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# **Predictors of Future Gendered Play Practices**

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Predictors of Future Gendered Play Practices

A Dissertation

Presented to the Faculty of the

Department of Psychology

West Chester University

West Chester, Pennsylvania

In Partial Fulfillment of the Requirements for

the Degree of

Doctor of Psychology

By

Caroline E. Guzi

June 2022

# Dedication

For my grandfather—because you helped me "hang tough." Thank you for knowing all along what I have come to know about myself. I miss you.

#### Acknowledgements

If there's anything I've learned over the past four years, it's that it takes a village to navigate graduate school. I am so fortunate to have had the PsyD program at West Chester University be my village for the last five years. As I reflect on my time in the program and all it has given me, I am full of gratitude to have had the opportunity to learn from the phenomenal faculty and be part of this new program.

My dissertation chair, Dr. Stevie Grassetti, deserves endless credit and approximately ten million dollars for taking the time to decipher my ramblings and helping me transform them into a real research idea. In addition to serving as my chair, Dr. Grassetti has served as a mentor all aspects of work and life. She has created a community in RAISE Lab that I am proud to be a part of and has given me endless opportunities to evolve into the researcher and clinician I am today. Thank you for celebrating every little victory, no matter how small, for never failing to tell me that things would be okay, and for reminding me that doing the "next right thing" is all that is needed.

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There is something incredibly special about being a member of a doctoral cohort made up entirely of women. My colleagues push me to be a better clinician and a better person, and I am in constant awe of their brilliance as clinicians and researchers. I cannot wait to see all the mountains they will move, the glass ceilings they will shatter, and the lives they will change profoundly and for the better.

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Finally, to Travis and Percy: My gratitude—for your patience, support, understanding, hugs, and grilled cheese sandwiches with an abundance of French fries—is endless. I can't wait for what comes next for us.

#### Abstract

Gendered play is defined as the socialization of children to expectations of culturally determined gender roles via the mechanism of play. This study tested hypothesized links between undergraduate students' childhood experiences and current beliefs to determine predictors of their future plans for gendered play as parents. Results indicated that men and women recall experiences of gendered play during their childhoods, consistent with past research. Most men and women did not plan to engage in gendered play with their own children in the future. Past play with toys stereotyped for girls was the strongest predictor of women's plans for gendered play with their future children. Similarly, past experiences with toys stereotyped for boys was the strongest predictor of men's plans for gendered play with their future children. Identification with feminist values was not a significant predictor of future gendered play practices. Implications for parent-child relationships are discussed, as are clinical implications for individual and family therapy. Future research should focus on intergenerational transmission of gender socialization and the inclusion of individuals of all gender identities.

Keywords: play, gender, feminism

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## Introduction

Psychology as a field has focused on gender as an important aspect of identity that impacts the way individuals interact with their surrounding environment, as well as how they are viewed by society. Indeed, the American Psychological Association's (2018) "Guidelines for Psychological Practice with Girls and Women" and "Guidelines for Psychological Practice with Boys and Men" is an acknowledgement by the field of psychology that people are socialized differently based upon their genders and that factors relevant to their psychological treatment may be different because of this socialization. Rigid gender role expectations can be problematic for both individuals and society, as they restrict opportunities and aspects of individuality and personality (Jones & White, 2016). Furthermore, gender roles can have an impact on individuals' mental health and functioning (Kleiman & Liu, 2013; Klineberg et al., 2006). To understand how to best promote the development of this important facet of identity, it is important to understand the social processes by which gender identity develops and evolves throughout childhood and what impact child gender socialization might have across the lifespan.

Gender roles are defined as the behaviors learned by a person that externally define their internalized gender identity (APA Dictionary of Psychology, n.d.). These roles are often deemed appropriate for individuals' biologically-assigned sex by their cultural context (Dictionary.com, n.d.). The process by which this learning occurs is referred to as gender socialization. Gender socialization occurs through many mechanisms throughout the lifespan, beginning in infancy, and has been studied in a multitude of ways.

One such mechanism is that of play, which serves multiple purposes. The primary purpose of play is to engage in activities alone or with others for enjoyment (APA Dictionary of Psychology, n.d.). However, play has countless benefits for children and adults alike. In children, play promotes learning (Golinkoff et al., 2006), as well as healthy cognitive, emotional, and social development (Barnett, 2018; Zigler & Bishop-Josef, 2006). From a cognitive perspective, play can assist children with the development of a variety of skills including problem-solving (Ahmad et al., 2016), goal setting (Bergen, 2002), and understanding the mental states of others (theory of mind; Goswami & Bryant, 2007). Play can help children explore and manage or regulate their emotions and behavior (Zigler & Bishop-Josef, 2006). From a social standpoint, play helps children make sense of society's expectations for them (Piaget, 1952) in a process known as *anticipatory socialization*. Thus, anticipatory socialization of gender roles can occur, in part, through play (Maccoby, 1988). Consequently, *gendered play* is defined as the socialization of children to the expectations of societal gender roles via the mechanism of play.

Gendered play us evident throughout development. Beginning from an early age, children play differently based upon their gender (Jacklin et al., 1984; LaFreniere, 2011; Serbin et al., 2010). The ways in which girls and boys play are often reflective of the traditional gender roles they are expected to take on when they grow up (Wienclaw, 2011).

When girls typically engage in play, they interact in ways that are more realistic and consistent with what is observed in adult society (Maccoby, 1988). For instance, in Western cultures that expect women to assume a "caregiver" role (Thornton & Freedman, 1979), girls engage in pretend play as caregivers than boys. They may play with dolls or a toy kitchen. In this way, they are mimicking the roles society will eventually expect of them via play (Maccoby, 1988). Girls' play is often goal-directed as well. While engaged in pretend play, girls tend to agree upon a script or storyline and act it out, finishing the story in its entirety

before play concludes (Edwards et al., 2001). Girls' play has also been characterized as quieter than boys' (Finegan et al., 1991). Overall, girls' play is oriented toward emotion and expression (Wienclaw, 2011).

In contrast, boys engage in hierarchical play that is more fantasy-based and focused on power dynamics and dominance. For instance, boys might pretend to be superheroes or play "cops and robbers" (Maccoby, 1988). When compared to girls, boys are more likely to engage in "rough and tumble" play," which has been hypothesized to provide a framework for boys' acquisition of emotion regulation skills, particularly those related to anger and aggression (Jacklin et al., 1984). Boys' play is generally more competitive, physical, athletic, and louder than girls' play (Edwards et al., 2001; Finegan et al., 1991). In a way that is similar to the function of girls' play, boys' louder, more competitive play behaviors are reinforced by traditional societal expectations for boys and men (Jacklin et al., 1984). Furthermore, boys' play is often organized around obtaining goals (Wienclaw, 2011).

There is evidence that children choose different toys and have different toy preferences based upon their gender. In a study by Francis (2010), parents of 68 preschoolaged children (3-5 years old) answered questions about their children's toy and play preferences, as well as the movies their children preferred. The study found that girls preferred "cuddly toys" (such as stuffed animals) and dolls while boys preferred sports equipment, action figures, and toy cars (Francis, 2010).

Observational research also supports the gendered play phenomenon. Even without the immediate presence of social influences (such as their parents or peers), children are more likely to engage in play behaviors typed for their gender (Boe & Woods, 2018; Todd et al., 2018). Evidence of gendered play practices is present across various types of play, including individual play, play with peers or groups (cooperative play), art (Bosacki et al., 2008), and fantasy or imaginary play (Libby & Aries, 1989). These differences in the ways children play based upon gender are evident throughout the lifespan and impact the ways in which individuals are socialized for future roles. Since the topic of play is so broad and continues throughout development, this research will focus on play through early childhood.

# **Gendered Play in Infancy**

When playing independently, even very young children typically prefer to play with toys stereotyped for their own gender (Edwards et al., 2001; O'Brien & Huston, 1984; Todd et al., 1986). A study by Boe and Woods (2018) revealed that children can exhibit gendertyped toy preferences independent from social influences such as their parents from as early as 12 and a half months of age. In the study, 51 five-month-old children engaged in a forcedchoice task during which it was determined whether infants paid more attention to masculine- or feminine-typed toys (a truck and a doll, respectively). Additionally, 60 12month-old children engaged in either a forced-choice or selection task that required children to choose a masculine- or feminine-typed toy over several trials. All children were also observed playing with their parents, who were told to encourage their children to play with either a masculine- or feminine-typed toy and discourage play with the other toy. Ultimately, the researchers found that the five-month-old infants did not display gendered toy preferences, but that 12-month-old boys displayed more interest in masculine-typed toys. The 12-month-old girls did not show any preference for toys based on their gender type (Boe & Woods, 2018). Girls in the study had equal amounts of toys classified as feminine and masculine at home, whereas the boys in the study had more toys classified as masculine than feminine. Therefore, though the parents' influence on their infants' play in the study was

controlled, the environment does have an impact on infants' engagement in gendered play, and children's environment is created in part by the parents (Boe & Woods, 2018).

When playing alone, children have been shown to gravitate toward toys that are gender-typed. In a study by Todd and colleagues (1986), 101 children between the ages of nine months and two and a half years were given a selection of toys that were gender-typed for boys (cars and trucks, a blue teddy bear) and girls (dolls, cooking sets, a pink teddy bear). The toys were arranged in a semi-circle and each was located at an equal distance from the child. In order to best replicate the children's typical play environment, the study took place at the children's daycare center in their usual classrooms. Results revealed that, regardless of age, girls and boys tended to play with the toys typed for their own gender more than they played with toys stereotyped for the other gender (Todd et al., 1986). A recent meta-analysis of gender-typed toy preferences yielded similar results: overall, boys and girls play with toys typed for their own gender, regardless of their age and even without parental or other societal influences (Todd et al., 2018).

## **Gendered Play During the Preschool Years**

Once children reach preschool age, their sphere of influence changes. In addition to the influence of their parents, children receive messages about appropriate gendered behavior from teachers (Chapman, 2016) and peers (Langlois & Downs, 1980). These other sources typically reinforce children's gendered play behaviors that were previously instilled by their parents.

Preschool-aged children's fantasies are frequently gendered in nature. In a study by Libby and Aries (1989), 44 preschool-aged children were asked to listen to the beginnings of stories and then make up endings to the stories. Results revealed that girls and boys generally told stories that involved characters of their own sex rather than the opposite sex. This task also revealed thematic content: girls focused more on caretaking of others in their narratives, whereas boys' narratives focused more on aggression (Libby & Aries, 1989). These findings about children's fantasy play are similar to children's observed play behaviors: girls tend to engage in play behaviors that are goal-driven and involve caretaking roles, while boys tend to engage in aggressive and hierarchical play (Maccoby, 1988). This implies that, even in the absence of social interactions with others, children fantasize about gender-typed behavior.

Research on children engaging in play with their peers also suggests preferences for gendered play, particularly when children play with their same-sex peers. By the age of three, children show preference for playing with members of their own sex (Maccoby, 1990). Children who engage in play with their same-sex peers engage in gendered play more frequently (Martin & Fabes, 2001). Fabes and colleagues (2003) observed 203 preschool and kindergarten children playing with same-sex peers, opposite-sex peers, and in mixed-sex groups over a period of seven months. The observations were then coded for gender-typed activities. Results indicated that children generally preferred to play with their same-sex peers. Boys were more likely than girls to engage in same-sex group play, an environment which fosters conflict and competition (Fabes et al., 2003), qualities that are typical for boys' play behaviors, regardless of the environment (Maccoby, 1988; Carter, 2014). When a girl was observed playing in a group of boys, she tended to mimic the boys' behaviors and interactions; her behaviors were more likely to be coded as "active" and "forceful." Similarly, when a boy was observed playing in a group of all girls, he was observed engaging in less active and more "cooperative" behaviors; such behaviors are more stereotypical of girls (Fabes et al., 2003). However, this did not occur when a boy-girl dyad or a group of

boys and girls played together. Generally, when mixed-sex groups of children played together, the activities they engaged in were less gender-stereotyped. Overall, boys engaged in more gender-stereotyped play activities than girls, and when children played in mixedgender groups, the play was more likely to resemble boys' play (Fabes et al., 2003). These results imply that boys' play is generally less flexible and more gendered in nature, while girls may play more flexibly depending upon the gender of their playmates.

