

Describing the play of three-year-old children in the home context

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Abstract: This study examines play in the Finnish home context by specifically concentrating on the forms of play, quality factors of play and social nature of play. It is of particular interest to study play especially of three-year-olds, because the research on play for this group, in home environment is scarce especially in the Finnish context. This study is part of longitudinal, multidisciplinary study (STEPS) and is based on the responses from 921 families who answered the questionnaires both at the study recruitment point and at three years. The data were gathered during the years 2011–2013 for the first time ever from the Finnish home context and are a basis for research to be done later. There is a need for this kind of descriptive and identifying study to understand play in the home context. The results suggest that play, and especially playing outdoors, had a strong position in children's lives. Some forms of play were clearly gender-based and some demographic factors had a connection to the social nature of play. In addition, the level of participation in early childhood education and care was associated with play. No earlier studies have been conducted on the associations between participating in ECE and an increase in the sociability of play in the home context. Participating in ECE expands children's social network and promotes possibilities to form friendships. In public discourse, the need to increase children's participation in ECEC has been strongly emphasized. This research supports these views.

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Introduction

Although play is seen so critically important to children's physical and mental development and wellbeing that it is included in the article of United Nations Convention on the Rights of the Child (UNICEF, 1989), opinions on the nature of play have been controversial for many years in the field of educational studies. Play, as a phenomenon, is hard to define so that every researcher agrees on the term with the same conceptual clarity. Diversity in characterizing play can lead to a situation that research and results cannot be compared (Burghardt, 2012).

Despite several different perceptions of play, researchers have reached a consensus on one thing - play is seen as a mental process (Burghardt, 2012; Lillard, 2015), and it evolves and changes along with a child's age and development as well as during the actual play situation. Play is largely a social process (Burghardt, 2012; Eberle, 2014; Hakkarainen, 2001; Helenius & Lummelahti, 2014) and this socially structured process continues into adolescence, although the form of play naturally evolves. In the field of developmental psychology, play has often been designated using different criteria and/or stages. Although these criteria can vary depending on the point of view, it is common for all researchers to perceive play as voluntary, imaginary, self-rewarding, satisfying and pleasurable social process (e.g. Burghardt, 2012; Caillois, 2006; Eberle, 2014; Hughes, 1998; Kalliala, 1999).

Researchers and early childhood teachers agree on the importance of play (Hakkarainen et al., 2013; Lillard, 2015). It has been claimed that play is disappearing or at least radically diminishing in childhood

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and from children's everyday lives (e.g., Gray, 2011; Ginsburgh, 2007; Järvinen et al., 2012; Nicolopoulou, 2010; O'connor et al., 2017; Whitebread, 2012). In conjunction with this, there have been critical views expressed as to whether early childhood educators understand the meaning of play for children's well-being and development (Hakkarainen et al., 2013; Kalliala, 2008; Murray, 2018). Moreover, parents have received some criticism about their ignorance of children's play and its meaning for development and wellbeing. The value of play has been too often under valued according to several studies (e.g. Baluja et al., 2012; Bento et al., 2017; Ginsburg, 2007; Little et al., 2011). Although Heljakka (2024) is also concerned about the diminishing of play and its premature end, she doesn't fully endorse this point of view. She has studied the technologization of play in Finland between 2018 and 2022 and sees, instead of a decline in play, a transformation within play-viewing the digital world as an opportunity and gaming as one form of play.

A growing culture of fear about the possible accidents that might occur affect parents' and professionals' attitudes toward outdoor play, so children tend to be kept inside, occupied with structured activities, and controlled by adults (Brussoni et al., 2012; Singer et al., 2009). Many parents do not know how to support children's play and have a limited perspective about their role in joining children's play (Vandermaas-Peeler et al., 2012). This notion is interesting because the conceptions, beliefs, and values that parents have about what constitutes a good life and how to care and educate their child, as well as their attitudes toward play, child image, and concept of an ideal human being all influence a child's opportunity to play (Puolimatka, 1999).

According to Kalliala (2008) the circumstances needed for play to succeed should be noted. Adults can organize space, give time, and offer different kinds of toys and tools to children. Adults can also enrich play by offering experiences for their children such as going on trips or reading stories (Kalliala, 2008). A safe play environment is at the core of all activities, as children cannot fully engage in play if they feel unsafe. Therefore, in addition to the physical environment, it is important to also ensure the safety of the psychological environment, as young children need safe and sensitive adults around them (Kalliala, 2008). It is important that children have the opportunity to continue their play for as long as they want and have the opportunity to create play themselves because play should occur from the children's point of view (Bergström, 1997). When shifting the focus to the field of neuroscience, we can address the significance of play for development from the perspective of brain function. In order to thrive and adapt, the brain requires a neurotransmitter called dopamine. The shared joy generated by play connects individuals through strong dopamine activation (Sajaniemi et al., 2015).

