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## Effects of Maternal Views and Support on Childhood Development Through Joint Play

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# Effects of Maternal Views and Support on Childhood Development Through Joint Play

## Abstract

*Background:* Playful interactions draw a mother and child toward each other in positive ways; therefore, time spent in playful interactions with a responsive mother may be a developmental asset for a child. It is critical to examine how mothers support their children in joint play as well as their views of joint play.

*Methods:* This mixed-methods study consisted of 32 mothers and their typically developing children. The Parent's/Caregiver Support of Young Children's Playfulness, the Test of Playfulness, the Environmental Supportiveness Assessment, and seven open-ended interviews were used to assess joint play and maternal perceptions of this experience.

*Results:* Significant correlations were found between maternal support behaviors and a child's playfulness manifestation. The more frequently the mother supported her child during joint play, the less playful a child was. However, the mothers who supported their children's engagement in the process and promoted decision-making and creative play had children that were more playful. The theoretical framework explained maternal perceptions of joint play and what mothers thought was important for their children.

*Conclusions:* The mothers perceived joint play as central to their lives and as an opportunity to teach and direct their children's engagement. It appeared the children were more playful when their mothers supported their self-exploration, decision-making, and creative play.

## Comments

The authors report that there are no conflicts of interest to disclose.

## Keywords

co-occupation, joint play, playfulness

## Cover Page Footnote

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## Credentials Display

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Play is a central and fundamental area of occupation in the lives of children and significantly contributes to their overall development (Kjorstad, O'hare, Soseman, Spellman, & Thomas, 2005; Sigafos, Roberts-Pennel, & Graves, 1999; Waldman-Levi & Weintraub, 2009). Play supports the development of adaptive behaviors (Saunders, Saver, & Goodale, 1999) and facilitates school readiness, literacy development, and self-regulation (Lifter, Foster-Sanda, Arzamarski, Briesch, & McClure, 2011). Engagement in play throughout childhood also prepares children to take future roles in their adult lives (Knox & Mailloux, 1997; Parham & Primeau, 2008; Stagnitti, Unsworth, & Rodger, 2000). Joint play is a form of co-occupation (Pickens & Pizur-Barnekow, 2009; Whitcomb, 2012) when parenting or child rearing and play, two central occupations, co-occur. During this engagement, each individual's performance and experience is influenced by the actions and emotional state of other members involved (Humphry & Thigpen-Beck, 1998). Co-occupation in the form of joint play involves physical and sensory environmental aspects, a child's behavior and development, as well as the parent's personality traits and their perceived roles (Waldman-Levi & Weintraub, 2009; Whitcomb, 2012). The existence or absence of a disability, cultural beliefs, and the amount and type of play opportunities contribute to and shape the way children play and develop (Chan, Penner, Mah, & Johnston, 2010; Morrissey & Brown, 2009). However, it is not clear whether parental support provided during joint play experiences and their playfulness tendency relate to children's playfulness. The aim of this mixed-methods study was to examine the manifestation of co-occupation in the form of mother-child joint play as well as how mothers perceived this play experience.

### **The Importance of Play for a Child's Development**

Joint play is an enjoyable activity when a mother facilitates her child's opportunity to choose and lead and/or initiate play while responding to or initiating play opportunities. During this time, a mother frames her child's play behaviors with empathy, attention, acknowledgement, and validation. When mothers are unable to support children in this way, play may be excessively constrained by maternal "reinforcements and inhibitions mediated by their fantasies, expectations, and inner conflicts" (Brazelton & Cramer, 1991, p. 12). Furthermore, Keren, Feldman, Namdari-Weinbaum, Spitzer, and Tyano (2005) found that a child's symbolic level was predicted by maternal creativity facilitating play in the dyadic context. This finding suggests that mother-child play may be an important factor in the development of children's symbolic capacity. These findings support the importance of children having mutual playful and contingent interactions with their mothers as a key factor in their development of social skills (Desmarais, 2006; Waldman-Levi, 2012).

Nakano, Kondo-Ikemura, and Kusanagi (2007) examined the relationship between infants' sensitivity to mothers' contingent and noncontingent expressive behaviors and individual differences in mothers' habitual playfulness. The main findings showed that during the actual interaction sessions, the mothers' playfulness significantly correlated with their infants' gaze at them. However, when infants watched their mothers' previous playful behavior via videotape, this relationship was not found. Morrissey and Brown (2009) described the role that mothers have in joint and pretend play with their children and highlighted the importance of promoting the use of objects during play as a support for children's intellectual development.

The literature about the role of play in child development primarily stems from studies assessing interaction quality (Aoki, Zeanah, Heller, & Bakshi, 2002; Brazelton & Cramer, 1991; Desmarais, 2006; Feldman, Keren, Gross-Rozval, & Tyano, 2004; Keren, Feldman, Namdari-Weinbaum, Spitzer, & Tyano, 2005; Waldman-Levi, 2012). To expand on how play is assessed, Jones, Hutchings, Erjavec, and

Viktor (2015) described the development and initial testing of a new observation scale to code parental play behaviors, including talking, playing, touching, moving, and responding. Their analysis resulted in the three-component model, including positive physical encouragement, sensitive parenting, and verbal engagement during infant-parent interaction, but it did not fully assess parental support for playfulness behavior. Recently, Sethna, Murray, Edmondson, Iles, and Ramchandani (2018) assessed playful excitement, touch, and active engagement of fathers who experience depression. While their play assessment more fully examined parent-child play than the study by Jones et al. (2015), it did not encompass essential early play-based behaviors, such as praise, support of the child in modifying play activities, use of objects, and promotion of social play engagement. Chan, Penner, Mah, and Johnston's (2010) study is an example of a first step in examining play behaviors that are evident when children are engaged in play with their mothers. They assessed authoritative and sensitive behavior, use of control, and responsiveness during free and structured play episodes (Chan et al., 2010). Shriver, Frerichs, Williams, and Lancaster (2013) compared mother-child interaction during joint play as assessed in their home environment versus a clinic environment. They did not find any differences in behavior manifestation between these two environments.