Overall, young children tend to prefer to interact and play with same-sex peers, either in dyads or groups (Fabes et al., 2003), a phenomenon that may relate to play preferences. A study by Lindsey and Mize (2001) examined same-sex dyads and their play practices. In the study, children were observed playing with a friend of the same sex. The types of play were then categorized and coded into six categories, including pretend play, physical play, instructive play, and others. In these play interactions, preschool-aged girls engaged in more pretend interactions while preschool-aged boys engaged in physical interactions (Lindsey & Mize, 2001), findings that are consistent with other research on gender-typed play practices (Maccoby, 1988).

### **How Does Gendered Play Develop?**

The development of gendered play may be attributed to both proximal and distal factors ranging from interpersonal interactions to societal factors. Gender roles are present in many aspects of children's daily lives. For example, there is evidence that shows people associate gender with different concepts or symbols, such as colors (such as pink and blue to represent femininity and masculinity; Cunningham & Macrae, 2011). Marketing and advertisements targeted toward children also reflect traditional gender norms (Kahlenberg & Hein, 2010). Gender roles are clearly engrained in culture and society in a way that makes

them impossible to avoid. In addition to societal factors, which contribute to the development of symbols that influence gender roles and expectations, children learn to engage in gendered play from multiple sources, including their parents, teachers, and peers. Because parents are typically the main source of socialization for the first few years of a child's life, the way in which children are socialized to play by their parents in particular is the focus of this research. Parents' interactions with their children instill and reinforce gendered play practices. These interactions impact children's play behaviors (Wood et al., 2002) and, therefore, the ways they view themselves, the world, and their roles. It may be that parents impact gendered play by socializing their children in various ways, including modeling appropriate gendered play behaviors (Bandura, 1971), directly instructing children to play with toys and engage in activities stereotyped for their gender, and reinforcing gender-typed behaviors (Mischel, 1966; Bandura, 1971).

# Modeling

Social learning theory suggests that parents are salient models of behavior. Children may learn about gender norms by observing their parents' actions and then mimicking them (Bandura, 1971). For example, a study by Caldera and colleagues (1989) demonstrated that although many parents do not explicitly promote or discourage gendered play, they do model gendered socialization practices and subtly encourage gendered interactions. They do this by giving their children nonverbal cues about their preferences and interacting with their children differently depending upon the available toys. In the study, 40 children ages 18-23 months and their parents were observed in videotaped play interactions. An assortment of toys was provided and then categorized into three groups: masculine (trucks, blocks), feminine (dolls, a kitchen set), and gender-neutral (puzzles) categories. To gauge parents'

response to same- and opposite-sex toys, researchers filmed the parents opening different toy boxes and offering the toys to their children. The parents' initial reactions were rated as "very excited," "mildly excited," or "not excited." In order to prevent rater bias, the reviewer who rated the parents' initial reactions could not see whether the toy was masculine or feminine. Parents were rated as appearing more excited when they saw a toy that was gender-typed for the gender of their child (e.g., their son was given a truck). Parents generally showed more enthusiasm for toys that matched their own gender (e.g., mothers showed more enthusiasm for feminine toys) and therefore served as models of gendered play for their children (Caldera et al., 1989).

These results provide evidence that parents' tendencies to encourage gendered play are subtle and likely engrained such that the parents are unaware of their own implicit biases toward gendered socialization and interactions. Additional research findings indicate that parents' *behaviors* are a better predictor of children's attitudes toward gender roles in the future than parents' *beliefs* about gender (Halpern & Perry-Jenkins, 2016), a conclusion that supports principles of social learning theory (Bandura, 1971).

# **Direct Instructions**

Parents also provide direct instruction to their children to teach them how to behave in socially appropriate ways. In the case of gendered play, mothers and fathers will instruct their children how to play, both directly and indirectly.

Parents directly instruct their children how to play, at least in part, in the ways in which they initiate play with their children. The ways in which parents initiate play with their children vary by the child's gender. Lindsey and Mize (2001) examined the relationship between child gender and parental initiation of play sessions. When interacting with girls, both mothers and fathers were more likely to initiate play in "polite" ways: by asking their daughters' permission to play in a certain way. On the other hand, parents were more likely to play with their sons more assertively and directly, giving commands such as "let's wrestle" to initiate play (Lindsey & Mize, 2001).

Indirectly, parents instruct their children how to play by providing their children toys to play with that correspond to their children's gender (Jacklin et al., 1984; Snow et al., 1983). A study by Snow and colleagues (1983) asked fathers to interact with their 12-monthold sons and daughters. They found that fathers gave different toys to their children to play with based upon the gender of the child. More specifically, fathers were significantly less likely to give boys dolls and were more likely to give girls both dolls and trucks (Snow et al., 1983).

# **Reinforcing Gender Norms**

Finally, providing positive and negative reinforcement and consequences in response to same- and opposite- gender-typed behaviors also shapes the way in which children behave and engage in play (Mischel, 1966; Bandura, 1971). Research indicates that parents provide their children with positive reinforcement, or praise, when children engage in gendered play. In a study by Langlois and Downs (1980), 48 preschoolers and their mothers in a nursery school setting were told to play as they would at home. The mother-child interactions were videotaped and coded for reward and punishment of gender-appropriate behavior. The nursery school classroom had toys stereotyped for males (an army playset, a gas station playset with cars, and cowboy costumes with guns) and females (a dollhouse, a toy kitchen, and feminine dress-up costumes). Mothers were more likely to praise their children when they engaged in gendered play (Langlois & Downs, 1980). This study was replicated in a similar manner to examine fathers' interactions with their children. Mothers were more likely to reward or provide reinforcement (through praise, physical affection, or imitation, for example) when their children engaged in gendered play. Fathers utilized both reinforcement of gendered play practices and punishment (such as verbally ridiculing or ignoring a child or withdrawing from play interactions) of oppositegender play practices (Langlois & Downs, 1980). Both methods impact the ways in which children play; however, fathers' use of both punishment and reinforcement was noted to be significant and perhaps an indication that fathers are more responsible for the process of gender socialization.

#### **Factors Predicting Gendered Play**

The phenomenon of gendered play has been supported through the multiple studies that were previously reviewed. In general, parents play with their daughters and sons differently. Yet parents vary in the extent to which they engage in gendered play with their children. Little is known about other factors that predict parents' engagement in high levels of gendered play with their children. As mentioned previously, it may be that an adult's past experiences with gendered play as children is a relevant factor for whether said individual encourages their own child to engage in gendered play in the future. Several additional factors, described below, may also serve as predictors of gendered play plans.

# **Parent Gender**

Parents' gender also has been found to impact the way in which they play with their children. In a study by Jacklin and colleagues (1984), researchers observed 54 three-year-olds playing with their mothers and fathers with both gender-neutral and gendered toys. Both mothers and fathers influenced their children's toy choices in that they were likely to offer

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toys stereotyped for girls to their daughters and toys stereotyped for boys to their sons. Mothers were more likely to encourage masculine and feminine play equally in their sons. Interestingly, mothers-daughter pairs mainly engaged in play with toys and activities stereotyped for girls (Jacklin et al., 1984). Conversely, fathers encouraged and modeled gendered play behaviors with both their daughters and their sons. Fathers were more likely to initiate masculine play interactions with their sons and follow the lead of their daughters when they initiated feminine play practices. This finding aligns with Langlois and Downs' (1980) results, which indicated that fathers' use of punishment of cross-gendered play and reinforcement of gendered play behaviors meant that fathers were responsible for traditional gender socialization. These results, if replicated, may imply that fathers are the primary source of socializing gendered behaviors via play in boys, while fathers and mothers both socialize gendered behaviors in daughters.

# Perceptions of Past Experiences with Gendered Play

The primacy effect suggests that information encountered first is the most salient over time. As stated previously, gender socialization begins in infancy, and parents are often the primary source of direct gender socialization (via modeling, direct instruction, and reinforcing gendered behavior) prior to a child starting school. Therefore, it is reasonable to assume that experiences with gendered play, and the resulting gender socialization, may be engrained from a young age.

Additionally, gender socialization is present not only at home, but is also reinforced by other individuals and society at large over time. Because it is so engrained in individuals' lives and in society, it may be that these behaviors are internalized, which may make them difficult to unlearn and change. Furthermore, it is well-documented that adults reference their own childhood experiences when making decisions about how to interact with and parent their own children (Conger et al., 2009; Madden et al., 2015; Simons et al., 1992). As such, individuals are primed to behave in certain ways based upon their gender, and because of the pervasiveness of gender socialization, may be more likely to encourage their own children to behave a certain way; that is, how they themselves were encouraged to play in the past (in a way that was stereotyped for their gender). Consequently, gender socialization may be passed down from one generation to the next through the mechanism of play. An individual's experiences with gendered play in their past, during childhood, is likely a relevant and significant factor in future decision-making.

#### **Contemporary Views on Parental Gender Roles, as Measured by Feminist Values**

The increase in the number of women working outside of the home (Bureau of Labor Statistics, 2018; Cabrera et al., 2000; Thornton & Freedman, 1979) has led to changes in some family structures. In two-parent heterosexual households, increased rates of maternal employment have led to fathers being responsible for more childcare (Cabrera et al., 2000). Reflective of these changes are time diary studies that indicate that men's time spent on childrearing and housework steadily increased over the second half of the twentieth century and the early twenty-first century (Bianchi, 2011).

However, despite the increase in men's involvement in childcare and housework in recent years, women still engage in the majority of the childcare and housework in the home, even though more women than ever work outside of the home (Livingston & Parker, 2019). The recent coronavirus pandemic illustrates this point in that it has significantly impacted parenting and childrearing. Although both men and women spent increased time with their children during the pandemic-related lockdowns in 2020, mothers' lives were impacted more

in that they spent more additional time with their children than did fathers. Women also took on the majority of education responsibilities for their children during the pandemic (Margaria 2021; Sevilla & Smith, 2020). For women, these responsibilities were associated with working fewer hours and an increased risk of job loss or choosing to leave the labor force. Men's employment, on the other hand, was not impacted (Petts et al., 2020). However, while women spent more time on childcare during the pandemic, men's time spent with their children during the pandemic also increased (Margaria, 2021). Men's additional involvement in childcare during the pandemic may be indicative of a very gradual shift toward more gender equality in parenting (Margaria, 2021).

As familial roles have evolved, the endorsement of feminist values has continuously increased over time (YouGov, 2018). Feminism is the movement focused on addressing systemic gender inequity that emphasizes equal rights for people of all genders. More women than ever before identify as feminists (Barroso, 2020). Furthermore, a majority of both men and women support the principle of gender equality, even if they do not identify explicitly as feminists (Minkin, 2020). It may be that parenting practices will shift to directly reflect these changes in gender roles, increase in gender equality, and shifts in caregiving responsibilities. As a result, gendered play practices could potentially decrease due to society's shifting gender roles. For instance, although girls have historically been taught to play in ways that prepare them for future childrearing and homemaking (Thornton & Freedman, 1979; Maccoby, 1988), it may be necessary for boys to also have those skills in the future, and gender socialization through play could potentially change to reflect this need. Additionally, because the feminist movement promotes equality of people of all genders, higher endorsement of feminist views may predict lower levels of gendered play behaviors.

# The Current Study

This study has two purposes. First, it aims to add to the literature about the phenomenon of gendered play. It is important to understand whether the gendered play phenomenon is still occurring within the current cultural context, as this may impact whether gendered play will continue with new generations coming of age and considering becoming parents in the future. Second, this study aims to understand which of the following factors predicts high levels of plans for gendered play in young adults: participants' gender, gender of an imagined future child, identification with feminist values, or participants' perceptions of past play experiences in their own childhoods.

# Question 1

Do young adult women and men differ in their accounts of past experiences with gendered play?

# Hypothesis 1a

I predict that young men will report more frequent past experiences of play with toys stereotyped for boys than will college-aged women.

# Hypothesis 1b

I predict that college-aged women will report more frequent past experiences of play with toys stereotyped for girls than will college-aged men.

# Question 2

Do college-aged women and men differ in their current endorsement of feminist values?