To be able to promote children's opportunities to play at home, it is necessary to obtain more information about small children's play in home context. It is essential to discover, what and how children play at home and with whom they play because play and playfulness is significant in children's formation and maintenance of friendships, which are important in supporting healthy social and emotional development of a child (Panksepp, 2007). The importance of studying three-year-old children's play is based on the fact that, at this age, most children start their early childhood education and care (ECE) in Finland because that is when the parent's right to childcare leave ends and also because the social nature of play intensifies at the age of three.

Knowledge gained from home facilitates cooperation between parents and early childhood education when aim is to strengthen children's long-lasting play to continue and evolve. This study reinforces consistent guidance in play between home and early childhood education and enhances parents' understanding of the importance of play. Every environment around the child, from immediate environment (microsystem) concerning child's family to the relationship and interaction between educator and family (mesosystem) influence children's play (Bronfenbrenner, 1974).

Also, at the age of three, the perception of gender (i.e. the child's awareness of whether they are a boy or a girl) has been developed (Kohlberg, 1966; Martinez et al., 2020). This Kohlberg's theory of gender identity development has been later contradicted, but the influence of the social interaction and expectations towards children how to behave according to gender stereotype, is commonly acknowledged

(e.g., Paechter, 2007; Stainton-Rogers, 2003). In many studies (e.g. Boe & Woods, 2018; Mesman & Groeneveld, 2017; Morawska, 2020) evidence has been found that play is strongly gender-based. Boys and girls play differently using different kind of forms of play (e.g. Green et al., 2004; Sherman & Zurbriggen 2014) and also toy preferences are gender-typed (Zosuls et al., 2018). The aim of this study is to describe children's play in the home context—the forms of play, quality of play, and social nature of play - and to find out if gender, family factors (social status, income level, family structure, parent's current activity), and participation in ECE associates with children's play in the home context.

The Forms of Play, The Quality of Play, and The Social Nature of Play

Play can be divided and observed from either the perspective of cognitive development or social interaction (Whitebread, 2012). From the cognitive development point of view, play is categorized into different forms and examined play is examined based on its features because, in this way - when observing children, it can be discovered what children play and the extent of their repertoire of play. Each form of play supports different part in children's learning and development. In the field of the study, notion of the forms of play is quite unanimous, even though there are some slight differences between authors. In this study, the forms of play are derived from the most commonly occurring forms of play, for example, imaginary play, role playing, building, and playing with objects. Each form supports children's overall development (e.g. Parten, 1932; Piaget, 1972; Smith, 2005; Whitebread, 2012).

Play has already been divided into five social categories in the 1930s by Milfred Parten (Parten, 1932; see also e.g. Helenius, 2014). This basic categorization of Parten is still valid, although additions have been made over the years (see e.g., Garvey, 1990). These categories are not hierarchical, although they are partly age-related. The categories are onlooker behavior, solitary independent, parallel, associative, and cooperative play. In onlooker behavior, the child's play is apparently passive and can entail watching others. In solitary independent play, the child plays on their own. In parallel play, the child plays next to another child but without any clear interaction or joint play. In associative play, the child shares materials and talks to others, but there is lack of coordinative play activities and shared interests. In cooperative play, children organize their play toward some specific goal and negotiate roles (Parten, 1932). At the age of three, children's play increasingly evolves from solitary independent play into associative and cooperative play, although this transition is not hierarchical. In the play of three-year-olds, every social form from solitary to cooperative play can be observed, and the social nature of play can change depending on the situation (Smilansky & Shefatya, 1990).

In this study we focus on describing the amount of solitary play (playing alone), playing with others (with parents, siblings, other child) and the amount of onlooker play (child watches other children's play). The amount of playing alone and playing with other children are key factors when evaluating the social nature and promoting children's possibilities for social play with other children. Although an adult's guidance is significant for play to evolve, the most significant role in learning in play is with other children. When playing together with peers' children adopt and mirror from each other. The importance of peers needs to be emphasized compared to the importance of adults. Children learn to plan and negotiate together (Hännikäinen, 1995b; Kronqvist, 2006.)

When discussing the quality of play, we focus on the quantity and continuity of play, and concentration in play. These factors are present in play and parent's attitudes and actions; physical and emotional availability influences them greatly (Kalliala, 2008; Singer, 2009). According to Vuorisalo (2009) to enhance play, it needs time, space, toys, and other players. Play is so essential to children, as mentioned earlier, that when children can play as much as they want, they do play a lot and when they have possibility to continue the same play in the following day – they do. The continuity of play develops a child's memory and creates a basis for storytelling. At the same time, it is important to notice that duration of play or a single play situation can vary considerably for a three-year-old depending on what the children themselves value most in the situation. It is often more important to children to participate and to be able to affect to situation than how the play itself proceeds. The motives for play are then social and arise from the peer group (Vuorisalo, 2009).