### **Joint Play**

According to Winnicott, one of the core aspects of mother-child interaction during play is “maternal presence”; it provides the child with a sense of safety required to play (Waldman-Levi, 2012; Winnicott, 1995, 1999). During the separation process when the young child learns to be alone in the supportive presence of his or her mother, a sense of emotional safety is gradually developed. Winnicott further described that a mental space, “secure space,” created between the mother and her child, is where the child can explore and play (Winnicott, 1995, 1999). Aoki, Zeanah, Heller, and Bakshi (2002) reported that infants who achieved a balance between independence and dependence demonstrated the ability to take on new challenges enthusiastically during mother-child play (such as attempting to solve problems) while also accepting help without conflict. The conflict self-resolution that is demonstrated in joint play is considered the most salient index of a young child's mental health in the frameworks of both separation-individuation and attachment theories.

Mother-child joint play is also influenced by what mothers think of their child; what they value as essential for their child's growth and development. There is emerging evidence about what parents think about their children's engagement in play. For instance, Brumfield and Christensen (2011) reported that parents in their study viewed play as essential to a child's development and learning and that play is transient throughout life so it has perpetual propensity. In a study by Lin and Yawkey (2013), parents reported that they valued play for its contribution to their child's overall development (e.g., problem-solving, thinking, imagination and creativity, language, and social emotional skills). This emerging evidence stemmed from quantitative studies and lacks in-depth exploration of these and additional aspects of joint play that parents may think are important and that can contribute to this type of co-occupation.

### **Current Study**

Ample research exists regarding children's play and playfulness, and its importance to their development as well as to mother-child interaction, mostly in clinical samples. However, there is limited research on what type of maternal behaviors support child playfulness behavior and what mothers think about their joint play experiences. Such information can guide occupational therapists working in early intervention to facilitate supportive play interactions between young children and their parents.

Furthermore, the exploration of the type and amount of support parents provide to their children during joint play as well as their perceptions could potentially expand occupational therapy intervention to nonclinical populations as well. Expanding occupational therapy clinical understanding of joint play in nonclinical populations may contribute to the wellness of future clients. This mixed-methods study aimed to examine the manifestation of co-occupation in mother-child joint play with the following queries: (a) what type of maternal supportive behaviors during joint play will associate with children's playfulness behavior? (b) how do mothers perceive their joint play experiences with their children? What theory explains the phenomenon of mother's perception of joint play experience with their children in a nonclinical sample of mother-child dyads?

## **Method**

### **Design**

The Long Island University institutional review board (IRB) reviewed and approved this study. It consisted of a convergent mixed-methods design in which a qualitative research component was embedded into a primarily quantitative research design. A convergent mixed-methods design allowed the researchers to use different ways of collecting data relating to joint play that complement each other. It also assisted in validating and illustrating the quantitative data (Creswell & Plano Clark, 2018). The quantitative cross-sectional design allowed the researchers to examine which specific maternal behaviors during joint play relate to which of the child's behaviors and what type of relations exist. The qualitative component was included to support the researchers' understanding about mothers' perspective about their experience playing with their children as participants in the videotaped play session, as well as their overall views about their children's typical individual play and parent-child play.

### **Participant Selection**

The study inclusion criteria were: (a) children with no known diagnosis; (b) children and mothers with no major sensory deficits; (c) children between 12 months to 5 years of age; (d) an understanding of written and spoken English; and (e) in the case that the parent has more than one child in the above-mentioned age range, the oldest child is recruited for this study. A convenience sampling method was used to recruit 32 dyads of mothers and their typically developing children living in a metropolitan area. All 32 dyads completed all of the measures; however, only seven of the interviews of mothers were used in the qualitative analysis, as the rest of the interviews were not as robust to allow insight into the phenomena of joint play.

### **Data Collection**

Both quantitative and qualitative data were collected during the same session with each parent-child participant dyad at their home by coinvestigators and under the supervision of both primary investigators.

Coinvestigators recruited families who met the study's inclusion criteria and scheduled a time for a home visit. After we ensured that the mothers fully understood what the study entailed and gained their consent to participate in the study, they were asked to play with their child for 15 min as they typically do. The joint play was videotaped with a portable video camera. Immediately following this joint play period, the coinvestigator engaged the mother in an open-ended and audio-recorded interview.

### **Research Team and Reflexivity**

**Coinvestigators.** Graduate occupational therapy students were involved in recruitment, data collection, and transcription of interviews. They all completed a series of research methods courses and

a portion of their clinical education prior to partaking in this study. Throughout the study, the co-PIs engaged in conversations and discussions with the co-investigators of their own perceptions of play and joint play experiences, potential biases and how it might affect the interview, and observation of joint play both at the home visit and later when they transcribe the interviews.

**Co-PIs.** The Co-PIs had respective responsibility that matched with their expertise. The first author has extensive experience in the content of joint play and quantitative methods and more novice experience with respect to qualitative methodology. Nevertheless, she engaged herself in extensive learning, course work, and practice and was mentored by her co-PI, the third author. The second author is a clinical psychology graduate student with extensive training in scoring video-recordings of parent-child interactions. As co-PI, she scored all video-recorded observations, and then the first author assisted in establishing inter-rater reliability. The third author has extensive experience as qualitative researcher as well as in joint play. All three co-PIs engaged in numerous discussions about their own conceptions of joint play and the potential bias that may arise and affect their ability to guide their coinvestigators as well as to analyze and interpret the findings.

## Measures

**Demographic Questionnaire.** Developed for this study's purposes.

**Parent's/Caregiver Support of Young Children's Playfulness (PCSYCP;** Waldman-Levi & Bundy, 2016). The PCSYCP is a criterion-referenced observation tool for use with infants, toddlers, and children. Scores are based on a 15-min observation of joint play in a familiar play setting (Skard & Bundy, 2008). The PCSYCP assesses the support a parent or caregiver provides to his or her child during play. It originally consisted of 29 items rated on quality of the behavior with scores ranging from 0 (*low*; parent is unaware of child's needs) to 3 (*high*; parent response matches with child's ability and preference). Some of the items scored on the proportion of time scale with a range of scores from 0 (*low percentage of occurrence*) to 3 (*high percentage of occurrence*). When a behavior is not evident because of irrelevancy, then a score of "not applicable" is assigned.