# Hypothesis 2

I hypothesize that college-aged women and men will differ in their current endorsement of feminist values such that college-aged women will be more likely to endorse feminist values than college-aged men.

# Question 3

Do college-aged women and men differ in their plans for future play for their children?

## Hypothesis 3

I predict that college-aged women and men differ in their plans for future play for their children such that college-aged women will endorse more flexibility around play than college-aged men.

# Question 4

What is the strongest predictor of college-aged women's future play style with their future children as it relates to gender socialization: past play experiences, gender of a hypothetical child, or feminist values?

# Hypothesis 4

I predict that past play experiences will be the strongest predictor of college-aged women's future play practices.

This hypothesis is based upon the primacy effect, which suggests that individuals are more likely to recall information learned first, rather than most recently. If the most salient events in an individual's mind are what was instilled in them consistently as children, then it may be that participants are likely to raise their future children in the same way they were raised. Additionally, the pervasiveness of gender socialization and gender stereotypes in society may be a relevant factor.

# Question 5

What is the strongest predictor of college-aged men's future play style with their future children as it relates to gender socialization: past play experiences, gender of a hypothetical child, or feminist values?

# Hypothesis 5

I predict that past play experiences will be the strongest predictor of college-aged men's future play practices.

Again, if the primacy effect is influential in this case, then college-aged men's past experiences during their childhoods will be the strongest predictor of how they believe they will behave with their own children in the future. The fact that gender socialization is so pervasive throughout society is relevant as well. Past research notes that the gendered play is largely executed by fathers (Langlois & Downs, 1980). Should this hypothesis be supported, it will be consistent with past research which suggests that men are the primary source of gender socialization.

## Methods

## Design

This study is a quantitative, cross-sectional survey study in which participants recounted past experiences and plans for the future.

# **Participants**

Participants in this study were n = 403 undergraduate students enrolled in either Introductory Psychology (PSY100) or Multicultural Psychology (PSY120) at West Chester University of Pennsylvania. This sample is an ideal one in which to explore prospective parents' plans for parenthood. Many college students enrolled in introductory courses are living away from their parents or families of origin for the first time. They are reflecting on their familial experiences, developing their own viewpoints, and considering plans for their future lifestyle and family of choice. Therefore, conducting this research at this developmental stage allows for a better understanding of how different factors influence future gendered play plans.

The exclusionary criteria for this study were parent status, age, and certain gender identities. Since the primary aim of the study was to investigate *anticipated* gendered parenting behaviors, current parents were excluded from participating. Because the study hoped to capture attitudes toward gendered play at the specific developmental stage mentioned above, anyone over the age of 25 was excluded from analyses. Finally, only those who self-identified as male or female were included in the study due to small sample size for other gender identities.

#### Procedure

Participants completed an online questionnaire using Qualtrics software to fulfill a research requirement for their respective introductory-level class. After completing the study, students were awarded research credit for their respective course. The questionnaire took less than one hour to complete and assessed multiple constructs, including gender, attitudes toward gendered play, and current identification with feminist values.

This study was reviewed and approved by West Chester University's Institutional Review Board through the Office of Research and Sponsored Programs and was conducted in accordance with IRB protocol. Participants reviewed and signed an electronic consent form prior to seeing the Qualtrics survey. A copy of the approved protocol is located in Appendix A, and the consent form that was utilized can be found in Appendix B of this document.

# Randomization

To assess plans for gendered play, participants were randomized into the "future son" or "future daughter" condition using the "Randomizer" tool on Qualtrics. The Randomizer feature was set up such that the "future son" and "future daughter" conditions were evenly presented to the sample.

## Measures

### Gender

A demographics survey created for the purpose of this study (see Appendix B) asked participants to report their gender identity using an open-response format. Responses were then coded into *male*, *female*, *nonbinary*, and *other* (for example, transgender or agender). However, no participants identified as a gender under than male or female. Undergraduate research assistants coded the responses, and the responses were double-checked by a graduate research assistant.

#### Past Experiences with Gendered Play

To measure participants' childhood experiences with gendered play, college-aged men and women completed the eight-item *toys and activities stereotyped for girls* and the seven-item *toys and activities stereotyped for boys* subscales of the Child Gender Socialization Scale (CGSS; Blakemore & Hill, 2008). The original 7 item *toys and activities stereotyped for boys* subscale was modified slightly for analyses. One item of this subscale asks about whether participants approve of children playing with toy guns. This item was eliminated because of the potential biases and confounds associated with the question. For instance, some parents might not want their children playing with toy guns for a variety of moral and social reasons, regardless of the gender of the child(ren) in question. A study by Cheng and colleagues (2003) confirms this: 67% of surveyed parents thought that it was never acceptable for children to play with toy guns. Additionally, mean scores of this subscale were significantly different when this item was excluded, indicating that the item about a toy gun was significantly impacting the subscale. The modified, six-item version of the *toys and activities stereotyped for boys* subscale was utilized in all analyses.

College-aged men and women were asked to complete the above subscales of the CGSS and reflect on their past experiences growing up. They were further instructed to reflect on their past experiences from when they were six years old. Questions on the CGSS were modified to reflect past experiences; for example, the Likert-scale statement, "Rate how you feel about your son/daughter playing football" was modified to read "Rate how you believe your parents felt about you playing football as a child." Participants rated the statements on a scale from one to five, with one indicating they believed their parents felt "very negatively" and five indicating they believed their parents felt "very positively" about the toy or activity in question (see Appendices E and F for CGSS items). Scores were averaged together to yield a subscale score that ranged from one to five.

Both the *toys and activities stereotyped for* boys and the *toys and activities stereotyped for* girls subscales have appropriate psychometric properties, with Cronbach's alpha ranging from .82-.89 for the *toys and activities stereotyped for boys* subscale and .93-.95 for the *toys and activities stereotyped for girls* subscale (Blakemore & Hill, 2008).

The *toys and activities stereotyped for girls* subscale consisted of eight items. The modified *toys and activities stereotyped for boys* subscale consisted of six items. Each individual item was rated on a scale of one (participants view that toy or activity "very negatively") to five (participants view the toy or activity in question "very positively"). Both subscales were scored by averaging the ratings of all items on each subscale, resulting in a final score for each subscale that ranged from one to five.

#### Plans for Future Gendered Play

Participants reported on their future plans for engaging in gendered play by completing a modified version of the CGSS. Participants were randomly assigned to a "future son" or "future daughter" condition and were asked to imagine how they would parent either a male or female six-year-old child in the future –this age was selected as an age at which parents still have significant influence on their children's socialization, before peers (Langlois & Downs, 1980), teachers (Chapman, 2016), and other community sources (Karsten, 2003) begin to have a more significant impact. The CGSS was modified once again in order for participants to complete this task. For example, the Likert-scale statement "Rate how you feel about your son/daughter playing football" was changed to read, "Rate how you believe you would feel about your son/daughter playing football" in order to reflect future gendered parenting behaviors (Blakemore & Hill, 2008). Just as before, participants were asked to rate these statements on a scale of one to five. A rating of one was indicative of participants feeling "very negatively" about their hypothetical son or daughter engaging in a specific activity or playing with a specific toy, while a rating of five indicated that participants felt "very positively" about their hypothetical child playing with the toy in question. Ratings were averaged together to yield a subscale score ranging from one to five.

Reliability analyses yielded acceptable alpha levels for both scales; see Table 1 and Table 2 for figures. The *toys and activities stereotyped for boys* subscale resulted in alpha levels of .80 for the future son condition and .90 for the future daughter condition with the removal of the toy gun item. Reliability for the *toys and activities stereotyped for girls* was similarly acceptable for both conditions (future son  $\alpha$ =.91; future daughter  $\alpha$ =.96).

*Dichotomization into Future Gendered Play Groups* Because understanding predictors of high levels of gendered play was of interest to the current study, we used participants' plans for future gendered play scale scores to categorize them into two groups--"egalitarian play" group (n=109 men; n=207 women) and "gendered play" group (n= 24 men; n=35 women).

A series of steps was followed to create these groups. First, a "future gendered play" score was created for participant based on their randomization group. For participants who imagined a daughter (n = 134 women; n = 65 men), the future gendered play variable was calculated by subtracting the *toys and activities stereotyped for boys* subscale score from the *toys and activities stereotyped for girls* subscale score. For participants who imagined a son

(n = 128 women; n = 74 men), the *toys and activities stereotyped for girls* score was subtracted from the *toys and activities stereotyped for boys* score. Higher positive scores indicated a greater endorsement of "future gendered play" plans. More specifically, positive scores for participants imagining a daughter indicated that they were likely to encourage their daughter to play with more toys stereotyped for girls than boys. Positive scores for participants imagining a son meant that they were more likely to encourage their son to play with toys stereotyped for boys than girls. Interestingly, some scores were negative. For men and women imagining a daughter, a negative future gendered play score meant they were likely to encourage their daughter to play with more toys stereotyped for boys than toys stereotyped for girls. For men and women imagining a son, a negative future gendered play score denoted a greater likelihood of encouraging their sons to play with more toys stereotyped for boys than toys stereotyped for girls.

Future gendered play scores for women imagining a daughter ranged from -.50 to 2.38, while scores for women imagining a son ranged from -3.33 to 2.80. Future gendered play scores for men imagining a daughter ranged from -.62 to 2.71, while scores for those men who imagined sons ranged from -3.00 to 3.50.

A median split was utilized to create the "Future Gendered Play" categorical variable from the continuous data of the CGSS. Median scores were calculated for both women and men., Data were trichotomized based upon the standard deviations for men and women. Those who were within one standard deviation of the median (median=.00, SD=.77 for female participants; median=.38, SD=.76 for male participants) were classified as "egalitarian," meaning their play was not significantly stereotyped for the gender of the imagined child. For example, participants classified as egalitarian did not require a hypothetical future daughter to only play with toys stereotyped for girls, or to play *more* with toys stereotyped for girls. Instead, egalitarian participants encouraged their hypothetical future children to play with both toys stereotyped for boys and toys stereotyped for girls roughly equally. Participants whose scores were one standard deviation above the median or more were classified as encouraging "gendered play," meaning that they were likely to encourage a future child to engage in play stereotyped for their gender.

A very small percentage of participants' responses fell one standard deviation below the median (males: n=6, 4.3%; females: n=20, 7.6%). Participants who were not in either of these categories were eliminated as outliers. More specifically, participants who encouraged their hypothetical future child to play solely with toys stereotyped for the other gender were eliminated from the data analyses for Question 4 and Question 5. Summaries of these groups can be found in Table 5.

# Feminist Values

Participants completed the 33-item Feminist Identity Composite (FIC; Fischer et al., 2000) to report the extent to which they agree with feminist values. The FIC is a psychometrically optimized hybrid of two other scales: the Feminist Identity Development Scale (Bargad & Hyde, 1991) and the Feminist Identity Scale (Rickard, 1989). Based upon Downing and Roush's (1985) model of feminist identity, the FIC measure five subscales of feminist identity development: *passive acceptance, revelation, embeddedness-emanation, synthesis*, and *active commitment*. The internal consistency of the FIC is .77 (Moradi & Subich, 2002), and there is also evidence for strong convergent validity (the FIC was related to reports of ego identity development, the Schedule of Sexist Events, and involvement in

women's organizations), discriminant validity as it relates to a social desirability measure (r=-.61 to .13), and structural validity (Fischer et al., 2000).

Although participants completed the full measure, only the *active commitment* subscale was utilized in data analyses. This stage represents a commitment to making meaningful social changes by engaging in behavior to encourage equality for women and men (Downing & Roush, 1985). Thus, individuals who score highly on this measure may be more likely to take committed action toward equality in a variety of ways, including, potentially, the ways in which they raise their children. Furthermore, although the FIC was created for and is traditionally utilized for women, the active commitment subscale has been completed by men in past research (see, for one, Boytos et al., 2020). The *active commitment* subscale has acceptable internal consistency,  $\alpha = .77$  (Moradi & Subich, 2002). In the current sample as a whole, the internal consistency was excellent, Cronbach's  $\alpha = .93$ . Internal consistency was acceptable for both men and women; male participants'  $\alpha = .81$  and female participants'  $\alpha = .87$ .