Although we are talking about the quality of play, it is challenging to say that a certain kind of play is either good or bad. However, in the play of three-year-olds, the foreseeable elements are growing sociability, concentration, continuity, and role taking in play with the help of adults (Dunderfelt, 2011; Keltikangas-Järvinen, 2012). If children are not given the time, space, and the independence to develop their own spontaneous and self-initiated play, even the most skillful will not be able to play (Whitebread, 2012).

Importance of Play at Home Environment

Perhaps surprisingly, it is common in many studies for play to be regarded as only having instrumental value. As such, play has been seen to help children acquire academic skills: learning readiness, learning behaviors, and problem-solving skills (Coolahan et al., 2000). These studies have been conducted in official contexts like in early childhood education (ECE) while fewer studies have been conducted in the home context. However, in studies concerning play at home, the same instrumental role of play can be seen as in the formal education context (Lin and Li, 2018; LaForett & Mendez, 2017).

The amount of time families spend together has been progressively decreasing during recent years and this might influence also to the mutual playtime (Miettinen and Rotkirch, 2012). Parents have an essential role as being the first ones to enable small children's world of play (Lindqvist, 2001). The studies concerning play in the home context concentrate mainly on interaction between children and their parents (Lin and Li, 2018; Lyytinen and Lautamo, 2003; Runcan, 2012). There are no descriptive studies regarding the form of play, quality of play and social nature of play. In the home context, small children often play alone and parallel play and therefore, parents' involvement in the play situation and the joint play situation is important. This is because it gives the child the opportunity to practice their skills, limitations, and ability to learn to regulate their own actions and the interaction in the situation. However, if a parent has difficulties to interpreting child's initiatives and suggestions, the play situations are experienced to be difficult (Esdaile & Olson 2004). Adult guidance and involvement in play situations are essential in order to evolve long-lasting play (Lillard, 2015; Mikkola & Nivalainen, 2011). Home is a significant environment for a child's development, and play is a central part of this development.

By understanding how children play at home, we can gain valuable insights into how they develop cognitive, social, and emotional skills. Examining the amount of play is important because, it gives us an idea of how much time children spend playing at home. This can affect the opportunities they have, to develop various skills through play. Additionally, it is important to gather information about the social nature of play - whether children play alone or with other children. A large amount of solitary play may be a risk factor to child's social development and their ability to form and maintain relationships with others.

Finnish Families

In Finland, the number of families with underage children has been slowly falling over the past ten years. In the 1950s the percentage of families with children was 64.4% and in 2013 it had decreased to 39.1%, and in 2021 it was 37%. The most common family type, to which 43 % of the families belong to, continues to be the nuclear family - a married couple with one child (Official Statistics Finland, 2019).

The Participation rate in ECE in Finland is very low when compared to other OECD countries (OECD 2016.) The main reason for this is that Finnish society financially supports families in taking care of their children at home until children are three years old (Karila, 2016). Children under age three are mainly taken care at home, only about 30 % of children under age three are in ECE. About 68 % of Finnish three-year-old children and 75 % of four-year-old children are in ECE (OECD 2015). In summary can be said that family sizes are small and nearly 70 % of the children at the age of three-year-old, participate ECE services outside home.

Research questions

The aim of this study is to describe children's play in home context – the forms of play, quality of

play and social nature of play.

1. What forms of play do three-year-olds play at home, what kinds of quality factors of play can be found, and what is the social nature of play in the home context?
2. How do gender and family factors (social status, income level, family structure, parent's current activity), and participation in ECE associate with children's play in the home context?

Method and Participants

Participants were Finnish parents, whose children were born in the Hospital District of Southwest Finland. Originally 1797 mothers and 1658 spouses were recruited for the intense follow-up of this cohort study during the years of 2008 - 2010 (see Lagström et al., 2013 for more of the cohort and recruited). This part of the study is based on the responses of 921 families from 45 different municipalities from small- to large-sized cities, who answered the questionnaires both at the recruitment point and at three years. Most of the responses were given by mothers (95.9%) and only a small portion of the answers were given by fathers (4.1%). Due to the father's low response rate, the associations between background variables and children's play are examined based on mother's answers. The sample of the families is in mostly consistent with the family structure in Finnish society during the research period 2013, but the sampling differs at small scale regarding the structure of the family (see Lagström et al. 2013). Compared to the cohort population, the number of families with single parent was lower (4.3 vs 18%) and regarding marital status, cohabitation more prevalent (35 vs 18%) than among the study population. (See anonymous et al., 2013). The demographic information of the participating families is shown in Table 1.

Table 1. The distribution of data according to family (N=921) background variables

Variables*	N	%
Age	896	
< 25	43	4.8
25-35	693	77.4
> 35	160	17.9
Social Status	864	
Experts or senior executives	652	75.5
Other	212	24.5
Income level	903	
< 2000	181	20
≥ 2000	722	80
Family structure	899	
Nuclear family	710	79
Blended family	149	16.6
Single parent	40	4.4
Current activity	900	
Working full-time	396	44
Full-time parent	278	31
Other**	226	25

*Due to the father's low response rate, data gathered is based on mother's answers.

