behavior, which refers to play that is carried out apart from peers and does not have a constructive purpose (e.g. banging blocks together); and (5) rough play, which refers to rough housing or rough and tumble play (e.g. mock fighting; Coplan & Rubin, 1998). The PPBS has been shown to be a reliable and valid measure of young children's play behaviors (Coplan & Rubin, 1998).

Results

Preliminary analyses

Independent sample *t*-tests were conducted to examine differences between children's sex and parental pessimism, child positive and negative affect (as scored by parents and teachers), health and the five types of play measured using the PPBS: social play, solitary-active play, reticent play, rough play and solitary-passive play. A significant difference between boys and girls was found for rough play ($t(30) = 3.92$,

$p < 0.001$). Boys engaged in significantly more rough play behaviors (mean = 3.35, standard deviation = 1.14) than did girls (mean = 2.03, standard deviation = 0.85).

Correlation analyses

Parental pessimism, child affectivity and play. A significant, positive correlation was found between parental pessimism and parental ratings of children's positive affect ($r = 0.32, p < 0.05$) (recall, higher pessimism scores relate to lower levels of pessimism). A significant positive correlation was found between parental pessimism and children's social play ($r = 0.37, p < 0.05$).

Parental ratings of child affectivity, types of play and health. Significant, negative correlations were found between parental ratings of child positive affect and solitary-passive play behavior ($r = -0.35, p < 0.05$) and between parental ratings of child positive affect and solitary-active play behavior ($r = -0.33, p < 0.05$). A significant negative correlation was found between parental ratings of negative affect and health ($r = -0.33, p < 0.05$).

Regression analyses

Multiple regression analyses were used to explore the interactions between parental pessimism, child positive and negative affect, peer relations and health. Standardized interaction terms were created by combining parental pessimism with children's positive and negative affect. Once the interaction terms were created they were re-standardized. The interactions were tested in the prediction of the five play behaviors (social play, solitary-passive play, solitary-active play, rough play and reticent behavior) and health. In total, 12 interactions were tested.

In order to assess the moderating effects, specific blocks of variables were entered into the hierarchical regression analyses. The first block included the main effects for parental pessimism and children's positive and negative affect (as rated by both parents and teachers) on child play behaviors. The second block included the interaction term, the combination of parental pessimism and children's positive and negative affect to predict child play behaviors. Follow-up analyses were completed on those interactions that were found to be significant.

Social play

Parental ratings of child positive affect. A significant interaction was found between parental pessimism and parental ratings of child positive affect in the prediction of child social play behavior ($R^2_{\text{change}} = 0.083, F(1,33) = 3.59, p < 0.05$). Follow-up analyses were used to explore this interaction. More specifically, separate regression analyses were conducted for children high in positive affect and children low in positive affect. Results indicated that lower levels of parental pessimism was associated

with more social play behavior in children who were rated low in positive affect by parents ($\beta = 0.45$, $t = 1.96$, $p < 0.05$) than children who were rated high in positive affect by parents ($\beta = 0.21$, $t = 0.95$, not significant).

Discussion

The purpose of this study was to examine the influence of parental pessimism on the peer relations and health of preschool children and to investigate the role that child positive and negative affect plays in this complex relationship. Independent-sample t -tests revealed significant differences in the amount of rough play behavior exhibited by boys and girls; boys engaged in significantly more rough play behaviors than girls. This finding is consistent with previous studies that have examined play differences as a function of individual difference variables such as gender (Humphreys & Smith, 1987; Pellegrini, 1988).

Gender differences in rough play behavior are thought to be influenced by either hormonal or cultural factors (Humphreys & Smith, 1984). More specifically, because of the association between male hormones, mainly testosterone and aggression, male children are thought to be predisposed to exhibit more physically-oriented play behavior (Humphreys & Smith, 1987). Although several studies examining the impact of male hormones on non-human species have supported this theory, it is difficult to confirm the impact of prenatal male hormones on human fetuses due to ethical as well as methodological considerations (Pellegrini, 1987).

Some theorists have also suggested that gender differences in types of play, specifically rough play, are influenced by the socialization that occurs around the child (Humphreys & Smith, 1984). Previous studies have reported that parents socialize male and female children differently (for example, Lamb, 1977). As such, this theory posits that boys engage in more rough play behavior because it is what is expected of them from parents and other adults. Parents, on the other hand, do not reinforce such behaviors in girls because it is not considered appropriate (Smith & Daghli, 1977).

Correlations between parental pessimism, child affect and well-being

Parental pessimism and child affectivity. Once again, it is important to note that the Generalized Expectancy for Success Scale—Revised is counterintuitive in nature. As such, a high score on this scale denotes a low level of pessimism. A significant positive correlation was found between parental scores on the Generalized Expectancy for Success Scale and parent ratings of child positive affect, indicating that there is an association between low levels of parental pessimism and positive affect in children.