When completing the FIC, participants rated statements about their commitment to gender equality on a Likert scale of one to five, indicating that they "strongly disagree" or "strongly agree" with items. Scores on each item were averaged together, resulting in a subscale score with a possible range of one to five.

## Measure of Social Desirability

Because this study asked about personal values and beliefs, it is possible that some participants might have felt uncomfortable providing honest responses in this study in order to conform to what they believed researchers wanted to hear. To address this concern, the 33-

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item Marlowe-Crowne Social Desirability Scale (Crowne, 1960) was included in the research to examine whether participants were concerned with social approval in a way that might have impacted their responses. The Marlowe-Crowne Social Desirability Scale has been well-validated and has strong psychometric properties. It possesses good internal consistency (.88) and strong test-retest reliability (r=.89; Barger, 2002).

Responses on this scale were dichotomous. Participants indicated whether they believed each item on the scale was "true" or "false." Zero was indicative of no endorsement of the item ("false"), while one indicated that the item was endorsed as "true." Scores were then averaged together to find a final score between zero and one. Higher scores were indicative of more socially desirable responses.

In the current sample, the minimum was 0.13, maximum was 0.91, M = .48, standard deviation=.15. Internal consistency for this sample was found to be acceptable, Cronbach's  $\alpha$ =.75 for male participants and .73 for female participants (overall  $\alpha$ =.74).

#### **Results**

# **Participants**

#### **Excluded** Participants

Over the course of two academic semesters, a total of 769 participants completed the survey. However, the final sample size used in analyses consisted of n = 403 participants. There were multiple reasons why the final sample was significantly smaller; participants whose data were omitted could be classified into four categories. Note that multiple participants' data met criteria for exclusion in more than one way (for example, incomplete and failing one validity check), but participants' data only needed one reason to be excluded from the final sample of n = 403.

Some individuals were excluded due to survey error. There were some problems with Qualtrics quotas, so some participants were unable to complete the survey or attempted to take the survey more than once Ultimately, n = 57 individuals were omitted from the study due to survey error. Additionally, because the survey was online and many of the questions were on a Likert scale, there was a risk that participants would respond at random. To mitigate this problem, three multiple-choice questions on the survey served as validity checks. If participants did not answer any of the validity check questions correctly, their data were excluded from final analyses. A total of 58 individuals failed at least one validity check, so their data were excluded.

There were also three exclusionary criteria for the study. Participants over the age of 25, who were already parents, or who self-identified as a gender other than male or female were excluded from analyses. A total of n = 12 people met one of the three exclusionary criteria: six people were over the age of 25, one person was already a parent, and five people

identified as a gender other than male or female or declined to self-identify their gender identity.

The remaining participants' data was excluded due to missing data. Some individuals skipped several questions throughout the survey, or they skipped questions that made their data unusable (for instance, leaving the question about their year of birth blank). There were no apparent systematic reasons for data omissions and data appeared to be excluded at random. The sample had adequate power without these participants, so listwise deletion was utilized to omit them from final analyses. Listwise deletion is a common and acceptable strategy for omitting data missing at random (Allison, 2001). The final sample was n = 403 participants.

## Participant Demographics

Of the final sample (N = 403), 65.5% (n = 264) self-identified as female, and 34.5% (n = 139) self-identified as male. Very few individuals (n = 5) identified as a gender other than male or female; as mentioned previously, these participants were excluded from final analyses. The average age of the participants was 19.62 years (M=235.46 months, SD=15.09 months). Participants identified primarily as White (77.7%; n = 313), Black (11.2%; n=45), Asian (3.0%; n=12), and multiracial (3.2%; n=13). Less than two percent of participants (n=5) identified as Hispanic. Ten participants did not report race and ethnicity data.

Nearly 82% of participants identified as heterosexual (n = 330). Three percent of the sample (n = 12) described themselves as gay or lesbian, 7.9% (n = 32) identified as bisexual, and very small percentages identified as questioning or another orientation (.2% and 1.7%, respectively, total n = 8). Five percent of participants' responses (n = 20) could not be coded due to lack of clarity.

The majority of participants in the study were in either their first (51.4%; n = 207) or second (33.5%; n = 135) year of college at the time of study completion. The remaining participants were in their third (8.4%; n = 34), fourth (4.0%; n = 16), or fifth and above (1.2%; n = 5) years in school. Most participants were living at home with parents or guardians (69.0%; n = 278), while 6.9% (n = 28) lived on-campus in a dorm or apartment, 22.1% (n = 89) lived off-campus, and 2.0% (n = 8) reported being in another living situation. It should be noted that the onset of the coronavirus pandemic occurred just before data collection launched; this likely had an impact on students' living situations, particularly since more than half of the participants reported being in their first year of college.

Of the participants, 78.4% (n = 316) expressed a definitive desire to be a parent in the future, while 17.1% (n = 69) reported being unsure and 4.0% (n = 16) reported they did not want to be a parent in the future. This percentage is lower than in the past (Garmly and colleagues' [1987] research, for example, found that nearly 92% of its undergraduate sample intended to be parents in the future), but is consistent with more current recent research studies conducted both in and outside of North America. Eighty percent of O'Laughlin and Anderson's (2011) sample of undergraduate students indicated that they definitively wanted children in the future. Furthermore, 17% of the subjects in the O'Laughlin and Anderson (2011) study reported being unsure about wanting to be a parent in the future, a figure nearly identical to the 17.1% of individuals in the present study who reported being unsure. Research based in New Zealand noted that 89% of teenage participants in research about future parenthood had a definitive desire to have children someday (Calvert & Stanton, 1992). Similarly, a study in South Korea that examined attitudes toward future parenthood

reported that 72% of its sample (male and female university students) desired to be parents in the future (Shin et al., 2020).

Participants were stratified by gender and then within their gender groups, participants were randomized into the "future son" or "future daughter" conditions so that a roughly equal number of participants were in each of four conditions (women imagining daughters, women imagining sons, men imagining daughters, and men imagining sons). These groups became less even when cases were excluded due to missing data or incorrect validity checks. Of the final sample of 403 participants, 134 women (33.4%) were randomized to the future daughter condition and 128 women (31.9%) were randomized into the future son condition. Sixty-five men (16.2%) completed the survey under the future daughter condition, while 74 men (18.4%) were randomized into the future son condition.

## **Sample Psychometrics**

The descriptive statistics for each measure, including mean, standard deviation, skew, kurtosis, range, and internal consistency, can be found in Table 1 (female participants) and Table 2 (male participants). All variables met Byrne's (2010) criteria for normality; the data were normally distributed, and transformation of the data was not necessary. Bivariate correlations between all variables can be found in Table 4.

#### **Preliminary Data Processes**

### Creating Separate Male and Female Models for Analysis

Men and women are socialized differently from a very young age in a variety of domains, including play practices, and their perspectives are shaped by the ways in which they are socialized to view the world. Generally, women are more aware of the relationship between gender differences and societal expectations than men (Parker et al., 2017). This awareness occurs through multiple mechanisms. Beginning from childhood, girls are encouraged to play in ways that prepare them for parenthood. For instance, girls are often encouraged to take on caretaking roles in their play, while men are not encouraged to do the same (Maccoby, 1988; Thornton & Freedman, 1979). Women are also more likely to have experiences related to caretaking throughout their lives, from babysitting as children and adolescents (Calvert & Stanton, 1992), to working in early childhood education as adults (van Polanen et al., 2017). Men are less likely to have had these experiences, and thus may be less aware of parenting practices or less likely to consider the ways in which they want to raise their future children. Furthermore, both men and women often falsely perceive men as having a lower desire to be parents than women (Erchull et al., 2010), so less societal emphasis may be placed on preparing men to be parents than preparing women to be parents. Men and women's differences in their experiences with children and the time spent considering and preparing for potential future parenthood may have impacted the way they answered the questions in this study.

Another potential confound in this research involves gender differences in awareness of sexism. It may be that women are more aware of sexism than men. Because women are more likely to experience sexism or gender discrimination than men (Horowitz et al., 2017; Parker, 2018; Swim et al., 2001), they are therefore often oriented toward anticipating and reacting to prejudice based upon their gender (Swim et al., 1998). It is reasonable to deduce that participants' responses to this survey are influenced by the sexism in their environments as well as the resulting internalized gender stereotypes in that women will have increased awareness of sexism and gender-based prejudice, while men may lack awareness about the topic. Due to this, as well as initial differences in gender socialization as they relate to childhood and future parenthood described above, participant gender cannot be equally compared in the same model.

To ensure the results of this project account for the difference experiences of men and women, both in their experiences with childrearing and with gender-based discrimination, separate models for male and female participants were specified and tested. By creating separate models for participants based upon their gender, the fundamental differences in socialization that begin early in life are acknowledged and it is easier to control for the impact of gender on responses. This decision does not come without precedent: other research has utilized separate models to compare gender differences for related reasons, such as desire for future parenthood (see Gray et al., 2013).

In order to run two models based upon gender (female and male participants), the split file function of SPSS was utilized. All analyses were run utilizing split file.

## **Hypothesis Testing**

## Question 1: Do college-aged women and men differ in their accounts of past experiences with gendered play?

The first research question asked whether college-aged male and female participants' past experiences with play differed. Consistent with dated literature on the phenomenon of gendered play, I expected that college-aged men would report more frequent past experiences of play with toys stereotyped for boys than women would report. I also expected that college-aged women would report more frequent past experiences of play with toys stereotyped for girls than men would report. These hypotheses were tested utilizing an independent-samples t-test using dichotomous gender variables to compare the differences between male and female participants. As expected, male and female participants reported engaging in

gendered play in the past such that they were more likely to play with toys stereotyped for their own gender. College-aged women (M = 4.24) reported playing with toys stereotyped for girls during their childhoods significantly more than college-aged males (M = 3.08), t(398) = -15.14, p < .01. Similarly, college-aged men (M = 3.94) reported playing with toys stereotyped for boys significantly more than college-aged females (M = 3.49), t(338.98) =5.64, p < .01. T-test results are summarized in Table 3 of this manuscript.

# Question 2: Do college-aged women and men differ in their current endorsement of feminist values?

The second research question asked about differences between college-aged women and men's current identification with feminist values as measured by the *active commitment* subscale of the Feminist Identity Composite. It was expected that college-aged women would endorse higher feminist values more so than college-aged men. An independent samples ttest did not support this hypothesis, as men endorsed higher feminist values (M = 2.62) than did women (M = 2.22), t(343.12) = 6.39, p < .01.

## *Question 3. Do college-aged women and men differ in their plans for future play for their children?*

I hypothesized that college-aged women would endorse more flexibility around play than would men. Support for this hypothesis would have been established if women supported their daughters in playing with toys stereotyped for boys than men and if women supported their sons in playing with toys stereotyped for girls more than men.

To test this hypothesis, I first examined how men and women imagined playing with a hypothetical daughter in the future. As expected and in support of the hypothesis, collegeaged women (M = 3.97) were more likely to encourage their daughters to play with toys stereotyped for boys than were college-aged men (M = 3.61), t(197) = -3.24, p < .01. Although not central to the hypothesis being tested, college-aged women and men also differed in that college-aged women (M = 4.35) reported being more likely to encourage their daughters to play with toys stereotyped for girls than college-aged men (M = 4.04), t(197) =-3.03, p < .01.

Next, I examined how men and women differed when imagining playing with a future son. As expected and in support of this hypothesis, women (M = 3.92) were significantly more likely to encourage their sons to play with toys stereotyped for girls than men (M=3.32), t(200)=-5.59, p < .01. Additionally, both college-aged women and men reported a roughly equal likelihood of having their future sons play with toys stereotyped for boys, t(200)=.57, p = .57. There were no significant differences between women and men's means (M = 3.81 and M = 3.87, respectively) when thinking about future sons engaging with toys stereotyped for boys.

Question 4. What is the strongest predictor of college-aged women's future play style as it relates to gender socialization: past play experiences, gender of a hypothetical child, or feminist values?