** Other: working part-time, on shift leave, unemployed, studying, on sick leave, retired. Note: N varies between different variables due to missing answers.

Instrument

The present data derives from the parent's self-reported answers to the questionnaires, which were prepared for the third year and distributed between the years of 2011-2013 (see Lagström et al. 2013). The questionnaire targeted to gain information about well-being and family contexts (somatic and mental health, living conditions, socio-economic factors, family functioning, family interaction and parenting) and the development of the child (temperament, cognitive and language development, gestures, play behavior, socio-emotional development and eating behavior). For this study, we applied the section measuring children's play, which included 19 items (11 items regarding children's form of play at home, 3 items regarding quality, and 5 items regarding the social aspect of play). All the items were assessed using Likert scale from 1 to 4 (1 = never, 2 = seldom, 3 = sometimes, 4 = often/a lot), and they are as follows.

Forms of the play:

1. Imaginary play (Batman, stories, movies)
2. Role playing
3. Building
4. Jiggshaw puzzles
5. Playing with toy cars
6. Playing with soft toys or dolls
7. Running games, hide-and-seek
8. Play with objects/toys
9. Playing games (e.g. cards)
10. Playing computer games
11. Playing outdoors

The Quality factors of Play:

1. Child plays a lot / quantity of play
2. Child changes the play often / concentration on play
3. Child continues unfinished play in following days / continuity of play

The Social Nature of Play:

1. Child plays alone
2. Child plays with other children (not siblings)
3. Child plays with a parent / parents
4. Child plays with other siblings
5. Child watches other children's play (looker-on)

When examining associations between the family and other variables for the quality of play (table 5), the variables were dichotomized and re-coded for the analyses as follows: the "quantity of play" was coded 0 for playing only a little (values 1–3) and 1 for playing a lot (value 4). "Concentration of play" was coded 0 for low concentration (values 3–4) and 1 for high concentration (values 1–2). Similarly, "continuity of play" was coded 0 for weak (values 1–3) and 1 for strong (value 4) continuity.

Like the quality of play, the items describing the social nature of play (see Table 6) were dichotomized and re-coded. For "playing alone," values 1–3 were coded as 0 meaning the child never/seldom/rarely plays alone, and value 4 was coded as 1 meaning the child often plays alone. For "playing with others," values 1–3 were coded as 0 meaning the child never/seldom/rarely plays with others, and value 4 was coded as 1 meaning the child often plays with others.

To discover the diversity in three-year-old children's play we formed an additive variable including all forms of play children were reported playing often. The scale for the "diversity of play" varied between 0–11.

Background variables in this study are the following ones: child's gender, the existence of siblings, income level, social status, current activity of the parents, family structure and child's participating in ECE. In actual questionnaire the age of the parents was originally continuous variable, in this article these variables were changed to a new three-class variables so that years from 17 to 25 got the value 1, years from 26 to 35 got the value 2 and years from over 35 got the value 3.

The parent's current activity was re-coded as working full-time and not working full-time. The parent's social class (manager, professional, technician/associate worker, skilled agricultural worker, forestry and fishing worker, craft and related trades worker, plant and machine operator, assembler, and other) was based on the International Standard Classification of Occupations (ISCO-08) made by International Labour organization (ILO) in 2008 (and was re-coded as a higher (at least professional) or lower (all others) occupational status. As independent variables, the existence of siblings and the level of income in the family were used in this study.

The existence of siblings was re-coded as follows: A child with no siblings was given a value 1 and a child with siblings was given a value of 2. In this study, the income level was re-coded to a family-level

income that was either under or over 2,000 euros per month; the classification is based on the definition of Statistics of Finland for the at-risk-of-poverty threshold (OSF, 2015).

For further analysis, dicotomic sum variable was made from the quality items: child plays a lot, child changes play often and child continues unfinished play next day. These items were originally scaled from 1 - 4: 1= never, 2 = seldom, 3 = sometimes and 4 = often/a lot. Child plays a lot was re-coded as 0 for not playing a lot/not focusing on play/ not continuing the play next day and as 1 for playing a lot/focusing on play/continuing the play next day.

Analysis

All statistical analyses were made using SPSS program (SPSS Manual, version 27). First, the descriptive statistics were observed to obtain a general impression of the children's play. Independent samples t-test were used to study the differences in play between boys and girls. P-value < 0.05 was considered statistically significant. In addition to the P-value, the substantive significance of the difference (the effect size) was reported. In this study we used Cohen's (Cohen, 1988) d value. When the effect size is 0.2, connection is considered weak. When d is 0.5, the connection is medium/strong and if d is >0.8, connection is very strong.

Second, a series of Crosstabs were conducted to examine the associations between family demographics, ECE participation, and the form, quality and social nature of play. The Chi-Square Test of independence was used to test the significance of the associations between the variables.

