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The Relationship between Pretend Play Processes and Anxiety

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### Abstract

The current research was designed to examine how pretend play is related to anxiety. This relationship with pretend play needs more investigation in order to be able to assess and identify those with anxiety. This is important because pretend play could be used as an intervention to reduce anxiety. It was hypothesized that pretend play is correlated with anxiety; if a child has better pretend play skills, parents are more likely to rate their child's anxiety lower than parents of children with poorer pretend play skills. The current study examined cognitive and affective play processes, which include organization, imagination, comfort with the play, and frequency and variety of affect expression. Cognitive and affective play processes were used to test the relationship with anxiety. The participants were 15 preschool-aged children. Measurements for anxiety were done by parental report with the BASC-2 and play was measured with APS-P. It was hypothesized that pretend play would correlate with parent-report of their child's anxiety; the better the play skills, the lower the anxiety. Based on previous research of gender differences in anxiety indicating that females are more anxious, it was predicted that females would be rated as more anxious than males. Correlations were analyzed to examine the relationship between play and anxiety. T-tests were conducted to examine gender differences. No significant correlations were found between pretend play and anxiety. There was no significant difference between anxiety in males and females. Although no correlations were found between pretend play and anxiety and gender differences in anxiety were not found, further research needs to be done due to this study having a small sample size. This was the first study that examined the relationships between pretend play and anxiety in preschool aged children. Therefore, a larger sample size is needed before conclusions can be drawn and recommendations for further research are discussed.

### The Relationship between Pretend Play Processes and Anxiety

Many researchers have found that play is correlated with coping (Russ, 2004). It is believed that children use play as a way to solve problems within their lives (Russ, 2004). According to Russ, play stimulates emotion because children are pretending, which allows them to feel a full range of emotions. Both affective and cognitive pretend play processes have been found to relate to emotion regulation and expression (Christian, Russ, & Short, 2011). With affect expression in pretend play, children learn how to act out their negative emotions by coping and learning problem solving skills. They find creative ways to solve their problems that can apply to other areas in their life. For example, more frequency and variety of affect expression in the child's play relate to better coping skills (Christian, Russ, & Short, 2011). This supports the theory that affective play processes relate to coping, which in turn could relate to reducing anxiety.

Children who engage in good pretend play typically have more developed coping abilities. In addition to affect expression in play, better imagination, organization, and comfort in play correlates with coping. Russ (1988) conducted a study where she found a relationship between divergent thinking and teachers ratings of fifth grade males. The more creative the problem solving skills were during pretend play, the more they should generalize to problem solving skills in their daily lives. Therefore, more imagination used during play correlated with better coping. Christiano and Russ (1996) later found a positive relationship between play and coping and a negative relationship between play and distress in 7 to 9 year olds. Perry and Russ (1998) found that fantasy in pretend play related to frequency and variety of self-reported coping strategies. The coping measure was self-reported by school aged children housed in a homeless

shelter. Children who demonstrated good fantasy skills reported greater frequency and variety of coping strategies when faced with stressful situations (Perry & Russ, 1998). Therefore, more imagination correlated with better coping abilities. Later, Goldstein and Russ (2000-2001) conducted a study on first grade children. They found a positive correlation between the Affect in Play Scale (APS) imagination score, a standard measure that assesses cognitive and affective processes in school aged children, and children's self-report on how well they would be able to cope with a specific situation. The imagination score related to total frequency and variety of coping strategies. All together these coping studies used different samples of children, had different researchers, and different measurements for coping. A variety of scores on the APS scale were correlated with coping, indicating that both cognitive and affect play processes relate to coping abilities.

Previous research has also found that pretend play relates to anxiety. Christian et al. (2011) conducted a study where first to third grade children were assigned to an anxious mood induction condition or a neutral mood induction condition. They found that children with a greater baseline of state anxiety had less organization in their play narrative. Therefore, the more anxious the child was, the less organization was in their play. Christian et al. (2011) also found that positive affect expressed during play was related to the relationship between the level of self-reported state anxiety and condition assignment. Children in the anxious mood induction condition reported that their mood returned to a neutral or positive state after they participated in play. This suggests that pretend play can increase positive affect when children are feeling anxious. Overall, Christian et al. (2011) suggested that pretend play therapies may be useful for those with anxiety to cope. Likewise, Moore and Russ (2008) also found that play interventions were effective in reducing anxiety in typically-developing school aged children.