The PCSYCP scale showed excellent preliminary internal consistency [ $N = 8$ , 1 to 4.8 years of age; Quality Scale (24 items)  $\alpha = .95$ ; Frequency Scale (24 items)  $\alpha = .85$ ]. Inter-rater reliability was based off percentage of agreement and reached acceptable level, but required additional work ( $n = 4$ ; 12 months - 3 years of age, 60%-80%; and  $n = 4$ ; 3 - 5 years of age, 21%-72%). An expert review supported the PCSYCP content validity. Criterion validity is reflected by the significant association between the parent's playfulness tendency and support provided to the child's playfulness behavior,  $r = .87$ ,  $p < 0.05$  (Waldman-Levi, Shiells, Bundy, & Olson, 2017). Next, a panel of expert pediatric occupational therapists examined the definition of the PCSYCP items while observing videos of infant and toddlers during joint play with their mothers. They recommended which items to remove from the scale because of redundancy and also suggested which items might be better scored on quality of behavior (quality scale) and not for its occurrence (frequency scale). This process resulted in the PCSYCP consisting of 27 items, 17 of the quality scale, and 10 of the frequency scale. In the current study, the PCSYCP internal consistency was found acceptable, for the overall scale  $\alpha = .68$ , for the quality scale  $\alpha = .54$ , and for the frequency scale  $\alpha = .62$ . In this current study, inter-rater reliability of 20% of the video-recorded observations fell within a satisfactory range, 81%-100%.

**Test of Playfulness (Version 4).** The Test of Playfulness (ToP; Bundy, 2003) is a standardized observation tool for use with infants, children, and adolescents 6 months to 18 years of age. Scores are based on 15-min observations in familiar play settings (Skard & Bundy, 2008). It views playfulness as a

relatively stable personality characteristic that is expressed by the tendency to be involved in a play activity. The ToP consists of 29 items that represent four core concepts: intrinsic motivation, internal control, freedom from unnecessary constraints of reality, and framing. The items are scored on a 4-point (0 to 3) scale with respect to extent (proportion of time), intensity, or skillfulness; thus, a high score on the ToP indicates greater playfulness of the child.

The ToP psychometric properties are based on an array of studies consisting of typically developing children and those with disabilities (Bundy, 2003). The ToP is available in the public domain (Skard & Bundy, 2008). In the current study, inter-rater reliability of 20% of the video-recorded observations is satisfactory, ranging from 80% to 97% level of agreement between raters.

**Environmental Supportiveness Assessment.** The Environmental Supportiveness Assessment (TOES; Skard & Bundy, 2008), is a 17-item observation, administered to children from 15 months to 12 years of age. The TOES includes four elements of the environment known to impact play: caregivers, playmates, space, and objects. Items are scored on a 4-point scale to reflect of the extent to which the environments support children in meeting their motivations using same 15-min free play observation that is used for the ToP. The TOES has excellent evidence of validity and reliability for children with a range of disabilities and with typically developing children. The TOES is available in the public domain (Skard & Bundy, 2008). In the current study, we selected and scored six items of maternal behavior during joint play (e.g., mother promotes activities and opportunities, participates as equal). In the current study, inter-rater reliability of 20% of the video-recorded observations is satisfactory, ranging from 73% to 100%.

**Open-ended interview.** An open-ended interview guide was developed so that similar data were collected from each mother and a constant comparative method could be used to analyze the viewpoints about play across mothers participating in this study. The interview guide included the following: Tell me about this experience, how it compared with your typical play with your child; How does your spouse typically plays with this child? Can you tell me about your experience playing as a child? We then asked mothers about their views about the role of play in children's lives and development. The interviewers listened to what the mothers shared and, at times, added prompts to support the interviewees in sharing their viewpoints.

## Analysis

**Quantitative.** The 15-min joint play video recordings were scored separately using each observation manual (e.g., PCSYCP, ToP, and TOES). For the quantitative analysis, we used total averaged score for each scale (e.g., PCSYCP total as well as totals of quality and frequency scales; ToP, and TOES). Descriptive and correlational parametric and non-parametric statistics were employed ( $p < 0.05$ ) to answer study questions using SPSS version 25.

**Qualitative.** Out of the 32 interviews, only seven were appropriate for data analysis, as the others did not present robust information. The audio-recorded interviews were transcribed then uploaded to ATLAS.ti version 8 to manage interview transcripts, coding, and categories and themes. Data analysis was performed inductively, in line with the qualitative studies paradigm (Creswell & Poth, 2018) aiming to understand the mothers' perceptions and views. The constant comparative method used to identify common ideas repeated across seven interview transcripts (Merriam & Tisdell, 2016; Yin, 2016). This inductive process consisted of three steps: (a) open coding: the first author independently read every interview transcript, line by line, to capture initial units of meaning (codes/themes) emerging from the data; (b) axial coding: the first author reviewed initial codes to identify relationships between codes and

group them together; and (c) integration: the findings were further grouped under broader and more abstract categories (i.e., emergent themes) (Creswell & Poth, 2018). The third author read the transcript and then reviewed all levels of codes, groups, and categories to verify that emerging concepts actually stemmed from the data and reflected the mothers' perceptions and views of their joint play experiences.

### Trustworthiness and Credibility

All co-PIs and co-investigators were engaged in data collection and were trained to perform the specific tasks for which they were responsible. While analyzing the data, the co-PIs protected themselves against biases in several different ways. They collected data from 32 different mothers with whom they were not familiar, they created an audit trail through the use of computerized management software to analyze and organize data, and then checked their inductive process against the transcripts. At the last step, when the third author read through the transcripts and compared her thoughts against the driven codes, groups, and categories that her fellow author created, they had long discussions about their own perceptions and views about the joint play that they also observed and the related interviews to which they listened. It established credibility and trustworthiness to the inductive process as well as assisted the authors in making meaning of what they observed (quantitative analysis of observation) and heard (qualitative analysis of interviews) and, finally, to converge both research methods.