Ethical Considerations

This study is part of a longitudinal, multidisciplinary cohort study (STEPS study) that has been carried out since 2008. Ethics Committee and the Ministry of Social Affairs and Health has approved the study protocol in 2007. This authorization extends first seven years of the cohort study. Parents were notified with the option to discontinue at any point of the cohort study. Participation was voluntary and anonymity was guaranteed. After the recruiting process, families were kept informed with regular letters during the cohort research (see Lagström et al., 2013).

Results

In this section, we present the results concerning the questions: What forms of play do three-year-olds play at home, what kinds of quality factors of play can be found, and what is the social nature of play in the home context.

First we describe the forms and diversity of play, secondly the quality of play (quantity, concentration and continuity) and thirdly, the social aspect (playing alone, playing with others; parents; siblings; other children) of play at home. Then we present results related to the background—how gender, family factors (social status, income level, family structure, current activity), and participation in ECE associate with children's play in the home context.

The Forms of Play at Home

The five most common forms of play in the home context in order of preference were: playing outdoors, running games, hide-and-peek, building/blocking, role play and playing with objects/toys. As seen in Table 2, there were no differences between boys and girls in playing games, doing jigsaw puzzles, playing with objects, playing with computer or running games. Gender differences were found in the following forms: playing outdoors, block activities/play, role playing, playing with toy cars, playing with dolls and soft toys and pretending / imaginary play. Boys played more with toy cars and did blocking more than girls. On the other hand, girls played more with dolls and soft toys, and did more role playing. There was a statistical difference between the genders in two forms of play: playing outdoors and pretending/imaginary play. Boys played more outdoors than girls, and girls had more imaginary play than boys. Playing outdoors was the most common form of play compared to other forms of play, as 80% of the children were reported playing outdoors often or a lot. Looking at the diversity of children's play, no

differences between boys and girls were found. Majority of the three year olds (42%) played from five to six different forms of play at home ($M=5.1$, $SD= 1.729$).

Table 2. Forms of play in the home context and the differences in forms of play between boys and girls (independent samples t-tests)

Forms of Play	% ^a	Total (n=833)		Boys (n=431)		Girls (n=402)		<i>p</i>	<i>d</i> [*]
		<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>		
Playing outdoors	79.5	3.78	.644	3.82	.438	3.74	.507	.000	.168
Running games, hide-and-peek	67.3	3.63	.564	3.63	.567	3.63	.561	.963	-
Building/Blocking	61.0	3.53	.636	3.67	.522	3.38	.685	.000	.466
Role Play	60.4	3.45	.791	3.25	.870	3.65	.638	.000	.524
Play with objects	57.6	3.48	.674	3.51	.668	3.45	.680	.513	-
Play with Toy cars	50.1	3.19	.926	3.82	.803	2.52	.848	.000	1.95
Play with dolls or soft toys	42.7	3.10	.919	2.56	.848	3.67	.580	.000	1.53
Pretense/imaginary play	34.7	2.88	1.02	2.78	1.06	2.99	.968	.000	.280
Playing games (e.g. cards)	13.2	2.56	.834	2.44	.821	2.68	.831	.899	-
Doing jigsaw puzzles	40.8	3.22	.755	3.12	.770	3.34	.724	.831	-
Computer games	2.3	1.44	.742	1.42	.714	1.43	.771	.254	-
Diversity of Play ^{**}		5.1	1.729	5.42	1.82	5.67	1.98	.058	-

^apercentage of children playing a lot; ^{*} Cohen's *d*; ^{**} scale from 0-11. Notes: There were no differences in the diversity of play between children in the home context and those in ECE ($p > 0.05$).

Quality of Play at Home

The common features concerning the quality of play in the home context were that the most of the children played a lot at home and half of the children changed their play often and only one-fifth of the children often continued unfinished play in the following days. As seen in Table 3, no differences were observed between the genders regarding the quality of play, $p > .05$.

Table 3. Quality of Play at Home and the differences in the quality of play between boys and girls (independent samples t-tests)

Quality items of play	% ^a	Total (n=828)		Boys (n=429)		Girls (n=399)		<i>p</i>
		<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	
Plays a lot [*]	92.0	3.92	.192	3.92	.243	3.91	.285	.498
Changes play often ^{**}	54.4	3.51	.608	3.53	.576	3.50	.596	.888
Continues unfinished play next day ^{***}	17.7	2.77	.844	2.79	.814	2.76	.801	.575

Notes: a percentage of children playing a lot; ^{*} Quantity, ^{**} Concentratio; ^{***} Continuity.

Social Nature of Play at Home

Table 4 presents different aspects of sociability of children's play. The most common feature was that children played with their parents ($M=3.39$) and also that 35.7 % of the children played often alone ($M=3.24$). There was statistical difference between genders, suggesting that boys played more with a parent/parents than girls. There were no differences between boys and girls in other social factors of play.