Similarly, Malcom Watson found that anxiety was related to pretend play in children (1995). Watson argues that pretend play becomes more complex when it involves social interaction and collaboration. To support this theory, Watson (1995) conducted a study where he assigned children to a free-play or story condition. He found that highly anxious children in the free-play condition showed a greater decrease in anxiety than the children in the story condition. This supports the theory that play correlates with anxiety. He also found that highly anxious children expressed more pretend play than manipulative or functional play. This supports the theory that anxiety is correlated with specific pretend play processes. However, Watson found that highly anxious children participated more in pretend play during situational anxiety. Watson also found that pretend play was preferred after an anxiety-provoking situation. Children participated in play to express their emotions and cope with the stressful situation. This supports the theory that the use of pretend play is related to anxiety reduction and coping skills.

Evidence of anxiety correlating with pretend play supports the use of pretend play as an approach to psychotherapy. Based on psychodynamic theory, children use pretend play to control their negative emotions such as anxiety (Russell & Jarvis, 2003). Play therapies are proposed to work due to the gradual exposure and extinction of their anxiety. Pretend play also allows children to express their anxiety and cope better with stressful experiences. For example, Fonagy and Target (1994) conducted a study of 800 children being treated for anxiety and depression in a clinical setting where all received treatment. Most treatments took up to 2 years and about 80% of the children were almost free of their symptoms after play therapy. Burns-Nader (2011) also found that pretend play in a medical setting correlated with anxiety reduction in young patients.

Even though there is research to support that anxiety is correlated with pretend play skills in school-aged children, there needs to be more research examining these relationships in

preschool-aged children. Furthermore, previous research has not looked at pretend play processes separately in this age range. Specifically, the relationships between imagination, organization, comfort in play, variety and frequency of affect and anxiety in preschool aged children need to be examined.

### **Hypotheses**

1. It was hypothesized that pretend play would correlate with parent-report of their child's anxiety; the better the play skills, the lower the anxiety.
2. It was hypothesized that both cognitive and affective play processes would relate to anxiety. Better organization, imagination, and comfort with play would correlate with anxiety. More frequency and variety of affect expression would correlate with anxiety as well.
3. Based on previous research of gender differences in anxiety indicating that females are more anxious, it was predicted that females would be rated as more anxious than males. However, it was hypothesized that pretend play processes would remain correlated with anxiety levels in both genders.

### **Methods**

#### **Participants**

This experiment was conducted by recruiting participants who were 4 to 5 years old. Inclusion criteria for these participants entailed the ability to speak and understand English in order to understand and provide assent to the experiment. If the participants did not meet this criterion then they were excluded from the experiment. This study was conducted as a part of a larger study examining pretend play conducted by Karla Fehr, Ph.D. The current study included

15 participants. The participant ages ranged from 4 to 5 years ( $M = 4.13$ ,  $SD = .35$ ). Nine participants were male and six were female.

## Measures

**Affect in Play Scale – Preschool Version (APS-P).** The APS-P (Fehr & Russ, 2014; Kaugars & Russ, 2009) is a standardized measure that assesses cognitive and affective processes in preschool aged children. This measure was adapted from the school-aged Affect in Play Scale (Russ, 1987, 1993). The APS-P is a videotaped play task that assesses imagination, organization, comfort within the play, and frequency and variety of affect expression. As part of this task, children are provided with toys such as a dog, elephant, bear, shark, bunny, camel, cheetah, hippopotamus, giraffe, three plastic cups, a car, and a ball. Children are given a short story stem and then asked to make up their own story for five minutes.

**Behavior Assessment System for Children, Second Edition (BASC-2).** The BASC-2 (Vannest, Reynolds & Kamphaus, 2009) assesses behaviors and emotions of preschool through college aged individuals. In the current study, the BASC-2 parent-report form was specifically used to measure the preschoolers' anxiety.

## Procedure

In this study, preschool aged children were recruited from local preschools in the Carbondale, Illinois area. Recruiting was done by providing flyers to children to take home as well as hanging them up around the community. Parents that were interested contacted the researchers. From there, a first meeting was set up. This visit either took place in a research lab in the Psychology Department (LSII) of Southern Illinois University Carbondale or at a private location in the child's school. The first visit involved consent from the legal guardian. Then the

child gave assent to participating in the study. The APS-P and BASC-2 were both administered during this first visit.

### **Results**

Pearson correlations were conducted to examine the relationships between the pretend play variables and anxiety. The relationships between organization, imagination, comfort with play, total affect, and variety of affect, and anxiety were not significant (see Table 1). An independent samples t-test was conducted to examine the differences in anxiety between males and females. There was no significant difference between males ( $M = 12.89$ ,  $SD = 7.42$ ) and females ( $M = 10.67$ ,  $SD = 3.26$ ) on their level of anxiety;  $t(14) = .68$ ,  $p = .39$  (two tailed).