## Results

### Quantitative

The sample consisted of 32 typically developing children and their mothers, who were predominantly Caucasian, married women with a college level education and an average age of 33.8 years ( $SD = 4.7$ ). The children's ages ranged from 12 months to 56 months,  $M = 28.8$  months ( $SD = 13.8$ ). Sixteen of the children were girls (53%) and 14 of the children were boys (47%). Most of the children were in a daycare and the others were at home or in a school setting (see Table 1).

The children were rated as relatively playful and the mothers were rated as providing their children with a supportive play environment, as well as supporting their children's playfulness behavior (see Table 2 for study variable descriptive information). Examination of co-occupation manifestation revealed a significant, positive, and moderate association between environmental support (TOES total score) and the quality of support the mothers provided to their children during joint play (PCSYCP total quality scale),  $r = .37$ ,  $p < 0.05$ . It suggests that these two measures assess aspects of maternal support of children's playfulness in similar ways, yet each instrument has its own focus. The child's playfulness overall score did not associate with maternal support of their child's playfulness.

**Table 1**

#### Demographic Information

Participant	Demographic	n %
Mother	English first language	Yes 26 (90%)
		No 3 (10%)
	Education	0-7 1 (3.4%)
		8-12 4 (13.8%)
		Undergraduate 11 (38%)
		Graduate 12 (41%)
		Terminal degree 1 (3.4%)
	Occupation	Health professions 7 (24.4%)
		Education 10 (35.7%)
		Sales, marketing, finance 5 (17.8%)



		Services	3 (10.7%)
		Self-employed	4 (14.3%)
Marital status	Married	24 (92.3%)	
	Divorced	1 (3.8%)	
	Single	1 (3.8%)	
Ethnicity	Caucasian	23 (79.3%)	
	Hispanic	6 (20.7%)	
Country of origin	US	26 (89.7%)	
	Non US	3 (10.3%)	
Child Gender	Male	14 (46.7%)	
	Female	16 (53.3%)	
Educational setting	Home	5 (22.7%)	
	Daycare	10 (45.5%)	
	School	6 (27.3%)	
Child's place in the family	First child	20(69%)	
	Second child	7(24.1%)	
	Third child	1(3.4%)	
	Fourth child	1(3.4%)	

Note. Missing data n = 3 - 10.

**Table 2**

*Parent Support of Child Playfulness, Child's Playfulness, and Environmental Support*

	N	Minimum	Maximum	Mean (SD)
PCSYCP Quality scale	31	2.24	3.00	2.73 (.18)
PCSYCP Frequency scale	31	2.40	3.00	2.74 (.16)
ToP	33	1.21	2.59	1.85 (.38)
TOES	31	1.17	2.00	1.79 (.26)

Note. TOES = Test of Environmental Supportiveness; ToP = Test of Playfulness; PCSYCP = Parent/Caregiver Support of Child's Playfulness.

Since the PCSYCP scales presented a moderate, yet acceptable, internal consistency, we further explored associations between maternal support of a child's playfulness as observed in the PCSYCP and the TOES with a child's playfulness (ToP) at the items level. We found that the more frequently that a mother supported her child's engagement in the play process and worked to overcome obstacles by negotiating and praising, the less playful behavior her child demonstrated. However, when mothers more frequently supported their children's decision-making and interaction with objects, provided consistent boundaries, and decreased their overriding behavior, the more playful the children appeared (see Appendices A and B). When we examined the quality of maternal support, it appeared that children with a high level of decision-making behavior had mothers who supported their engagement in a process-oriented play; encouraged transitions between play frames; and supported a sense of safety, creative use of objects, and pretend and mischief play behaviors. Providing praise was negatively associated with how playful the child behaved (sense of safety and pretend). Of interest is that the children's affect associated significantly, positively, and moderately with their mothers promoting modifications and creative use of objects during play (see Appendices C and D).

We also examined the possible associations between the PCSYCP scales items with those of the TOES. A few maternal supportive behaviors as measured by the PCSYCP quality scale significantly, positively, and moderately correlated with caregiver's supportive behavior as measured by the TOES

(see Table 3), suggesting these two instruments share similarities, yet are different in the level of detail and focus.

**Table 3**

*Associations Between Parent Support Quality Scale and the TOES*

	PCSYCP			
	Actively supporting	Support process	Demonstrate positive affect	Supports transitions
TOES				
Caregiver promotes player's activities and opportunities	.12	.16	.49**	.39*
Caregiver participate as equal	.45*	.59**	-	.64**

*Note.* TOES = Test of Environmental Supportiveness; PCSYCP = Parent/Caregiver Support of Child's Playfulness; \* $p < 0.05$ , \*\* $p < 0.01$ .

### Qualitative Data Analysis

The mothers' reflective thoughts on their joint play video-recorded experiences provided the basis for the framework (see Figure 1) explaining the phenomena of joint play as co-occupation. The "Maternal Perception of Co-Occupation: Joint Play" framework presents maternal reflections of joint play experiences in their home environments and is illustrated as an apiary. The apiary represents a colony that contains and holds together the collection of reflective thoughts mothers shared on joint play contributors. The apiary is made out of elements that one produces and are equally important. In the "Maternal Perception of Co-Occupation: Joint Play" apiary the central point is that maternal perception of joint play and elements are the codes, groups, and categories that relate to this perception (see codes map in Table 4).

The central theme in the "Maternal Perception of Co-Occupation: Joint Play" framework apiary is maternal perception of joint play as it occurred in the home environment. The mothers commented that it was the first time they were asked to share their thoughts about an everyday activity. Being the primary caretakers and spending more hours at home than their spouses, it was common for them to describe themselves as more frequently engaged in joint play after work hours.

**Dyad 22:** Yea for the most part when we're home, um, the TV is usually on though, I didn't have the TV on at this time but usually that's what she's doing, playing with her blocks or her dolls or reading a book, um, and other times she's on the iPad watching those educational songs or cartoons. But yea, for the most part it's very typical.

Yea . . . It's usually me just because I get out of work earlier and my husband works overtime sometimes, so I [am] with her most of the time, so I would say, yea, me definitely more.