Associations Between Background and Children's Play

Table 4. The Social Nature of Play and the differences between boys and girls (independent samples t-tests)

Social aspects	% ^a	Total (n=916)		Boys (n=477)		Girls (n=444)		<i>p</i>	<i>d</i> [*]
		<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>		
Plays alone	35.7	3.24	.647	3.23	.658	3.26	.031	.391	
Plays with a parent/parents	46.5	3.39	.632	3.45	.598	3.32	.661	.003	.200
Plays with siblings ^b	50.9	2.96	1.23	3.00	1.21	2.92	1.25	.362	
Plays with other children (not siblings)	28.9	3.08	.724	3.06	.744	3.10	.703	.423	
Watches other children's play	57.6	3.48	.674	3.51	.668	3.45	.680	.741	
	4.4	2.29	.777	2.28	.779	2.30	.775		

Notes: ^{*} Cohen's *d*, ^a percentage of children playing a lot b including only children with siblings (n=651)

Factors Associated with the Quality of Play (Including ECE)

Looking at the connections between background variables and different aspects of the quality of play, i.e. quantity, continuity and concentration, no significant associations were found. As seen in Table 5, all examined associations were statistically insignificant, $p > .05$.

Table 5. The associations between family and other factors to quality of play

Variables	Plays a lot ^a			Continues play next day often ^a			Concentrates to play often/ a lot ^b		
	n	%	X ² (df)	n	%	X ² (df)	n	%	X ² (df)
Gender			0.887(1)			0.024(1)			0.770(1)
Boy	440	52.3		474	51.9		454	52	
Girl	401	47.7		439	48.1		419	48	
Siblings			1.770(1)			0.205(1)			0.460(1)
Yes	600	75.9		117	72.2		254	29.1	
No	190	24.1		45	27.8		619	70.9	
Family Income			0.118(1)			0.066(1)			2.438(1)
<2000	368	45.8		71	46.7		377	45.1	
>2000	436	54.2		81	53.3		459	54.9	
Current activity			0.464(1)			1.250(1)			0.262(1)
Working fulltime	363	46.8		63	42.6		379	47	
Not working fulltime	413	53.2		85	57.4		14	42.4	
Social status of the family			1.770(1)			1.133(1)			1.549(1)
Experts or senior executives	600	75.9		120	78.9		620	75.8	
Others	190	24.1		32	21.1		198	24.2	
Structure of the family			0.154(2)			1.187(2)			1.393(2)
Nuclear family	706	79.2		129	82.2		676	79.2	
Blended family	147	16.5		22	14		142	16.6	
Single parent	40	4.5		6	3.8		35	4.1	
ECE			0.793(1)			3.697(1)			2.77(1)
Yes	544	91.4		95	16.0		573	96.6	
No	297	93.1		67	21.1		300	94.3	

Note: ^a Classified 1-3=0, 4=1, ^b Classified 3-4=0, 1-2=1; * $p < .05$, ** $p < .01$, *** $p < .001$

Factors Associated with the Social Nature of Play (Including ECE)

The existence of siblings, family income level, structure of the family, and parent's current activity were all associated with the social nature of children's play (Table 6).

Table 6. The associations between background factors to the social nature of play

Variables	Plays often alone			Plays often together		
	n	%	X ² (df)	n	%	X ² (df)
Gender			0.20(1)			0.003(1)
Boy (n=474)	167	35.2		137	28.9	
Girl (n=448)	162	36.2		127	28.4	
Siblings			16.869(1)***			3.822(1)
Yes (n=651)	206	31.7		175	27	
No (n=270)	123	46.1		89	33.5	
Family income			5.655(1)*			5.106(1)*
<2000 (n=181)	163	40.4		101	25.3	
>2000 (n=722)	155	32.7		153	32.2	
Current activity			5.535(1)*			4.203(1)*
Working fulltime (n=396)	126	32.0		125	31.9	
Not working fulltime (n=452)	179	39.8		115	25.5	
Social status of the family			0.20(1)			0.808(1)
Experts (n=652)	233	36.0		197	30.4	

Others (n=212)	77	36.5		57	27.1	
Structure of the family			3.686(2)			6.050(2)*
Nuclear family (n=710)	245	34.7		203	28.8	
Blended family (n=149)	61	41.2		37	25.2	
Single parent (n=40)	18	45.0		18	45.0	
ECE			12.085(1)***			15.108(2)***
Yes (n=600)	190	31.9		196	33.0	
No (n=320)	139	43.4		68	21.3	

Note: *p>.05, **p<.01, ***p<.001

Playing alone was more common for children who did not have any siblings. Moreover, in families with lower income – the children tended to play alone more. In addition, almost 40 % of the children whose parents were not working fulltime, often played alone. In families with a higher income level and in families where the parents worked full-time, children tended to play more with other children. Most of the children who played often with other children were from single-parent families. Children at home tended to play more alone than children who participated in ECE. Playing with other children in the home context (not with siblings) was more common for children participating in ECE than for children who did not attend ECE.