A binary logistic regression tested which predictor variable (past experience with toys stereotyped for girls, past experience with toys stereotyped for boys, current identification with feminist values, gender of a hypothetical future child) would be the strongest predictor of college-aged women's group membership in the "high plans for gendered play" category. I predicted that past experiences with toys stereotyped for boys and girls (past engagement in gendered play practices) would be the strongest predictor of college-aged women's engagement in future gendered play practices.

The model with no predictors successfully predicted 85.8% of cases. The omnibus test of model coefficients indicated that the model with predictors entered is a significantly better fit than the model with no predictors,  $\chi^2$  (4) = 37.40, p < .001. The model explained about 26% (Nagelkerke  $r^2$  = .259) of the variance, and the results of the Hosmer and Lemeshow test for goodness of fit indicated that the model is a good fit (p=.54). The overall classification accuracy of the model was 85.4%. Of the college-aged females who reported likely future engagement in egalitarian play, 97.6% (n=201) were accurately predicted by the model. Of the college-aged females who endorsed future engagement in gendered play, 11.8% (n=4) were predicted accurately by the model.

For female participants, three predictors significantly predicted group membership: past experiences with toys stereotyped for girls, past experiences with toys stereotyped for boys, and the hypothetical gender of a future child. Women who reported engaging in play stereotyped for girls in the past were increasingly more likely to engage in gendered play in the future such that for one unit increase in childhood experiences with toys and activities stereotyped for girls were 6.92 times more likely to be categorized as members of the gendered play group (OR = 6.92, 95% confidence interval [C.I. 2.96, 16.16]). A one-unit increase in female participants' past experiences with toys stereotyped for boys decreased female participants' likelihood of gendered play in the future by .53 times (OR = .53, 95% confidence interval [C.I. .35, .79]). The randomized gender of an imagined child also predicted gendered play such that imagining a future daughter led to a higher likelihood of gendered play in the future (OR = 2.56, 95% confidence interval [C.I. 1.06, 6.15]). Current identification with feminist values was not a significant predictor of gendered play (see Table 5 for more information). Thus, the initial hypothesis was supported overall such that past experiences with gendered play do predict future gendered play practices. Furthermore, the gender of a future child also impacts gendered play group membership.

Question 5. What is the strongest predictor of college-aged men's future play style as it relates to gender socialization: past play experiences, gender of a hypothetical child, or feminist values?

A binary logistic regression tested which predictor variable (past experience with toys stereotyped for girls, past experience with toys stereotyped for boys, current identification with feminist values, gender of a hypothetical future child) would be the strongest predictor of college-aged men's group membership in the "gendered play" category. Again, the hypothesis for this question predicated that past experiences with gendered play (more specifically, past experiences with toys stereotyped for girls and toys stereotyped for boys) would be the strongest predictor of college-aged men's future play practices.

The model with no predictors correctly predicted 82% of cases. The omnibus test of model coefficients indicated that the model with predictors entered fit the data significantly better than did the model with no predictors  $\chi^2$  (4) = 21.65, p < .001. The model explained approximately 25% (Nagelkerke r<sup>2</sup> = .246) of the variance, and results of the Hosmer and Lemeshow test were indicative of a good fit (*p* = .73). The overall classification accuracy of the model was 82.7%. Of the college-aged males who engaged in egalitarian play, 95.4% (*n* = 104) were predicted accurately by the model. Of the college-aged males who endorsed engagement in gendered play, 25% (*n* = 6) were accurately predicted by the model. For male participants, past experiences with gendered play uniquely predicted group membership. For men, engagement with toys stereotyped for girls in the past predicted lower

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likelihood of engagement in gendered play in the future. More specifically, for one unit increase in childhood experiences with toys and activities stereotyped for girls, men were .404 times less likely to be categorized as members of the gendered play group (OR = .404, 95% confidence interval [C.I. .20, .84]). Conversely, for every one unit increase in childhood experiences with toys and activities stereotyped for boys, likelihood of engagement in gendered play in the future increased by 6.19 (OR = 6.19, 95% confidence interval [C.I. 2.53, 15.12]). The randomized gender of an imagined future child and current identification with feminist values did not significantly predict gendered play group membership (see Table 6 for details). Thus, the hypothesis that men's past experiences with gendered play would be strong predictors of gendered play in the future was supported to the extent that increased play with toys stereotyped for girls decreases the likelihood of future gendered play, while increased play with toys stereotyped for boys increases the likelihood of engaging in gendered play in the future.

#### Discussion

The purposes of this study were to add to the literature on gendered play and to understand predictors of high levels of future gendered play practices within the context of upbringing and current culture in the form of identification with feminist values. Consistent with previous literature, both male and female participants reported engaging in gendered play during childhood. Unexpectedly, male participants endorsed significantly higher feminist values than female participants. Women, compared to men, were more likely to encourage their hypothetical children to play with toys stereotyped for the opposite gender. Finally, for both men and women, past experiences with gendered play were the strongest predictor of plans for gendered play with future children. Considered together, results suggest that the gendered play phenomenon was still present when these participants were children in the 2000s and gendered play may continue with the next generation of children if participants follow through on their plans to play with their future children.

#### **Replication of Past Research**

Results of this study were consistent with results from decades ago, when the literature about gender socialization and play was most prominent. As expected, men reported higher levels of play with toys and activities stereotyped for boys than did women, while women reported higher levels of play with toys and activities stereotyped for girls than did men. While retrospective reports may not accurately represent accounts of past behavior, these reports confirm that men and women perceive gender expectations from their parents and gendered play in their childhood.

In the past, research broadly suggested that women were less rigid about gender norms than men (Jacklin et al., 1984). In this study, college-aged female participants were more likely to encourage their children to play with toys stereotyped for the other gender (for instance, daughters playing with toys stereotyped for boys and sons playing with toys stereotyped for girls). This result is indicative of the flexibility in gender norms demonstrated by women and mothers.

In contrast, historically, men were often the individuals who enforced and therefore perpetuated gendered play stereotypes (Freeman, 2017; Langlois & Downs, 1980). Men overtly encouraged their sons to play with toys stereotyped for boys (Jacklin et al., 1984; Snow et al., 1983) and punished their sons who did not engage in gendered play (Langlois & Downs, 1980). Similarly, in the current study, we found that men tended to be less flexible in breaking gender norms by allowing their children to play with toys stereotyped for the other gender. Men were significantly less likely than women to encourage their hypothetical sons to play with toys stereotyped for girls and men were significantly less likely than women to encourage their hypothetical daughters to play with toys stereotyped for boys. Results also indicated that women were more likely than men to encourage their daughters to play with toys stereotyped for girls, consistent with research by Jacklin and colleagues (1984). It may be that women, who are often designated as caregivers in the family and are socialized as such starting from a young age (Maccoby, 1984), take a more active role in encouraging their children to play, regardless of the gender of the child. Indeed, although men spend more time on childcare and other activities related to childrearing than in the past, mothers are still responsible for the majority of childcare and related tasks (Livingston & Parker, 2019) and may therefore have a larger influence over their children's activities and, therefore, their gender socialization.

Results of a large time diary study support this: while men often engage in more physical play with their children, women engage in significantly more interactive time with their children, which includes play as well as teaching, reading, listening, providing discipline, and other tasks (Craig, 2006). Additionally, women were more likely to spend time on physical care (feeding and bathing, for example), transporting their children, and communicating with relevant stakeholders in a child's life (teachers, etc.) than men (Craig, 2006). The ongoing coronavirus pandemic has also highlighted the disproportionate responsibilities of women relative to men when it comes to childcare. In one study, over 70% of women surveyed indicated that they were responsible for more childcare than their partners (Kerr et al., 2021). Furthermore, there was a significant difference between men and women's mental health symptoms such that women endorsed significantly more anxiety symptoms and burnout that interfered with their ability to parent than did men (Kerr et al., 2021). Data from the 2020 census reported that 16% of surveyed women were not working at the time of the survey because they were caring for a child who was not in school or childcare because of the pandemic, while only 5% of men reported not working for the same reason (Rhubart, 2020). It may be that women have significantly more influence over their children's play than men due to the significantly higher amount of time women tend to spend with them, regardless of the activity they are engaged in (play, discipline, physical care, etc.).

If the differences between men and women reflect women taking on more caregiving responsibilities than men in general, it is notable that men and women reported roughly *equal* plans to encourage their sons to play with toys stereotyped for boys. This may be because, societally, gender norms are often more rigid and restrictive for boys and men than for girls and women throughout the lifespan (Koenig, 2018). Research by Koenig (2018) indicated

that, while girls had positive predictive stereotypes (encouragement of certain behaviors or traits viewed as more feminine), boys had both positive predictive stereotypes (encouragement of masculine behaviors and traits) and negative prescriptive stereotypes (encouragement to avoid engaging in feminine behaviors or possessing feminine characteristics). Thus, boys are given instructions about how they should not behave in addition to how they should behave, while girls are only given instructions about how to behave. These stereotypes also impact play, as historically it has been more socially acceptable for girls to flexible in their play (playing with toys stereotyped for boys in addition to toys stereotyped for girls) than boys (McHale et al., 2003). It may be that parents, regardless of their gender, may uphold this stereotype for their sons while encouraging more flexibility in play for their daughters.

## **Differences in Feminist Values**

Interestingly, college-aged male participants endorsed higher feminist values than college-aged female participants. This was not an expected outcome, as women consistently report higher endorsement of feminist values than men (Cai & Clement, 2016). There could be multiple reasons for this result. It may be that modern men, at least in this sample, identify more with feminist values than modern women. If this were the case, this sample would likely be an anomaly. Recruitment and the demographics of the sample may have also played a role. Participants for this research were recruited from undergraduate psychology classes. It may be that these individuals are aware of feminism or identify with the values due to their interest in psychology, a field that has emphasized equity and social justice, particularly in recent years. While these are plausible explanations, it is most likely that the measure utilized to capture feminist values in this study may have impacted the results. The Feminist Identity Composite was not normed on men and was written to be completed by women. This was rectified in part by only utilizing the *Active Commitment* subscale of the measure, which had questions that could be completed by men and women without modification. (Other subscales had questions like "In my interactions with men, I am always looking for ways I may be discriminated against because I am female," which required modification in order for men to participate.) A different, more comprehensive measure, rather than one subscale of a measure normed on women alone, may have resulted in a different outcome. Additionally, the questions on the *Active Commitment* subscale do not explicitly use the word "feminism," which might have impacted the results for male participants, as men are more likely to support gender equality when the label "feminist" is not used (Minkin, 2002).

### What Factors Matter in Predicting High Plans for Gendered Play?

While history with gendered play is a relevant factor for both men and women, different factors predict gendered play group membership for men and women. For women, past experiences with toys stereotyped for girls was a significant predictor of membership in the gendered play group. More exposure to play with toys stereotyped for their own gender led to a desire to want to, in the future, parent their own children similarly. Men who were encouraged to play with toys stereotyped for boys were also more likely to encourage their future sons to do the same. The primacy effect, in this case, appears to uphold the pattern, though it is also likely that gender stereotypes are reinforced so consistently throughout society that they are continuously reinforced and therefore become more engrained over time. The gender of an imagined child was a significant predictor of gendered play group membership for women only. Women who were asked to imagine daughters were more likely to be members of the gendered play group than women who were asked to imagine sons. Results of the regression did not note the same phenomenon in college-aged male participants. Thus, the gender of an imagined child is a relevant factor when women consider whether to encourage their child to engage in gendered play in the future. It could be that women are more concerned with encouraging flexibility in their sons' gender roles since sons' gender roles are typically less flexible than daughters' (McHale et al., 2003).

Imagined child gender was not related to men's likelihood of belonging in the "high gendered play" group. Considering that men were less likely to encourage their future sons to play with toys stereotyped for girls (and vice versa, for future daughters and toys stereotyped for boys), it seems that men may encourage their children to engage in gendered play regardless of the gender of the child. It may also be that women are more aware of the existence and impact of gender socialization and as a result make more conscious decisions to parent their children in certain ways. This is evidenced by the "high gendered player" minimums and maximums for men and women. To be considered a "high gendered player," men's gendered play scores ranged from 1.15-3.50. However, women needed lower gendered play scores, ranging from .83-2.80, to be classified into the "high gendered player" category. As a result, men who were not classified as "high gendered players" by the standards of this research may be considered gendered players by women, who have a lower cutoff for the category. Moreover, if women were held to the men's standards for what constitutes high levels of gendered play, only 22 women would be classified in the "high gendered play" group instead of 35.