**Dyad 26:** Umm, it's usually me. My husband has a second job, so a lot of the time it's me and, like, I'll say "when your sister goes to bed we can . . ." You know, like stuff like this she won't knock it down. So, like blocks and stuff we tend to do when she's not around. So she doesn't wreck it cause that's a whole other element when she wrecks his train tracks or his blocks. But yeah, it's me. I don't mind getting messy. See, like, I'm the one to take out the play-dough. My husband wouldn't do something like that. Or, like paint. Like we were doing arts and crafts earlier. He's really into that. But yeah, it's usually me. That's a long-winded answer.

**Dyad 32:** It's pretty standard for us and for what we do. He likes to play with the plastic animals and goes over to the air conditioner for some reason.

Well, he works so he [my husband] doesn't get as much time with him.

The “Maternal Perception of Co-Occupation: Joint Play” framework is made out of 10 categories and themes (see Table 4 and Figure 1) that relate to and explain joint play experiences between mother and child in this sample of seven interviewees.

**Mother-child joint play, mother reflection of child, and child development.** The mothers felt this experience was similar to what they would typically do together, and one mother felt it was different in certain aspects, because she is typically very busy and, therefore, she does not have many opportunities to play with her child. The mothers shared their thoughts about child development as it relates to play experiences and what they think about their children in general.

**Dyad 39:** This is the first time that I actually played with her with this toy, umm, she really responded to it well, I think. Umm, just the way that she was able to respond to me. Because I, you know, I'm usually either doing something, I'm studying or I'm doing something in the house, so she's on her own. She's usually like . . . she has all kinds of toys, so she's just living (laugh) just using her imagination and you know, that's pretty much what she does.

**Dyad 32:** He's definitely more of a free play kid. He does what he wants and he doesn't really follow me and I follow him. I took him to a toddler play time and all of the other kids played around the water table. I put him down next to the kids and he walked away. [He] starts exploring all around the area and that's typical for Jack. I take him to a playground, he doesn't want to play in the playground. He wants to explore around the area. So, he is definitely like a free spirit. He is like a hippie kid (mutual laughing).

They mothers shared their approach to joint play:

**Dyad 20:** Um, I think it's interesting. As a first time mom, he's my only child and my first child so it was kind of hard . . . I think play at first, it's just so natural, like whatever you think of you just do. Slash. What society, society gives you, so if someone buys you this kind of toy, or this type of toy, you start doing that with them. Whereas, the more I read, I start to read that there's other types of play that you can do that I haven't, I hadn't thought of, like, I read a suggestion that kids should try stacking things or kids should try opening zippers or putting in containers or even just peek a boo in general.

**Dyad 36:** “So basically, I decided to work on a puzzle with John just to use something structured. He did have soccer earlier, like I told you, so he was a little bit tired, so I did not want to do something too exhausting because then he would start getting cranky.”

**Dyad 20:** Um, yes. So, usually I come home after school and KJ and I play together before it is time for dinner and a bath. And he always has a lot of energy. Um, so we kind of run around and do things. I usually let him kind of explore and kind of lead the way on what kind of activity he wants to do. Um, but today I was trying to do a little bit more specific activities with him but that's kind of how it is.

All of the mothers reflected on their child's play style, including preferences, ways their child plays and copes with challenges, hobbies they have, and gender differences in play. It seemed it was easy for them to identify their child's play patterns as well as challenges.

**Dyad 20:** Sometimes I would say he's a little bit more active. Like we have steps, um, that he likes to climb over and over again and we have swings and slide so he likes to go on that a lot.

Um, he likes to on the front of the house and walk up and down the street, um, but he's always running on it so it makes me nervous cause it's on the cement.

**Dyad 33:** She likes to interact and play one-on-one. She also likes to be read to and answer questions in a book. She does have a problem with interacting with her peers at school. She needs that one-on-one interaction to sit and focus and answer questions and attend.

One of the mothers seemed to realize during the interview that her child acts differently around her during play and in general. She mentioned other people addressed that; however, it seemed the interview situation allowed her to self-reflect and perhaps accept that her child demonstrates difficult emotions around her more than around others. She continued to reflect on the reasoning behind it while comparing father-child interaction and joint play to her's, attributing it to gender differences.

**Dyad 20:** People will often tell me sometimes he gets like frustrated, like, lets out his emotions more with me. I see he gets more frustrated easily or he at least shows me that and, um, with his dad he does other activities. But I think it's because my husband and I, or men and women, however it is, we think differently, so the activities they do together, like for instance, they are constantly shooting the basketball like in the hoop and I'm more like, I'm going to tickle you or I'm going to hide or something. So, we definitely do different activities together.

Environmental influences, comprised of codes, change in child's play when a new sibling is born; whether or not the child was aware of being observed; and how the child's play behavior is in a different environment, cultural differences, and mother's profession. For instance, "Okay, so I think he is aware that someone is watching so it's hard for him to shut that part off" or "If you take her to another environment that she is not used to, she will not act the same." Another mother spoke about cultural differences of how she used to play and her child's current culture of play: "It's more creative. It's more novel . . . you don't have [the] type of video games or computers or anything." One mother reflected on her profession and how it manifests in her joint play: "which is strange to me, because you know working with students who are special needs, they can't [be] still in one spot. And also working with toddlers as well, in the past, they can't stay still . . . I think it is very important to provide language for my child."

**Father-child joint play, mother versus father joint play, and parenting.** The mothers shared that their spouses had less time to play but that they also play differently with their children, for example, "we play with him differently. He is more physical and he'll throw him around, spin him around" and "They tend to draw or do something very structured." Two mothers reflected on their parenting: "We're trying to be more consistent on what we let him do" and "I think we (parents) joke around a lot with each other and she sees that."

**Mother's perception of playfulness and mother childhood.** About five mothers described themselves as playful individuals. The mothers shared their experiences growing up and the opportunities they had to play and with what they preferred to play. Most of the mothers did not recall playing with their parents but rather playing with siblings. It appeared as if the cultural environment they grew up in affected their childhood memories and they mentioned they were engaged in more outdoor play activities and imaginary play than their child.

**Dyad 32:** I think I was into pretend (play) you know; we would take the Barbies out to the woods and have Barbie adventures in the woods with stuffed animals. Me and my sister used to like to make up stuff (stories) or we would sit and make up stories and tell stories to each other. So, I definitely believe that pretend was a big thing.