Past research has indicated that parental attitudes can manifest themselves within child perceptions (Brewin *et al.*, 1996). For example, parental pessimism has been shown to be positively associated with child pessimism (Hasan & Power, 2002). In addition, positive interactions between parents and children have been shown to influence children's positive mood (Kochanska, 2002). Pessimistic attitudes may interfere with these positive interactions (Peery *et al.*, 1985).

Parental pessimism may have also interfered with parent ratings of child affectivity. For example, Whiffen (1990) found that mothers diagnosed with postpartum depression were more likely to report their child as being temperamentally difficult than those mothers not diagnosed with postpartum depression. In addition, depressed parents have been found to be more likely to rate their children as being more vulnerable to developmental problems (i.e. emotional, physical or psychological; Bendell *et al.*, 1994). As such, it stands to reason that pessimism may have interfered with parent perceptions of child positive and negative affect.

Parental pessimism and types of play. Results indicated a significant positive correlation between parental pessimism and social play. Social play, as defined by the PPBS, refers to group play, dramatic play and/or conversations with peers (Coplan & Rubin, 1998). Consistent with previous research, this result suggests that parents who exhibit relatively low levels of pessimism may positively influence their child's ability to interact socially with peers.

Previous studies have found that positive parent-child relationships can provide a basis from which children can interact positively with their peers; they may extend appropriate and positive interactions with parents to their interactions with peers (Peery *et al.*, 1985). Similarly, Shaw *et al.* (1997) found that negative attitudes and emotions (e.g. pessimism or depression) are negatively correlated with children's ability to internalize and externalize appropriate behaviors. Furthermore, children exposed to higher levels of negative attitude (e.g. depression) possess greater difficulty maintaining friendships and controlling hostility towards their peers than children who are not exposed to high levels of negative attitude, factors that may greatly influence peer acceptance (Zhan-Waxler *et al.*, 1984).

Although not examined within the present study, confidence may also be associated with types of play. Studies have shown that important figures in one's life can influence the type of perceptions one forms about the self (for example, Markus & Cross, 1990, as cited in Brewin *et al.*, 1996). For children, these important figures are often parents or adults with whom they have formed a close relationship. According to Brewin *et al.* (1996), the influence of adults on cognitions about the self can be direct or indirect; children may directly take on the self-cognitions possessed by the parents/adults or they may develop their own cognitions as a result of praise and reinforcement. Naturally, parents who express less pessimistic appraisals of themselves and the world may be more likely to pass on or reinforce these less pessimistic appraisals within their children. Optimistic appraisals of oneself and the world have also been found to be related to one's level of self-efficacy (Bandura, 1977). Perhaps the children with parents who scored high on the Generalized Expectancy for Success Scale (indicating a low level of pessimism), have an increased level of self-efficacy, and as such, participate more in peer interactions.

The relationship between negative self-cognitions and peer play is also emphasized in present-day Adlerian play therapy (Kottman & Warlick, 1989). Adlerian play therapy is designed to enable children to understand instances in which they engage in

self-defeating behavior and cognitions and to provide children with an alternative to this type of behavior and thought process (Kottman & Warlick, 1989). This therapy is accomplished through building friendships with 'play therapists', adults who can interact with children in a play setting on a regular basis (Kottman & Warlick, 1989).

Child affect and types of play. Several significant correlations between affectivity and various types of play were revealed. Significant negative correlations were found between parental ratings of child positive affect and solitary-passive play behavior and between parental rating of child positive affect and solitary active play behavior. Solitary-passive play refers to solitary play in which the child is working towards a constructive goal (e.g. putting a puzzle together), and solitary active play behavior refers to any non-constructive play carried out apart from peers (Coplan & Rubin, 1998).

These findings are consistent with the original hypothesis as they suggest that child positive and negative affect may influence the types of child play; high levels of positive affect are associated with lower levels of solitary-type play and high levels of negative affect are associated with higher levels of non-social play behavior. Children high in positive affect may be more likely to engage in less solitary play and may be less likely to play alone.

One possible explanation may stem from the children's general social skill ability. For example, Eisenberg *et al.* (1993) found that negative affect was negatively correlated with social skills, indicating that children high in negative affect may find difficulty in assessing various social situations and, as such, may fail to interact appropriately with their peers. In addition, positive affect is also positively associated with one's ability to cope with new and stressful situations (Meade *et al.*, 2001); the ability to cope may enable children high in positive affect to interact with peers easier than children who are lower in positive affect or high in negative affect. DeRosier *et al.* (1994) found that the level of adjustment to new situations interacted with peer rejection.

Affectivity and health. A significant negative correlation was found between parental ratings of child negative affect and the child's incidence of illness within the previous six months. This result suggests that increased negative affect is associated with better health. This finding is inconsistent with the original hypothesis and with previous research. In fact, previous studies have demonstrated associations between positive affect and health (Consedine *et al.*, 2004). Zautra *et al.* (2005) explored the role of positive affect as a resilience factor among women diagnosed with chronic pain. Results indicated that positive affect was negatively correlated with the level of pain the women experienced (Zautra *et al.*, 2005). In addition, as mentioned earlier, children high in positive affect tend to possess a greater ability to cope with life stressors, reducing the strain on the immune system, and thereby influencing the child's susceptibility to illness (Kern *et al.*, 1996).