## **Potential Intergenerational Transmission of Gendered Play**

Many participants in this study reported engagement in gendered play in the past in that women reported playing with toys stereotyped for girls in the past and men played with toys stereotyped for boys in the past. Interestingly, when asked to consider how they would want their future children to play, an overwhelming majority of participants (n = 316) reported a desire to encourage their children to engage in egalitarian play. This means participants saw themselves encouraging their future children to play with both toys stereotyped for girls and toys stereotyped for boys, regardless of the gender of their future child. Participants, therefore, expressed a desire to play with their children differently than the ways in which they were encouraged to play during their own childhoods.

Many aspects of parenting are intergenerationally transmitted in that parents often engage with their children in similar ways in which their parents engaged with them (Serbin & Karp, 2003). Intergenerational transmission can occur over multiple generations, from grandparents to parents to children (Van Ijzendoorn, 1992). Indeed, antisocial behavior (Thornberry et al., 2003), child maltreatment and hostile parenting, family discord, and discipline methods (Belsky et al., 2009) are all intergenerationally transmitted, passed down from one generation of parents to the next. There is some evidence that views on gender may be intergenerationally transmitted as well. For example, a study by Carlson and Knoester (2011) investigated the intergenerational transmission of gender ideology and how family structures may impact this transmission. Results showed that biological parents' views on gender impacted their children's views on gender, with biological mothers' influence the most consistent over time and biological fathers' ideology. A recent study noted that fathers'

participation in housework and childcare was associated with more egalitarian views on gender in their children (Cano & Hofmeister, 2022). Although research on intergenerational transmission is plentiful, research in the area of intergenerational transmission of gender socialization is more limited.

Results of this research justify additional research on the intergenerational transmission of gender socialization, operationalized as gendered play. Despite engaging in gendered play in the past, most individuals in this study expressed a desire for egalitarian play for their own children in the future, implying that, for these participants, gendered play might not be intergenerationally transmitted. It may be that these participants may be making a concerted effort to parent differently than the way they were raised. Cultural changes, operationalized in this study as identification in feminist values, did not have an impact on future play practices, but other values or cultural factors could potentially play a role. Because this study assessed attitudes toward future play practices, and attitudes do not always directly correspond with future behaviors, longitudinal research in this area would be beneficial.

## Implications

According to the results of this research, gender socialization operationalized as the phenomenon of gendered play continues to exist and may continue to exist for the foreseeable future, despite changing societal factors like increased identification with feminist values (which had no impact on future gendered play practices). This information has numerous implications that relate to individuals and their own identities, as well as families.

It is worth noting that gender socialization is a phenomenon that serves multiple purposes. For instance, it is thought that gender socialization can help children make sense of the world around them and create social bonds with a group similar to themselves (Martin & Ruble, 2004). Learning about one's own gender in childhood is a part of normative, healthy identity development, and exploration of different gender identities is developmentally appropriate as well (Rafferty et al., 2018). However, there can be negative consequences of gender socialization. Parent and child interactions and relationships are bidirectional, meaning that both parties have agency and children can provide feedback to their parents about their wants and needs. For instance, there is no harm in boys only playing with toys stereotyped for boys if that is what they want to do. However, if a boy wants to play with toys stereotyped for girls and his parents or caregivers disapprove and do not allow him to do so, problems could arise. The rigid implementation of gender roles on children without said children's input or feedback could potentially cause harm, both to the child and to the parent-child relationship over time.

Rigid gender roles resulting from childhood gender socialization have the potential to cause unique harm for individuals who identify as sexual and gender minorities. Parents' and caregivers' expectations for behavior and identity are frequently based upon traditional gender roles, so familial rejection due to gender- or sexuality-related issues is not uncommon (Aparicio-Garcia et al., 2018; Grant et al., 2011) and individuals who identify as sexual and gender minorities often do not get the support from family that they need (Grant et al., 2011). Individuals who identify outside of the cisnormativity of the gender binary are at higher risk for a multitude of mental health concerns, including anxiety, non-suicidal self-injury, depression, suicidality (Reisner et al., 2015) and suicide attempts (Grant et al., 2011). Non-binary individuals are at higher risk of cyberbullying than others and are more likely to experience social invalidation (Johnson et al., 2019), social withdrawal, and familial rejection

than cisgender individuals (Grant et al., 2011). Thus, family support is incredibly important because it can serve as a protective factor for those who identify as sexual or gender minorities (Roe, 2017).

The implementation of rigid gender stereotypes via mechanisms such as gendered play may be harmful for many individuals in different ways, depending upon the degree of rigidity with which they are implemented and upheld. The majority of participants in this study were classified into the egalitarian play group based upon their responses. This is good news, as these future parents do not anticipate encouraging their children to play with toys only stereotyped for the gender of the child in question. However, some young adults still expressed a desire to engage their children in gendered play activities in the future. Negative consequences of gender socialization in early childhood, via mechanisms such as play, will likely continue to persist in society for at least the next generation, as future parents anticipate socializing their future children in ways they were also socialized based on their genders.

Individuals who seek out mental health treatment should be treated differently based upon their gender identity if that is an area of salience for them. The APA's (2018b) publication of their revised "Guidelines for Psychological Practice with Girls and Women" explicitly states that psychologists should strive to provide care for women that is "gendersensitive" (p. 5) as much as they should strive to consider other cultural and developmental factors. Gender-sensitive care involves honoring each individual's definition of what it means to be a woman and how an individual's culture, context, and system has influenced that definition (APA, 2018b). Additionally, the APA deems it necessary for clinicians to understand the oppression and gender-based discrimination that historically impacted and continues to impact women (APA, 2018b).

Similarly, the updated "Guidelines for Psychological Practice with Men and Boys" (2018a) acknowledge that, while many men have societal privilege, adhering to rigid gender stereotypes often lead to "gender role conflict" (p. 3). This conflict could potentially lead to fewer men seeking psychological help or support when it is needed. Because men are socialized from a young age in a way that emphasizes characteristics such as emotional control and autonomy (Barbee et al., 1993; APA, 2018a), some may be less likely to seek out social support when necessary (Staiger et al., 2020). The APA's guidelines deem it necessary for clinicians to consider the implications of this when encouraging men to engage in health-promoting behaviors and advocating for cultural and systemic change for male-identifying individuals (APA, 2018a). Psychologists should be mindful of the different experiences of male- and female-identifying individuals and treat gender as an important aspect of identity and intersectionality. Understanding how gender is socialized, as well as the impact of that gender socialization on individuals and families, is therefore critical for psychological treatment.

Clinical practice with gender-nonconforming individuals may also be impacted by this research. In 2015, the American Psychological Association released their Guidelines for Psychological Practice with Transgender and Gender Nonconforming People, which outlined aspirational guidelines for psychology professionals who work with this population. The document provides applications for each guideline in clinical practice. One such recommendation states that the role of a psychologist working with this population often involves helping individuals and, in some cases, their families, understand and unpack

gender identity as it relates to gender norms and stereotypes (APA, 2015). Doing so will often include reflections on childhood experiences with gender socialization and the development of gender identity. Gendered play may be a relevant topic of discussion, as it is observable and can be reflected upon, and the results of this research may be used to provide context for these conversations.

Furthermore, not all gender-nonconforming individuals have a history of gendernonconforming behavior in early childhood (Edwards-Leeper & Spack, 2012). Children may have engaged in gendered play without question or any sign that they may be struggling with their gender identity. Considering that many parents come from backgrounds of rigid gender socialization, and that some young adults plan to continue to encourage this traditional gender socialization through gendered play with their own children in the future, it is not surprising that gender dysphoria or gender role nonconformity in children might go unrealized until an individual is older or reaches puberty. Familial discord may develop when an individual who did not display gender-nonconforming behavior identifies as a gender other than male or female seemingly without warning. Psychologists should be prepared to address such familial strife as well as provide psychoeducation to families. An understanding of the relevant literature, including research on gendered play, is a useful tool in these cases.

Finally, this research also has implications for family therapy. Fathers are often viewed as the primary agents of gendered play, as well as gender stereotypes as a whole (Freeman, 2007; Langlois & Downs, 1980). This conclusion was upheld, at least in part, by this research, in that men were significantly less likely than women to encourage their sons to play with toys stereotyped for girls and their daughters to play with toys stereotyped for boys. Thus, treatments that target relationships between fathers and their children (namely, their sons) may help to address and change these biases should families wish to do so.

These findings support psychological treatments that already exist that are addressing the negative impact of gender socialization. Play therapy can be one such mechanism by which gender stereotypes—and gendered play—can be tackled both directly and indirectly. Wickstrom (2010) described a method by which child-parent relationship therapy (CPRT) can be utilized to address gender relations within families. The goal of CPRT is to improve attachment between child and caregiver in order to improve the parent-child relationship and, subsequently, the child's behavior (The California Evidence-Based Clearinghouse, 2019). In addition to the primary treatment objectives, Wickstrom argues that gender socialization can be tackled directly through the mechanism of play.

During the treatment, parents are encouraged to engage positively with their children and the toys they choose to play with, regardless of whether the toys are stereotyped for the child's gender (Wickstrom, 2010). Fathers in particular may benefit from the treatment because the focus is on identifying and validating children's emotions and accepting their experiences and behaviors; these are behaviors fathers do not always engage in due to their being socialized to focus less on emotional expression (APA, 2018) and caregiving than mothers (Jacklin et al., 1984). CPRT can change families' patterns of interactions in that, ideally, gender roles and socialization have less of an impact on family roles and relational patterns following treatment (Wickstrom, 2010). Therapists are also encouraged to consider their own biases related to gender stereotypes and change their behavior to encourage more egalitarian parenting (considering why they are more likely to call a child's mother than their father, for example; Wickstrom, 2010). Thus, CPRT is a current intervention by which

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gendered play is addressed directly. In addition to correcting behavior issues and improving parent-child relationships, the treatment can be used to correct rigid gender socialization that may become harmful over the course of a child's life.

## Limitations & directions for future research

Limitations of this research and the study design should not be discounted. Although the starting sample was large, the four experimental groups (female participants assigned to imagine a female child, female participants assigned to imagine a male child, male participants assigned to imagine a female child, and male participants assigned to imagine a male child) were smaller and ultimately unequal in size. Despite efforts to control for equal groups, data cleaning and the disparity in participant genders (more women completed the study than men) led to unequal groups. This could impact the power of the study and may also result in the false rejection of the null (i.e., a higher risk of Type I error).

Additionally, the number of participants classified into the gendered play group based upon their answers was significantly smaller than the egalitarian play group, meaning that most participants' reports were not significantly stereotyped in favor of the gender of the imagined child and that most people planned to engage in egalitarian play with their children. While this result could be considered positive in that most participants intend to engage in egalitarian play, indicative of progress in reducing gender socialization, the focus of the research was on gendered play group membership. Though this could not have been controlled in the study methodology itself, it may have impacted the results, as groups differing in size may have an impact on power.

A significant number of participants' data were excluded from final analyses because they were missing responses. There was no evidence that there were systematic reasons for data omission. The design and layout of the study (Likert-scale questions in a table format) may have caused some questions to be overlooked. Because adequate power was not a concern, listwise deletion was utilized to eliminate missing data. Future work with these data may consider utilizing other strategies for missing data, including conducting tests to verify that data were missing completely at random, such as Little's test (Little, 1988).

It should be noted that gender socialization and, therefore, gendered play, is significantly impacted by culture in that culture determines what behaviors are acceptable and desirable based upon an individual's gender. determined and may vary based upon society's expectations of different gender roles. The gender socialization that was discussed in this paper was based on societal expectations of a North American, largely Caucasian lens, as most of the participants (77.7%) were white. Future studies may wish to consider gender socialization from different cultural perspectives. Considering the impact of the intersectionality of multiple identities (socioeconomic status, religious background, race, etc.) on gender socialization would likely also be useful. Furthermore, this study did not consider the impact of familial factors such as birth other, family structure (for instance, parents' marital status, multigenerational families, grandparents serving as caregivers, etc.), or number of children, on gendered play.