Discussion and Conclusions

This study examined play in the home context by concentrating especially on the forms of play, quality of play and the social nature of play. In general, children's play seemed diverse. The characteristics of play – the quality and social nature – did not differ between boys and girls; however, boys and girls played somewhat different forms of play. The study's findings indicate that children tended to play outdoors a great deal and that several forms of play were gender-based. There is also an indication that the repertoire of the play did not differ between children who had been entirely at home compared to children who had attended to ECE. It seems that, in general, children played a great deal in the home context. Thus, according to parents, play was not diminishing at all (cf. Gray, 2011; Ginsburgh, 2007; Järvinen et al., 2012; Nicolopoulou, 2010; O'Connor et al., 2017; Whitebread, 2012), and on the contrary, play seemed to have a strong position in Finnish children's lives at home.

According to reported answers of the parents, the majority of the three-year old children seldom played computer games at home. This result is convergent to earlier studies where young children's (under three-years) most common way to use digital devices was watching TV and not, for example, playing computer games (e.g. Korhonen, 2010; Tena et al., 2019). During the last decade, the digitalization of our society has taken a huge leap forward. If this study would be implemented now in the year 2023, the results would probably differ since digitalization has increased strongly in the whole of society and influences families' ways of spending time together. Homes can be seen as changing media environments for children, and the media use of children is related to time spent alone, with family members, and with friends (Repo&Valkonen, 2017). It is evident that media use influences children's play in the Finnish home context in ways that we do not yet fully know. According to Heljakka (2024) who has studied the technologization of play, says that it doesn't do justice to play if it's thought of solely as playing with toys or imaginative role-playing. According to a broad definition, for example, gaming can be considered play (Heljakka, 2024).

In addition, children were reported to play outdoors quite often, result that is contradictory to earlier international discussion (see e.g. Singer et al., 2009). In the field of early childhood education at the European level, playing outdoors has been seen as arbitrary (see e.g. Järvinen et al., 2012). Nevertheless, in these Finnish data, playing outdoors was extremely common for both boys and girls, for boys even more than girls. This perhaps indicates that in Finnish society outdoor activities are highly valued overall in every day lives and that the society and outdoor spaces are seen as very safe for children to play. According to Dodd et al., (2021) when parent's attitudes around risk-taking in play are more positive, children spend more time playing outdoors.

Boys and girls played different forms of play. This result concerning gender-based play supports earlier findings (e.g. Davis & Hines 2020; Green et al., 2004; Sherman & Zurbriggen 2014; Lew-Levy et al. 2019). According to Davis & Hines (2020) children's toy references are gender-related, girls prefer girl-related toys and boys prefer boy-related toys, girls also prefer more than boys - toys that has been classified as neutral. The differences between genders might be explained by different kinds of parenting, where gender acceptable behavior is influenced by gender stereotypes – for example girls are directed to play more inside and boys more outside. Morawska (2020) claims that this is because of subconscious thinking that girls need to be protected from injuries and boys are allowed to practice more risk-taking play. According to Finnish National Agency for Education (EDUFI, 2022) one core aim of ECE is gender equality. The foundation of educational work is based on perspectives of equality, gender equality, and diversity, which guide teachers in collaborating with families. ECE in Finland is gender-sensitive. The staff encourages children to make choices without being tied to stereotypical roles and expectations related to gender or other personal characteristics. Collaboration with families is planned and developed in a way that strengthens equality and gender equality, enabling the dismantling of traditional gender stereotypes. Based on this research, it can perhaps be concluded that families still need support and encouragement to create a gender-sensitive play environment and interaction in the home context. In early childhood education, it is increasingly important to strengthen and enhance collaboration with families regarding a gender-sensitive educational approach.

Slightly over one-third of the children played often pretend or imaginary play at home, boys less than girls - role playing was considered one form of imaginary play, and in this study, nearly 60% of the children often role played. Thus, together with pretend play, the most common form of play was imaginary play. This result is similar to earlier studies (see Cameron et al., 2011). In this study, parents answered a questionnaire where play was categorized into different forms and play was examined based on its features. The study was not designed to go any deeper into play situations—what happened inside the play—but it is very important to notice that almost every form of play might include imaginary play. For example, when a child is playing with toy cars or dolls or is building with blocks, the child can simultaneously imagine the cars to be a family and name them, present dolls as different roles, and use blocks to build a castle for toy animals. To deepen knowledge about imaginary play in general, it is necessary to study this further in the home context.