There may be several reasons for this counterintuitive finding. As mentioned earlier, parental attitudes can interfere with their ability to reliably depict child characteristics

such as temperament (Whiffen, 1990) as well as other aspects of their children's lives such as developmental vulnerability (Bendell *et al.*, 1994). As such, it is possible that the level of parental pessimism may have influenced parent ratings of child negative affect.

Secondly, it is possible that an extraneous third variable influenced this relationship. As only two fathers agreed to participate in this study, their data were excluded from analysis. Perhaps additional affect scores as rated by fathers would have yielded different results. In addition, the demographic question that addressed the incidence of illness asked for the number of times the child had had a cold or flu within the previous six months. This question may be interpreted subjectively as some parents may consider a cold to be the 'sniffles', a cough or any incidence in which the child had to stay home for the day. The discrepancy between parents' definitions of a cold or flu may have played a role in this finding.

Interactions

Results revealed one significant interaction between parental pessimism, child positive and negative affect and the social play measure of the PPBS. A follow-up analysis was conducted to examine the influence of high versus low levels of positive and negative affect in the relationship between parental pessimism and social play. The analysis indicated that lower levels of parental pessimism was associated with more social play behavior in children who were rated low in positive affect by parents.

Contrary to the initial hypotheses that suggested that parental pessimism would negatively impact the level of social play, particularly in those children with higher levels of negative affect (or lower levels of positive affect), this finding suggests that less pessimism may influence social play in a group of children less likely to engage in that specific play behavior (i.e. children lower in positive affect). Although, to date, few studies have examined this particular interaction, several previous findings have contributed to the literature on pessimism and affect as related to social behavior.

Extensive research examining 'goodness of fit' between children and their parents may attest to the importance of compatible parent and child characteristics in association with social competence (Paterson & Sampson, 1999). An incompatibility between a parent and a child (e.g. a difficult temperament in the child and the impatience of the parent) may manifest in behavioral adjustment problems or inappropriate responses to various social situations in the child (Paterson & Sampson, 1999).

Likewise, past research has also emphasized the importance of positive relationships between parents (or adults) and children in the success of relationships throughout development and into adulthood (Kochanska, 2002). For example, parent-child relationships characterized by cooperation, mutual enjoyment of shared activities and loving, supportive interactions are thought to enable children to adopt parental values, aid in the development of conscience, increase positive mood and encourage positive interactions with peers (Kochanska, 2002). More specifically, these positive interactions with adults contribute to a child's positive mood, which, in turn, increases the child's desire to interact with peers in a pro-social fashion. Such relationships have

been termed mutually responsive orientation (Kochanska, 2002). In fact, Denham *et al.* (1991) found that specific interactions between mother and child, which facilitated autonomy and allowed for emotional expression, were found to be positively correlated with children's overall social competence. It is reasonable to conclude that this may be an explanation for the current findings as well.

Considerations and future directions

The importance of positive peer relationships throughout development is evident (Carson & Parke, 1996), specifically within the preschool years (Eisenberg *et al.*, 2001). In fact, social competence has been shown to influence other areas of development such as conflict and problem-solving skills (Berndt, 2002). As such, there may be an underlying importance in determining and understanding the factors associated with positive peer relationships (e.g. individual characteristics such as affectivity). However, several important considerations must be taken into account when examining the results of the present study.

It must be restated that the PANAS scale, although completed by parents in the past to measure child positive and negative affect, was originally constructed to be completed by the individual whose affectivity was being measured. Although the correlational results of the present study are consistent with previous research, it is possible that parents were biased in their interpretation of the affectivity of each child. Parents naturally want their children to be perfect and may have succumbed to demand characteristics in their completion of the PANAS.

In addition, the measure of health that was selected for this study was as a result of the current lack of health measures that examine the incidence of illness within preschool children during a specified amount of time. Most of the currently available published measures of overall health are either designed for children of elementary school age or examine health in relation to other areas of functioning such as health as a quality of life. Both types were inappropriate for the measure of health that was sought within this study. However, this study denotes the importance of the development of such a scale within the field.

Conclusion

The purpose of this study was to examine the associations between parental pessimism and peer relations and health in preschool children and to investigate the role that child positive and negative affect played in this association. Results of this study indicated that parental pessimism, in conjunction with child positive and negative affect, is associated with various types of play behavior in preschool children.

Previously, there have been few attempts to examine these particular relationships and, as such, this study contributes significantly to the research within this area. In addition, this study has also provided additional support for previous research concerning pessimism, positive and negative affect, social play and health as well as providing unique findings concerning negative affect and health. Future research in the area will help to further our current understanding of these complex relations.

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Note

1. Sample size was adequate for multiple regressions analyses utilized in this study.

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