This study utilized self-report to gather information from participants. Only one perspective about past experiences with play behaviors was gathered and utilized. This source invariance means that the data collected could be inaccurate or skewed. Parents of these college-aged participants, for example, may have reported different memories or perceptions of these past play experiences. The perception of past experiences, even if not shared by parents of participants, still may be an important predictor in how college students will play with their children in the future. Additional research aimed at testing the agreement between parents' perceptions of their play behaviors with their children and their now-adult children's perceptions of past play behaviors is currently underway but is still in the data collection phase and is beyond the scope of this project.

It is important to note that plans for play may not generalize into play behaviors in the future. More specifically, participants in the study could endorse a desire to engage in egalitarian play in the future but instead ultimately engage in gendered play, or vice versa. Past research notes that parents' behaviors are stronger predictors of their children's future attitudes toward gender roles than are parents' beliefs about gender (Halpern & Perry-Jenkins, 2016). This may also be the case for gendered play behaviors and beliefs. Specifically, beliefs about gendered play might not translate to play behaviors in the future. Further research that specifically examines play behaviors in addition to beliefs about play would therefore be beneficial. Additionally, this study was cross-sectional, but asked participants to reflect on their past and their future. Longitudinal research about gender socialization could assess play behaviors. As stated previously, including data from participants' parents is underway, and could yield insight into whether attitudes toward gendered play behaviors are intergenerationally transmitted.

The focus of this study was on identifying factors that would predict high levels of gendered play. For that reason, future play plans were dichotomized into the "egalitarian play" and "gendered play" groups utilizing a median split. Future studies may decide to conceptualize gendered play as a continuous variable or may wish to trichotomize play plans (egalitarian play, gendered play, and opposite-gender play).

Play practices have changed over time. The way children play has shifted in multiple ways and has done so rapidly with the rise of technology. Play has increasingly involved technology, and children are consistently engaged with technology such as video or computer games starting from a young age, often younger than age three (Slutsky & DeShetler, 2016). More time is spent in structured play activities (classes, groups, organized sports, etc.; Slutsky & DeShetler, 2016), leaving less time for free play (Chudacoff, 2008). Play is also more sedentary (Slutsky & DeShetler, 2016) and time spent playing outdoors has decreased in recent years (Chudacoff, 2008; Slutsky & DeShetler, 2016; Tandon et al., 2021). When children do play outside, some simultaneously use digital devices (Larson et al., 2011). These changes may impact the mechanisms by which children learn about the world. Considering the important role of play in development, examining how the changing nature of play potentially impacts gendered play and therefore gender socialization may be an appropriate next step for the research in this area.

Finally, although gender was historically viewed as dichotomous and was therefore studied as such, gender is recognized by the field of psychology as a spectrum with more identities possible than just the binary female and male (APA, 2015). Gender research changes quickly, and over the course of the several years during which this research was conducted, views on gender and how it should be discussed and researched have changed. At the time of this study's conception, we designed it to be gender-affirming in that participants were asked to self-identify their biological sex, gender identity, and sexual orientation on three open-response items (see Appendix C). Participants of this study self-identified as female and male, with a very small number of individuals self-identifying as a different gender identity (for instance, nonbinary). Including the small number of participants who identify as a gender other than male or female in final analyses would have threatened these individuals' confidentiality, as well as impacted statistical power.

There are differing opinions about how to identify and report gender identities and how to use this information effectively and appropriately in research. I acknowledge that the chosen phrasing may be outdated or offensive to some. Future research should take this into consideration. The population of individuals whose gender identity is neither cisgender male nor female is growing (Flores et al., 2016), and this population is often subjected to higher rates of mental health concerns (Reisner et al., 2015; The Trevor Project, 2022). It is imperative for future research to examine the impact of the gendered play phenomenon and, more broadly, gender socialization on individuals of all gender identities.

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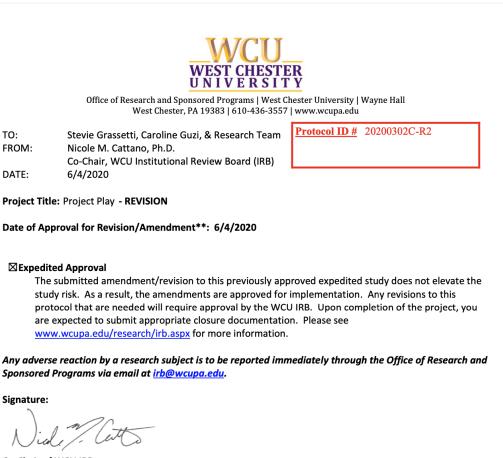
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### **Appendix A**

#### **IRB APPROVAL FORM**



Co-Chair of WCU IRB

WCU Institutional Review Board (IRB) IORG#: IORG0004242 IRB#: IRB00005030 FWA#: FWA00014155

West Chester University is a member of the State System of Higher Education

#### **Appendix B**

#### **ELECTRONIC CONSENT FORM**

Project Title: Project Play

Investigators: Stevie Grassetti, PhD; Caroline Guzi, MA

**Key Information:** We are inviting you to participate in a study to determine how past experiences and current values contribute to future family plans. Your participation will involve taking one electronic survey. The survey will take approximately 45 to 60 minutes to complete. If you would like to participate in this research, West Chester University requires that you agree and electronically sign this consent form. If you don't want to be a part of the study, it won't affect any services you may receive from West Chester University. If you choose to be a part of this study, you have the right to change your mind and stop being a part of the study at any time.

1. What is the purpose of this study?

To understand how past experiences and future ideas contribute to family plans.

- 2. If you decide to be a part of this study, you will be asked to do the following:
- Consent to participate.
- Take an online questionnaire.
- Provide your parent's first name, email address, and phone number (optional).
- This study will take approximately 45-60 minutes.
- 3. Are there any experimental medical treatments?

No.

4. Is there any risk to me?

Although we do not anticipate any risk, some people may feel uncomfortable thinking about their past or their future. However, we do not anticipate that any discomfort will cause clinically significant distress. You have the right to stop the survey at any time.

5. Is there any benefit to me?

Participants will receive one course research credit after completing the survey. Other benefits may include a better understanding of what contributes to future family plans.

6. How will you protect my privacy?

- The session will not be recorded.
- Your records will be private. Only Stevie Grassetti, Caroline Guzi, and the IRB will have access to your name and responses. Before data analysis, your identifiable information (such as your name and email address) will be replaced with an ID number to ensure your responses are confidential.
- Your name will not be used in any reports.
- Records will be stored on a password protected file/computer. Records will be destroyed 10 years after the study is completed.
- 7. Do I get paid to take part in this study?

You will be awarded one (1) course credit for completing research through SONA following survey completion.

8. Who do I contact in case of research-related injury?

For questions about the study, contact:

Primary Investigator: Dr. Stevie Grassetti, 610-436-2751, sgrassetti@wcupa.edu

Secondary Investigator: Caroline Guzi, cg877499@wcupa.edu

#### 9. What will you do with my identifiable information?

Identifiable information will be stored separately from responses to the survey. We will retain identifiable information indefinitely to confirm course credit for participating in research and may contact you to participate in future studies.

For any questions about your rights in this research study, contact the ORSP at 610-436-3557.

Typing my name below means I have read this form and I understand it. I know that if I am uncomfortable with this study, I can stop at any time. I know that it is not possible to know all possible risks in a study, and I think that reasonable measures have been taken to decrease any risk.

#### [type name here]

- Yes, I consent to participate in the research study.
- No, I do not consent to participate in the research study.

# Appendix C

## ELECTRONIC DEMOGRAPHICS QUESTIONNAIRE

Please select or type in the appropriate answer.

What is your email address?

Please type in your birth month.

Please type in your birth year.

What year are you in at West Chester University?

- First year
- Second year
- Third year
- Fourth year
- Other (please specify) \_\_\_\_\_

What is your sex?

- Male
- Female
- Other (please specify) \_\_\_\_\_

What is your gender identity? \_\_\_\_\_

What is your sexual orientation?

What is your race/ethnicity?

What is your major? \_\_\_\_\_

Please select which best describes your current living situation.

• Living on-campus (dorm/apartment)

- Living off-campus
- Living with parent(s)/guardian(s)
- Other \_\_\_\_\_

Please list the people living in your household when you were growing up (siblings, parents, grandparents, etc. You don't need to use their names, just list their age, sex, and relationship to you. For example: "55," "mom," "18 years."

Age (approximate is okay)	Relationship to you	How long you lived with them

Growing up, who did you live with?

(For example: "My mom and dad split custody. I lived with my mom most of the time and my dad for extended periods during the summer. I had two younger half-siblings at my mom's house and her husband also lived with us. I had three older step-siblings at dad's house.")

Who would you say "raised" you? (Examples: "mom," "maternal grandfather")

Please pick one word to describe your childhood relationship with [the person above].

Thinking about the word you picked to describe your childhood relationship with [the person above], what memories or specific instances come to mind?

To what caregiver did you feel closest to as a child?

What is the highest level of education your mother completed?

• Some high school

- Graduated high school
- Some college
- 2-year degree/trade school
- 4-year degree
- Graduate degree

What is the highest level of education your father completed?

- Some high school
- Graduated high school
- Some college
- 2-year degree/trade school
- 4-year degree
- Graduate degree

Have you ever been in therapy?

- Yes
- No

[If yes] What kind of therapy have you attended? (Select all that apply.)

- Individual
- Couples' therapy
- Family therapy

Are you currently a parent?

- Yes
- No

Do you have a desire to be a parent in the future?

- Yes
- No
- Unsure

What is your biggest reason for wanting to be a parent?

What is your biggest reason for not wanting to be a parent?

What is the ideal age for you to become a parent?

# Appendix D

### MEASURE OF SOCIAL DESIRABILITY

### Marlowe-Crowne Social Desirability Scale (Crowne & Marlowe, 1960)

Listed below are a number of statements concerning personal attitudes or traits. Read each item and decide whether the item is true or false as it pertains to you personally.

Before voting, I thoroughly investigate the qualifications of all the candidates.	True	False
I never hesitate to go out of my way to help someone in trouble.	True	False
It is sometimes hard for me to go on with my work if I am not encouraged.	True	False
I have never intensely disliked anyone.	True	False
On occasion, I have had my doubts about my ability to succeed in life.	True	False
I sometimes feel resentful when I don't get my way.	True	False
I am always careful about my manner of dress.	True	False
My table manners at home are as good as when I eat out in a restaurant.	True	False
If I could get into a movie without paying and be sure I was not seen, I would	True	False
probably do it.		
On a few occasions, I have given up on doing something because I thought too little	True	False
of my ability.		
I like to gossip at times.	True	False
There have been times when I feel like rebelling against people in authority even	True	False
though I knew they were right.		
		1

Please choose "orange."

• Yellow

- Red
- Orange

No matter who I'm talking to, I'm always a good listener.	True	False
I can remember "playing sick" to get out of something.	True	False
There have been occasions when I took advantage of someone.	True	False
I'm always willing to admit it when I made a mistake.	True	False
I always try to practice what I preach.	True	False
I don't find it particularly difficult to get along with loud-mouthed, obnoxious	True	False
people.		
I sometimes try to get even rather than forgive and forget.	True	False
When I don't know something, I don't at all mind admitting it.	True	False
I am always polite, even to people who are disagreeable.	True	False
At times, I have really insisted on having things my way.	True	False
There have been occasions when I felt like smashing things.	True	False
I would never think of letting someone else be punished for my wrongdoings.	True	False
I never resent being asked to return a favor.	True	False
I have never been irked when people expressed ideas very different from my own.	True	False
I never make a long trip without checking the safety of my car.	True	False
There have been times when I was quite jealous of the good fortune of others.	True	False
I have almost never had the urge to tell someone off.	True	False
I am sometimes irritated by people who ask favors of me.	True	False
I have never felt that I was punished without cause.	True	False

I sometimes think when people have a misfortune they only got what they	True	False
deserved.		
I have never deliberately said something to hurt someone's feelings.	True	False

### Appendix E

#### MEASURE OF FUTURE EXPERIENCES WITH GENDERED PLAY

### Child Gender Socialization Scale (CGSS; Adapted from Blakemore & Hill, 2008)

Note: Participants were randomized to the "future son" or "future daughter" condition. Only one condition was presented to each participant.