Concerning the quality of play (quantity, concentration and continuity of play) , it seems that in general, as mentioned at the beginning of this chapter – children played a lot at home context. Concerning the continuity of play, we found that children changed their play frequently. Only 18% of the children continued the same play the next day. Does this imply that the quality of this type of play is weak in the home context? Not directly because it is a natural phase of play in which the duration of the actual play situation varies, although there should also be long-lasting play in a three-year-old's life. As mentioned earlier, adults' interest and participation in play supports their child's play and focus (see Mikkola & Nivalainen, 2011; Lillard, 2015). The parents' role as an enabler in giving space and time for the same play to continue the next day requires adults to tolerate chaos at home. Thus, it is important to give knowledge to parents about the importance of long-lasting play in children's development and wellbeing. It would be relevant discuss the importance of play and observations related to children's play with parents. This way, we can promote the continuation of play between two different systems around the child. Shared knowledge gained from home might increase possibility for long-lasting play to continue and evolve when child is in transition from home (microsystem) to early childhood education environment (mesosystem). According to Bronfenbrenner (1974) the most important aspect is the cooperation between different developmental environments of the child, i.e., the functionality of the mesosystem.

When looking at the social nature of play, parents reported that 36% of the children aged three years frequently played alone at home. The change in Finnish family structure can perhaps be seen in this result. Due to the decrease in family size, children do not have peer playmates inside the family anymore. This is also a somewhat worrying result, as children can make permanent friendships even before their third birthday, so the aspect of evolving loneliness is seen here. From this point of view, it would be important

for the child to have different kinds of opportunities outside of the home to have contact with peers.

Almost 40% of the children with a parent that did not work full-time frequently played alone. This might be explained by the fact that children, whose parent is working full-time, tend to participate in ECE services outside the home and, because of this, they have the possibility to enhance social connections to other children and play opportunities. Children who play together with other children regularly came from single-parent families where the parent worked full-time. Participation in ECE seems to strengthen the social nature of play—children play more with other children in the home context if they have been involved in ECE. Earlier studies have mainly represented single parenting to be a risk factor for a child's welfare (see Forssén et al., 2009) rather than a strength to a child's development; however, here, especially in the social aspect of play, it enriches the child's development. No earlier studies have been conducted on the associations between participating in ECE and an increase in the sociability of play in the home context.

Participation in ECE did have a major influence on the sociability of play. Overall, children who participated in ECE played with other children and with their siblings more compared to children in home care. This is a significant result. Participating in ECE expands children's social network and promotes possibilities to form friendships. In public discussions, there is a very strong opinion that supports an increase in the number of children able to participate in ECE so that every child could benefit from it. This study supports these views.

The time that families spend together and especially time that parents are with their children has been shortened due to the busy weekdays, long working and studying days along with several hobbies (Järvinen et al., 2012). In addition all parents don't have skills to play with their children (Komi, 2014a). Parent's self-efficacy is associated to the way children approach play (motivation to play) and in turn children's motivation and positive feed-back during the play has effect on parent's self-efficacy (see Román-Oyola et al., 2018). On the other hand, during the COVID-19 pandemic, the time families spent together grew significantly because of the isolation regulations, which caused ending children's participation in ECE and hobbies outside the home. Also, the time that the father and children spent together increased during the pandemic in Finnish families (Nurhonen et al., 2021). Although the time spent together grew, there is no knowledge about how the pandemic directly influenced children's play at home.

In the next chapter we present limitations of this study, but this study also has strengths. It can be seen as the first large quantitative study from three-year-old children's play at home in Finland—subject to where preface information of this phenomena is necessary to obtain. It is necessary to repeat this quantitative inquiry to compare possible changes in play during the past 10 years. On the other hand, for example, results concerning gendered play are consistent with contemporary studies, where the home environment for play is gendered (see MacPhee et al., 2019; Mesman & Groeneveld, 2017). The question regarding the parent's ability to offer non-gendered play environments for children is still essential.

Limitations and Further research

In this study, the limitations first concern the method of implementing the study. In this kind of survey study, the possibility that respondents have understood questions differently, such as questions regarding the forms of play, quality and social nature of play and the concepts of play, might differ among parent's and therefore influence their answers. The Likert scale (were options varied from never, rarely, seldom and often) might confuse some parents. It might be difficult to evaluate the difference between options, for example between seldom and rarely.

Second, limitations regarding the choices made in processing the variables, can restrict the results. This appears especially in the social aspect of play, were only two items (playing alone and playing with others) were selected to represent the social nature of play. This was done due to stress of other children's importance to social play (see Hännikäinen, 1995b; Kronqvist, 2006).

Third, using data that has been obtained during the years 2011–2013 does not necessarily describe

the forms of play, the quality of play, nor the social aspect of play in 2023. So, these results are not directly generalized to 2020's.

Playing computer games had a minor role during years 2011-2013. Future research could concentrate to find out have digital games taken over space from other forms of play in children's lives compared to the results here. Compared to classification of forms of play in this study, it is necessary in a future study to expand computer play to digital play, where interest lies on the social aspect of play. How does digital play influence children's development of social skills and time spent with other children and, in addition, how is digital play connected to development of compassion?

Future research could focus on finding out how much parents spent time with their children and how do they evaluate themselves as players – how does the parents self-efficacy and conceptions as players effect to their engagement and interest to support childrens play at home context. Interest lies also in the continuity of play – what kind of actions and conditions long-lasting play needs to transfer from ECE to home and vice versa.

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