**Dyad 36:** It's more creative. It's more novel. You don't have any type of video games or computers or anything. I didn't even have toys. We created them by hand. We went outdoors. We played. We used our imagination. It's so different than in this culture. Completely.

**Dyad 39:** With my sister, we played sometimes together but it was more, you know, just me, using my imagination. It was kind of like what 'kids' did; my mom would play with us sometimes, like here and there, but it wasn't like we were interactive with my mom, I was not interactive with my parents. At all. Ya know?

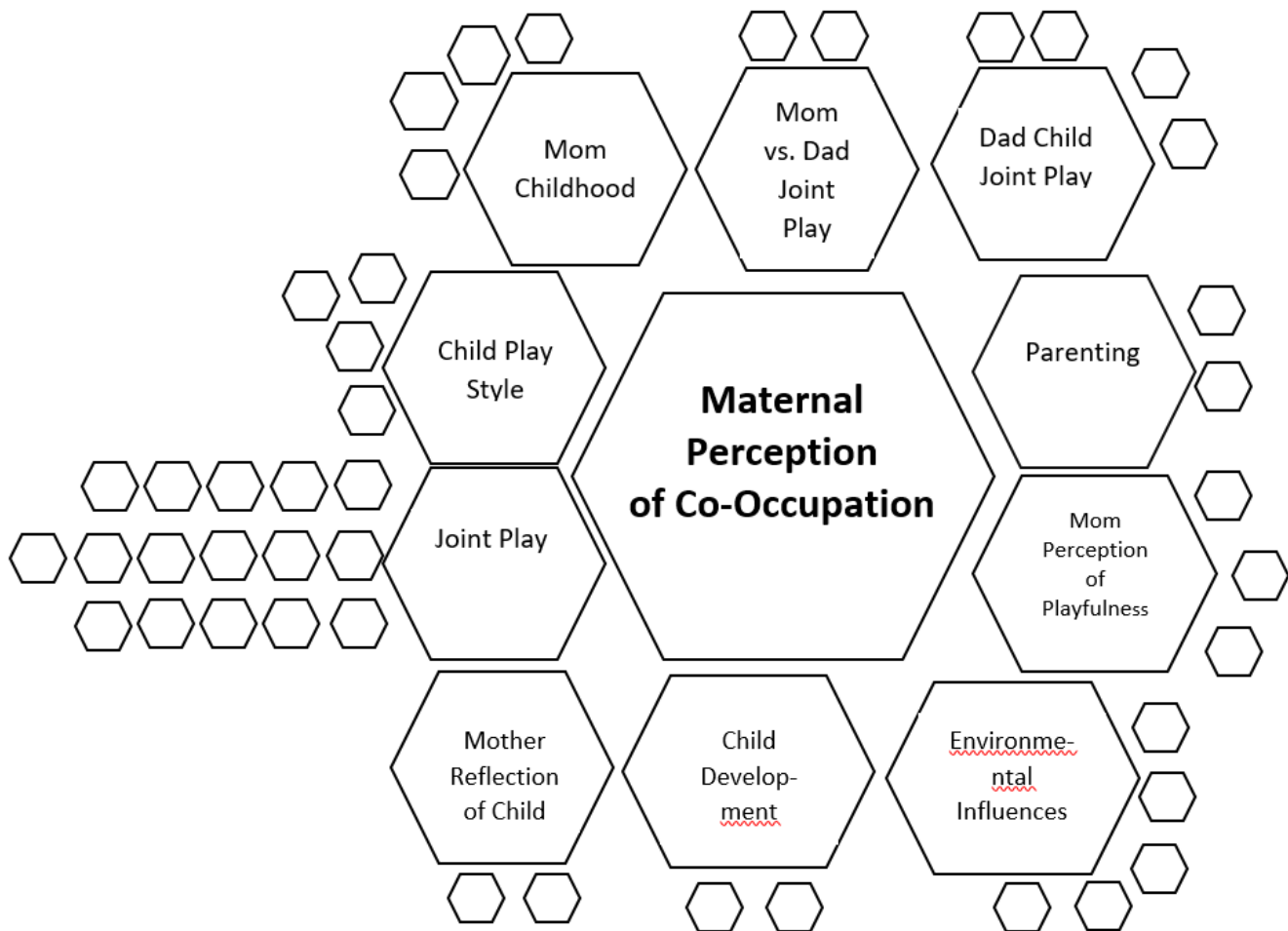


Figure 1. Maternal Perception of Co-Occupation: Joint Play.

**Table 4**

*Code Map*

Categories/Themes	Codes
Mom Perception of Playfulness	Joint play as a mom Mom as playful child Mom playful

Environmental Influences	Change in play: new sibling Child aware of being observed Child behavior in a different environment Mixed: usual and unusual aspect of play experience Mom play: past-cultural differences Mom profession and joint play
Child Play Style	Child play preferences Child play style Child's hobbies Gender differences in play
Father-Child Joint Play	Child-dad play Dad approach to joint play Dad play as child Dad playful
Joint Play	I had her toys out and basically gave her I had to bribe her first with an ice-pop It's me and like I'll say "when your sis Joint play Mom approach to joint play Mom feels need to improve her joint play Mom perception of what suits child Mom play preferences Mom reflection of experience Mom thoughts about child Mother-child bond So basically I decided to work on a puzzle Technology and play Unusual play Usual play Yes, as long as I'm there
Child Development	Child's developmental weakness Child's imaginary play level
Mom Childhood	Mom as a child compares to son Mom reflection on her childhood Mom as playful child Mom parents play not interactive Mom-play preference-past
Parenting	Limit setting Mom and dad parenting
Categories/Themes	Codes
Mother Reflection of Child	Mom feelings toward child Mom thoughts about child
Mother versus Father Joint Play	Mom vs. dad time for joint play Mom vs. joint play

## Discussion

This study sought to explore co-occupation as manifested in typically developing young children and their mothers joint play in their home environment. A mixed-methods design was used to deepen the researchers' understanding of the mothers' perspectives about their experiences playing with their children during the videotaped play session, as well as the mothers' overall views about their children's typical play. As expected, all of the mothers in this study were supportive of their children's play, as evident with scores ranging from 2.24 to 3 on the PCSYCP, as well as on the TOES. The children's ages varied, but they were found relatively playful. Overall, the total of child playfulness and mother's support did not correlate, but individual items of each scale did significantly correlate and provided us with a descriptive picture regarding the research question. The qualitative analysis provided insight into the perceptions of a subset of the participating mothers about the similarities and differences in joint play, their perceptions of their typical play with their children, as well as their views about how they support their children's play.