Please imagine yourself as the parent of a six-year-old boy (six-year-old girl) and answer the following questions about how you envision parenting him (her).

Rate how you would feel about your future son (future daughter) playing with the following toys on a scale from 1 to 5, where 1=very negatively, 3=neutral, and 5=very positively.

	1	2	3	4	5
	Very	Negatively	Neutral	Positively	Very
	Negatively				Positively
G.I. Joes					
Video games					
Toy guns					
A toy kitchen set					
A toy doctor kit					
A toy nurse kit					
Toy cars					
Barbie dolls					
Toy dish set					

Military toys			
Baby dolls			
Toy trucks			
A toy tool kit			
Toy/costume jewelry			

Rate how you would feel about your future son (daughter) engaging in the following

activities on a scale of 1 to 5, where 1=very negatively, 3=neutral, and 5=very positively.

	1	2	3	4	5
	Very	Negatively	Neutral	Positively	Very
	Negatively				Positively
Driving a go-cart					
Playing football					
Playing baseball					
Playing soccer					
Setting the table					
Babysitting a sibling					
Cleaning his (her) room					
Sweeping the floor					
Taking ballet lessons					
Babysitting someone else's child					
Babysitting someone cise's cliffd					
Taking self-defense lessons					
Playing hopscotch					

Jumping rope			
Helping with the laundry			
Washing dishes			
Cutting the grass			
Taking out the garbage			
Cleaning the garage			
Taking karate lessons			
Roller blading/skateboarding			
Exploring the neighborhood on his			
(her) own			

#### **APPENDIX F**

### MEASURE OF PAST EXPERIENCES WITH GENDERED PLAY

### Child Gender Socialization Scale (CGSS; Adapted from Blakemore & Hill, 2008)

Please think about your own experiences as a child when answering the following questions. If you are unsure of an answer, consider thinking about your experiences as a six-year-old when answering the following questions.

Rate how you believe your parents felt about you playing with the following toys as a child (regardless of whether or not you owned and/or played with the following toys).

	1	2	3	4	5
	Very	Negatively	Neutral	Positively	Very
	Negatively				Positively
G.I. Joes					
Video games					
Toy guns					
A toy kitchen set					
A toy doctor kit					
A toy nurse kit					
Toy cars					
Barbie dolls					
Toy dish set					
Military toys					

Baby dolls			
Toy trucks			
A toy tool kit			
Toy/costume jewelry			

Rate how you believe your parents felt about you engaging in the following activities as a child (regardless of whether or not you actually participated in the activities).

	1	2	3	4	5
	Very Negatively	Negatively	Neutral	Positively	Very Positively
Driving a go-cart					
Playing football					
Playing baseball					
Playing soccer					
Setting the table					
Babysitting a sibling					
Cleaning his (her) room					
Sweeping the floor					
Taking ballet lessons					
Babysitting someone else's child					
Taking self-defense lessons					
Playing hopscotch					
Jumping rope					

Helping with the laundry			
Washing dishes			
Cutting the grass			
Taking out the garbage			
Cleaning the garage			
Taking karate lessons			
Roller blading/skateboarding			
Exploring the neighborhood on his			
(her) own			

#### **APPENDIX G**

### **MEASURE OF FEMINIST IDENTITY**

### Feminist Identity Composite (Fischer et al., 2000)

The statements listed below describe attitudes you may have toward women. There are no

right or wrong answers. Please express your feelings by indicating how much you agree or

disagree with each statement.

	Strongly agree	Agree	Neutral/ undecided	Disagree	Strongly disagree
I like women who are more "traditional."	0				0
I believe women are all angry at men and the ways they have been treated as women.					
I am very interested in women artists.					
I am ver interested in women's studies.					
I never realized until recently that women have experienced oppression and discrimination in this society.					
I feel like I've been duped into believing society's perceptions of women.					
I feel angry when I think about the ways women are treated by men and boys.					
Men receive many advantages in society and because of this are against equality for women.					
Gradually, I am becoming to see just how sexist society really is.					
Regretfully, I can see ways in which I have perpetuated sexist attitudes in the past.					
I am very interested in women musicians.					
I am very interested in women writers.					
I enjoy the pride and self-assurance that strong females have.					
I choose my "causes" carefully to work for greater equality of all people.					
I owe it not only to women but to all people to work for greater opportunity and equality for all.					
In my interactions with people of the opposite gender, I am always looking for					

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ways I may be discriminated against because of my gender.				
As I have grown in my beliefs, I have				
realized that it is more important to value				
women as individuals than as members of a				
larger group of women.				
I am proud to be a competent woman				
(man).				
I feel like I have blended my female (male)				
attributes with my unique personality				
qualities.				
I have incorporated what is female and				
feminine (male and masculine) into my own				
unique personality.				
I think it's luck that women aren't expected				
to do some of the more dangerous jobs that				
men are expected to do, like construction				
work or race car driving.				
I care very deeply about men and women				
having equal opportunities in all respects.*				
If I were married and my spouse was				
offered a job in another state, it would be				
my obligation to move in support of this				
career.				
I think that men and women had it better in				
the 1950s when married women were				
housewives and their husbands supported them.				
It is very satisfying to me to be able to use				
my talents and skills in my work in the women's movement.*				
I am willing to make certain sacrifices to				
effect change in this society in order to				
create a nonsexist, peaceful place where all				
people have equal opportunities.*				
I like the idea that men should offer women				
their seat on a crowded bus or open doors				
for them because they are women.				
On some level, my motivation for almost		 		
every activity I engage in is my desire for				
an egalitarian world.*				
I don't see much point in questioning the				
general expectation that men should be				
masculine and women should be feminine.				
			•	

I feel that I am a very powerful and effective spokesperson for the women's issues I am concerned with right now.*			
I think that most women will feel most fulfilled by being a wife and mother.			
I want to work to improve women's status.*			
I am very committed to a cause that I believe contributes to a more fair and just world for all people.*			

\*Although all items of the FIC were administered, only the indicated items on the Active Commitment

subscale were utilized in analyses.

# TABLES

# Table 1

# Descriptive Statistics for Female Participants

Variable	n	Mean	Standard	Range	Skew	Kurtosis	Internal
			Deviation				Consistency
Past experiences with toys	261	4.24	.69	2.75-5.00	42	-1.01	α=.95
stereotyped for girls							
Past experiences with toys	261	3.49	.87	1.00-5.00	25	00	α=.91
stereotyped for boys							
Feminist values	261	2.22	.65	1.00-4.29	.16	32	α=.87
Social desirability	262	.49	.15	.1691	.10	47	α=
Future daughter condition: toys	134	4.35	.67	2.88-5.00	66	70	α=.97
stereotyped for girls							
Future daughter condition: toys	134	3.97	.73	2.75-5.00	10	85	α=.90
stereotyped for boys							
Future son condition: toys	128	3.92	.73	2.00-5.00	09	45	α=.90
stereotyped for girls							
Future son condition: toys	128	3.81	.69	1.67-5.00	09	.31	α=.84
stereotyped for boys							

# Descriptive Statistics for Male Participants

Variable	n	Mean	Standard	Range	Skew	Kurtosis	Internal Consistency
			Deviation				
Past experiences with toys	139	3.08	.75	1.38-5.00	.72	.79	α=.86
stereotyped for girls							
Past experiences with toys	139	3.94	.69	2.50-5.00	.07	99	α=.86
stereotyped for boys							
Feminist values	139	2.62	.57	1.00-3.71	64	.11	α=.81
Social desirability	139	.47	.15	.1381	.09	39	α=
Future daughter condition: girls'	65	4.04	.67	3.00-5.00	.15	-1.22	α=.94
toys							
Future daughter condition: boys'	65	3.61	.72	2.17-5.00	.43	.79	α=.89
toys							
Future son condition: girls' toys	74	3.32	.73	1.50-5.00	.64	33	α=.73
Future son condition: boys' toys	74	3.83	.69	2.00-5.00	.06	33	α=.75
Future son condition: boys' toys	74	3.83	.69	2.00-5.00	.06	33	α=.75

Variable	Male Participants N	Female Participants N	Male Participants M	Female Participants M	t
Past experiences with girls' toys	139	261	3.08	4.24	-15.14*
Past experiences with boys' toys	139	261	3.94	3.49	5.64*†
Future daughter condition: toys stereotyped for girls	65	134	4.04	4.35	-3.03*
Future daughter condition: toys stereotyped for boys	65	134	3.61	3.97	-3.24*
Future son condition: toys stereotyped for girls	74	128	3.32	3.92	-5.59*
Future son condition: toys stereotyped for boys	74	128	3.87	3.81	.57
Feminist values	139	261	2.62	2.22	6.39*†
Social desirability	139	262	.47	.49	-0.99

Participant Gender Differences in Predictor Variables

<sup>†</sup>Levene's test for equality of variances was performed on all variables. When homogeneity of variance was not assumed, the t-scores were corrected. Corrected values are presented in this table.

Bivariate Correlations of Continuous Variables for Male Participants and Female Participants

Variable	Past experiences with girls' toys	Past experiences with boys' toys	Future daughter condition: toys stereotyped for girls	Future daughter condition: toys stereotyped for boys	Future son condition: toys stereotyped for girls	Future son condition: toys stereotyped for boys	Feminist Values	Social Desirability
Past experiences with girls' toys	1	.423**	.317*	.411**	.299**	.140	039	.041
Past experiences with boys' toys	.423**	1	.591**	.514**	.135	.658**	.097	.058
Future daughter condition: toys stereotyped for girls	.754**	.270**	1	.654**	-	-	017	064
Future daughter condition: toys stereotyped for boys	.496**	.484*	.712**	1	-	-	075	.082
Future son condition: toys stereotyped for girls	.367**	.500**	-	-	1	.204	.212	.167
Future son condition: toys stereotyped for boys	.236**	.332**		-	.234**	1	.041	.186
Feminist Values	.019	028	.018	.001	142	080	1	138
Social Desirability	038	.003	.022	.041	168	021	020	1

*Note.* Correlations for male participants are above the diagonal; correlations for female participants are below the diagonal. For number of male participants and female participants, see Table 3.

\*Denotes significance, p<.05.

\*\*Denotes significance, p<.01.

# Gendered Play Trichotomized Variable

		Female Participants (median=.00, SD=.77)		Participants		Participants imagining imagining daughters sons		imagining		imagining Participants imagining son		Participants (median=.38,		Participants imagining median=.38, daughters		Men in sons	nagining
	n	Range	п	Range	п	Range	п	Range	n	Range	n	Range					
Egalitarian Play	207	6775	108	50- .75	99	67- .75	109	37- 1.11	53	21- 1.00	56	37- 1.11					
Gendered Play	35	.83-2.80	26	.83- 2.38	9	1.14- 2.80	24	1.15- 3.50	10	1.15- 2.71	14	1.17- 3.50					
Outliers (opposite- gender play)	20	-3.33-(83)	0	-	20	-3.33- (83)	6	-3.00- (50)	2	62- (58)	4	-3.00- (50)					

Binary Logistic Regression for Female Participants

Variable	b	Odds Ratio [95% CI]	SE
Past experience with toys stereotyped for girls	1.93**	6.92 [2.96, 16.16]	.43
Past experience with toys stereotyped for boys	64**	.53 [.35, .79]	.21
Gender of hypothetical child (daughter)	.94*	2.56 [1.06, 6.15]	.45
Current identification with feminist values	25	.78 [.43, 1.40]	.30

\*Denotes significance, p < .05

\*\*Denotes significance, p < .01

Binary Logistic Regression for Male Participants

Variable	b	Odds Ratio [95% CI]	SE
Past experience with toys stereotyped for girls	91*	.40 [.20, .84]	.37
Past experience with toys stereotyped for boys	1.82**	6.19 [2.53, 15.12]	.46
Gender of hypothetical child (daughter)	35	.70 [.26, 1.90]	.51
Current identification with feminist values	.09	1.09 [.49, 2.44]	.41

\*Denotes significance, p < .05

\*\*Denotes significance, p < .01