### **Discussion**

The primary concern in this study was to examine how pretend play was related to anxiety. In this study, pretend play was not correlated with parent-report of their child's anxiety. It is possible that pretend play skills do not relate to anxiety in preschool aged children. This could be due to the participants being placed in a neutral setting. In previous research, participants were placed in anxiety provoking conditions where researchers examined the child's state anxiety (Christian, et al., 2011; Christiano and Russ, 1996; Perry & Russ, 1998; Watson, 1995). The current study did not have conditions set to increase the participant's anxiety. Further research with preschool aged children and state anxiety needs to be conducted. Another potential contributing factor is the age of the participants. The current study was the first examination between cognitive and affective play processes and anxiety in preschool aged children. Previous research has found that pretend play skills in preschool aged children is less differentiated than has been found in school aged children (Fehr & Russ, 2014). Correlations have been found between cognitive and affective play processes and anxiety in school aged children (Christian et

al., 2011; Christiano & Russ, 1996; Goldstein & Russ, 2000-2001; Perry & Russ, 1998; Russ, 1988). As this was the first examination with preschool aged children, further research needs to clarify these relationships.

If there was a larger sample, it is possible that correlations may have been found between pretend play skills and anxiety. A larger community sample size would have increased the power for analyses. A power analysis indicated that a sample size of 64 would have been needed in order to detect a medium effect size. Therefore, it is possible that these relationships might have been significant in a larger sample. Previous research in school aged children has found that pretend play is related to emotion regulation, coping, and the ability to solve problems (Christian et al., 2011). Likewise, a relationship between pretend play, emotion regulation, and emotional competence in preschool aged children was found (Lindsey & Colwell, 2003). Previous studies contained larger sample sizes and found correlations between pretend play skills and anxiety (Burns-Nader, 2011; Christian et al., 2011; Fonagy & Target, 1994; Russell & Jarvis, 2003; Watson, 1995). However, as the current study contained only 15 participants, additional research is warranted.

Of note, previous research has found specific relationships between organizational skills and affect expression within pretend play and anxiety. For example, previous research has indicated that organization in play is correlated with anxiety and coping abilities (Christian, Russ, Short, 2011; Christiano & Russ, 1996; Goldstein & Russ, 2000-2001). Likewise, Grossman-Mckee (1989) found that first and second grade children who had greater state anxiety had less organization in their play. Christian et al. (2011) found that children with a greater baseline of state anxiety had less organization in their play narrative. Previous research has also found a correlation between affect expression and anxiety. Christiano & Russ (1996) found

expression of affect and imagination in play correlated with the ability to cope. They also found that more affect expression correlated with less distress and more coping skills (Christiano & Russ, 1996). Goldstein and Russ (2000-2001) found a positive correlation between the Affect in Play Scale (APS) imagination score and the children's self-report on how well they would be able to cope with a specific situation in first grade children. Due to the strong relationship that has been found between anxiety and pretend play skills in school aged children, it is still possible that play processes could be related to anxiety in preschool aged children. Further research is needed in this area.

Although relationships between pretend play and anxiety were not found in this study, these variables are important to continue to examine because pretend play may be one possible avenue by which anxiety could be reduced. Previous studies indicated that anxious children play differently than non-anxious children (Christian et al., 2011). Therefore, those who are anxious during play can be recognized. There may be less organization, imagination, comfort, and frequency and variety of affect in pretend play with those who express anxiety. Research also indicates that children can experience a reduction in anxiety after they play, especially if they have good imagination skills (Christian et al. 2011). Moreover, Barnett and Storm (1981) found that children's anxiety level decreased after they played. Later, Barnett (1984) found that highly anxious children who were assigned to a play group experienced a greater reduction in anxiety. This suggests that pretend play reduces anxiety. Likewise, Milos & Reiss (1982) found that separation anxiety in kindergarteners decreased if the child participated in play, especially if it was higher quality play. However, other studies have found little to no correlations between anxiety reduction and pretend play. Due to these inconsistent findings, more research needs to be

conducted to examine anxiety and pretend play in preschool aged children before implications can be drawn.

### **Limitations and Suggestions for Future Research**

Given the strong relationship between pretend play and anxiety in school aged children, further research is needed in preschool aged children before conclusions are drawn. A limitation of this study was that there was a small community sample size of 15. Future research should contain a larger sample of children to increase power. Furthermore, previous research focused on state anxiety whereas the current study examined stable, parent-reported anxiety symptoms over the past month. Future research should examine both trait and state anxiety so that the research can be compared and generalized to other populations. Relatedly, including clinically anxious children potentially could provide more information about how children play when they are anxious. Clinically anxious children have higher state and trait anxiety. Therefore, they can potentially provide significant data for both. Moreover, pretend play should be examined as an intervention for clinically anxious children to determine if it reduces anxiety in children.

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Table 1

*Correlations between the APS-P and BASC-2 Anxiety*

BASC-2 Anxiety	Imagination	Organization	Comfort	Total Affect	Variety Affect
	.14	.00	.06	.01	-.05