### **Co-Occupation: Mothers Support Children's Development Through Joint Play**

The PCSYCP is comprised of two scales: quality and frequency of maternal behavior as observed in joint play. The more frequently (e.g., whether a behavior appeared throughout the observed time, most of the time, or small portion of it) the mother supported the child as the child approached obstacles through negotiation, praise, or support in overcoming obstacles, the less playful the child scored. Providing constant praise was negatively associated with the child's playfulness, perhaps because the child became more sensitive to pleasing the mother. More overriding maternal behavior (e.g., intrusive behavior, over directedness and guidance), possibly helping the child too soon by overcoming obstacles for the child, was negatively associated with a lower level of playfulness behavior. It may be that children need parental support that translates into less direct help, with parents instead being supportively present as Winnicott proposed (1995, 1999).

Maternal support of a child's playfulness was examined for its quality attribute (e.g., behaviors were assessed for how attuned, sensible the support was). We found that the children with high scores on decision-making had mothers who supported their play for the process, as opposed for the end product, following the child's lead. It resonates with Aoki's et al. (2002) findings of the importance of reaching a dyadic balance between independence and dependence to promote a child's play. Maternal sensitivity and support of a child's attempts to lead, validating choices the child makes during joint play, picking up when the child initiates, were behaviors that associated with a child's higher playfulness behaviors. Other researchers also (Desmarais, 2006; Waldman-Levi, 2012) noted the importance of the aforementioned maternal supportive behaviors in joint play. As Nakano et al. (2007) reported, contingent communication bids between a mother and her infant are critical for a child's development in the dyadic context.

Examining co-occupation with a detailed observation analysis of maternal support of a child's playfulness resonates with Ainsworth's (1969) concept of "maternal sensitivity." The quality of the mother's interaction with her infant is probably the most important index of her sensitivity. "She picks him up when he seems to wish it, and puts him down when he wants to explore" (Ainsworth, 1969, 1-2). The multifaceted nature of the PCSYCP scale expands and builds on the maternal sensitivity by providing occupational therapists with an in-depth examination of how mothers support their children's playfulness. This may associate with their children's specific playful behaviors. In this study, the mothers who missed their young children's needs for emotional or physical support related to safety or

who had a delayed response to physical danger saw their children displaying less playful behaviors. In a similar way, maternal overprotection, such as a mother not letting a child get up, doing parts of a tasks for her child instead of letting the child explore, appeared to compromise her child's playfulness behavior as well. Morrissey and Brown (2009) reported that a caregiver has an essential role in shaping and promoting a child's play and development in the context of joint play. As in Lin and Yawkey's (2013) study, we infer that mothers' support of their children's use of objects in varied and creative ways, and their modifying play to support their children's decision-making, promotes children's continuous engagement in play.

In this study, the PCSYCP scale associated with the TOES items that assess caregiver support of a child's play. However, the PCSYCP expands on the TOES adult playmate (four) items, and thus provides occupational therapists with an in-depth assessment of co-occupation. Our findings suggest that occupational therapists working with families and young children might use the TOES caregiver items as a screening tool. If concerns arise from the TOES observation, then occupational therapists can further assess mother-child co-occupation in play and what barriers might exist with the PCSYCP scale.

### **Co-Occupation: Maternal Views of Joint Play and its Effects on a Child's Development**

The qualitative data analyses of a subset of parent interviews suggested the use of the research method of videotaping a 15-min sample of mother-child play in their home environment provided a window into typical mother-child play. The follow up interview gave important contextual features that deepened the researchers' understanding of what was observed, including the mothers' rationales for what occurred on that particular day. The interviews also helped the researchers consider how the mother and child's daily occupations and preferences influenced the observed play. For example, the stress of one mother's daily occupations of school and home care resulted in limited time to play with her child. This mother experienced the research condition as a positive, informative learning experience where she learned more about her daughter through the mother-child play in which she participated for this study. One mother reported that her working as an educator in early intervention affected her view of play and how she interacted with her daughter.

When considering the "Maternal Perception of Co-Occupation: Joint Play" apiary in light of occupational therapy's Standard of Practice, this framework deepens our understanding of what mothers of typically developing children think about joint play, and it may explain their behavior as well as their children's during joint play. The authors perceive joint play experience, as an apiary where the mother's past and present and personal and professional experiences, environmental aspects, perception of her spouse, and views of her child intertwine to promote what she thinks is most important for her child's growth. This study is the first to explore these perceptions and propose such a framework for occupational therapists working with children and families. In family and client-centered care it is essential to begin with listening to the family needs; the proposed framework can assist occupational therapists by directing their conversations with mothers and helping them attend to details that will assist them to unfold the co-occupation experience to better understand what play means to a specific dyad (Posatery, Schaaf, & Lomba-Hall, 2008).

The qualitative interviews presented questions in a gradual manner following the interviewee's pace, from distant to more close and intimate. This interview process allowed more personal views and perceptions to unfold and for the researchers to create a meaningful, rich, and coherent story of the co-occupation experience. The apiary framework "Maternal Perception of Co-Occupation: Joint Play" resonates with occupational therapy core conceptualizations (Law et al., 1990; Pickens & Pizur-



Barnekow, 2009), such as the person (e.g., mother's childhood play experience, playful tendencies), environment (e.g., effects of environmental aspects on a child's play, mother's profession, father-child play), and occupation (e.g., joint play, child development, play style). The mixed methods used in this study exemplify how mothers perceive themselves as more present in their child's life being the primary caretakers. They also showed more guidance and frequent involvement in joint play teaching and directing their child in play, which did not relate to their child being more playful. On the contrary, playful children were those whose mothers supported their independent engagement, allowing them to make decisions. It was the quality of maternal behaviors rather than its frequency; it was opposed to what mothers thought about their children's ability to play longer and more creatively.

### **Study Limitations**

This study has several limitations, including its small sample that compromise generalizability. A child's play was scored based on a single observation, and more observations might assist in validating results. In addition, the authors are aware that by correlating items of several scales in a small sample, there is a greater risk for increasing type I error; thus, the interpretation of the findings must be taken with caution. Future studies should include a larger sample and stratify it by the children's ages to further examine differences of typical play and to understand typical parenthood. The mixed-methods design could be expanded with qualitatively analyzing the video-recorded joint play in light of the interviews.

### **Conclusion and Practical Implications**

The current study identified certain co-occupation behaviors that may be associated with a child's playfulness. Children whose mothers supported their playfulness behavior exhibited more mischief behavior, positive affect, shared play, and gave clear cues to their mothers. This may suggest that when playing with their mothers, children need sensitive and attuned feedback that offers general guidance or cues to promote their independent engagement in play. Maternal behavior frequency is important to look at as well as its quality. High frequency of maternal behavior is not as essential as its quality when a child is playful. In order to provide family-centered services and further understand the co-occupants story, it is essential to follow up joint play with a focused, open-ended interview to add context to what was observed. Lastly, we suggest occupational therapists engage themselves in a reflective process about joint play and what it means for them as therapists, parents, and individuals.

### **Implications for Occupational Therapy Practice:**

- Occupational therapists working with families and young children should assess co-occupation and examine how each player contributes to the joint play experience by observing and analyzing joint play experiences.
- The quality of the support a parent or caregiver provides a child during joint play is important, but its quality is essential to promote a child's development.
- Occupational therapists can use the interview as an opportunity to discuss with parents how they view certain behaviors to promote joint play and a child's development.

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## Appendix A

*Associations Between Parent Support Frequency Scale and Child's Playfulness*

	PCSYCP-F								
	Actively supporting	Support process	Support overcome barriers	Support decision making	Support interacting with objects	Support negotiation	Consistent boundaries and rules	Overriding behavior	Provides praise
ToP									
Actively engaged intensity	.07	-.8	-.37*	-.24	.13	.23	.18	.01	-.12
Feels safe extent	-.12	-.12	-.15	-.31	.01	-.05	.09	.60**	-.09
Mischief extent, skill	.23; -.30	.00; -.09	-.09; .09	.00; .06	.37*; -.30	.07; -.51*	-.33; -.23	-.18; -.57*	-.18; -.42
Engages for the process extent	.04	-.14	.05	.10	-.06	.23	.36*	.35*	-.05
Pretends extent; skill	.11; .11	-.14; -.18	.32; -.40*	.51*; .08	.1; -.05	.13; .11	.11; -.03	.26; .07	.06; .00
Incorporate objects skill	.21*	-.16	-.13	.16	.04	-.01	.08	-.17	-.24
Engages in social play skill	-.05	-.37*	-.24	-.02	.02	-.01	.16	.08	-.47**
Support play of others skill	-.08	-.43*	-.02	.07	-.02	.01	.28	.22	-.36*
Initiate play skill	.25	-.08	-.41*	-.02	.19	.19	.03	.14	-.36*

Note. ToP = Test of Playfulness; PCSYCP-F = Parent/Caregiver Support of Child's Playfulness-frequency scale; \* $p < 0.05$ , \*\* $p < 0.01$ .

## Appendix B

*Associations Between Parent Support Frequency Scale and Child's Playfulness*

	PCSYCP-F			
	Supports process	Supports overcome barriers	Consistent boundaries and rules	Provides praise
ToP				
Share skill	-.39*	.03	.35*	-.38*
Gives cues extent, skill	-.35; -.36*	-.43*	.25; .16	-.28; -.11
Affect intensity	-.18	-.01	.45**	-.22

*Note.* ToP = Test of Playfulness; PCSYCP-F = Parent/Caregiver Support of Child's Playfulness- frequency scale; \* $p < 0.05$ , \*\* $p < 0.01$ .

## Appendix C

*Associations Between Parent Support Quality Scale and Child's Playfulness*

	PCSYCP-Q									
	Supports process	Supports decision making	Supports sense of safety	Supports transitions	Supports mischief	Supports pretends	Supports incorporate objects	Consistent boundaries and rules	Overriding behavior	Provides praise
ToP										
Decides extent	.28	.61**	.36*	.49**	.35*	.40*	.46**	.02	.04	-.03
Feels safe extent	-.20	.35*	-.18	.04	.25	.16	-.22	.37*	.09	.19
Modifies	.05	.13	.26	.24	.01	.12	.37*	.14	.17	-.35*
Pretends extent; skill	.02; .00	-.14; .08	.02; .17	-.11; .30	-.04; -.04	.40*; .08	.08; -.01	.12; .18	.11; .60**	-.41*; -.27
Incorporate objects skill	.17	.28	.19	.39*	-.08	.17	.40*	-.23	.25	-.37*
Negotiates	.01	.21	.19	.27	.11	.14	.37*	.24	.04	-.04
Social intensity	.38*	-.07	.10	.23	-.18	-.09	.07	.08	-.05	-.03

Note. ToP = Test of Playfulness; PCSYCP = Parent/Caregiver Support of Child's Playfulness; Q = quality scale; \* $p < 0.05$ , \*\* $p < 0.01$ .

## Appendix D

*Associations Between Parent Support Quality Scale and Child's Playfulness*

	PCSYCP-Q					
	Supports sense of safety	Supports modification	Supports transitions	Supports negotiation	Supports incorporate objects	Provides praise
ToP						
Initiate play skill	.15	.08	.44*	.04	.08	-.54*
Gives cues extent	.14	-.07	.08	.38*	.37*	.11
Affect intensity	.09	.40*	.34, p=.05	.05	.50**	.03

*Note.* ToP = Test of Playfulness; PCSYCP = Parent/Caregiver Support of Child's Playfulness-Q = quality scale; \* $p < 0.05$ , \*\* $p < 0.01$ .