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HOME-BASED PARENTAL INVOLVEMENT IN CHILDREN WITH AND CHILDREN WITHOUT INTELLECTUAL DISABILITIES IN TÜRKIYE

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Abstract: This study examines home-based parental involvement in children with and children without intellectual disabilities, with a particular focus on the factors influencing parental involvement in the activities and play of children. The data were collected from 223 mothers using the Parent Interview Form. The findings reveal that both parents engaged significantly more in activities with children who had intellectual disabilities than with children who did not. Mothers reported that, in general, they were more involved than the fathers were in their children's activities and play. Family income, mothers' education level, and the number of children at home were shown to be crucial factors in parental involvement. The results may guide interventionists as to which activities and types of play parents should be encouraged to participate in more with their children, especially those with intellectual disabilities. Key points are: (a) parents of children with intellectual disabilities demonstrated greater involvement than did parents of children without disabilities; (b) the most common activity among parents of children with intellectual disabilities was going out with their children while reading aloud was the least common; (c) physical play was preferred by parents of children with intellectual disabilities and by fathers of children without disabilities; and (d) a noteworthy correlation exists between the frequency of parental involvement with children with intellectual disabilities and two key factors: the number of children in the family and the mother's education level.

Keywords: home-based involvement, children with intellectual disabilities, play, parental involvement, mother involvement, father involvement

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To researchers, parental involvement (PI) is a multifaceted and complex construct (Epstein, 1995; Fantuzzo et al., 2000) that subsumes a variety of the behaviours and practices that parents use to promote the learning, development, and wellness of their children (Fantuzzo et al., 2004). Parents helping their children with school-related tasks and engaging in intellectual activities with children at home can be considered home-based parental involvement (HBPI; Pomerantz et al., 2007). HBPI in activities such as reading aloud, playing games, going shopping, and going out are all thought to help create a stimulating environment for children (Epley, 2013), as they provide natural learning opportunities (Dunst et al., 2006; Dunst et al., 2000). As recognition of the importance of HBPI in early childhood has continued to grow, it has received increased attention from researchers (Yotyodying & Wild, 2014). HBPI is associated with academic success in children (Fan & Chen, 2001; Singh et al., 1995) and how well they adjust to school (Barger et al., 2019; Serna & Martínez, 2019). The frequency with which parents read aloud to their children has been reported to correlate with the development of children's vocabulary and comprehension skills (Farrant & Zubrick, 2013), as well as their learning-related skills (Hindman & Morrison, 2012; LeFevre et al., 2009) and peer-play competencies both at school and home (Fantuzzo et al., 1999).

The quality and quantity of HBPI are both influenced by many factors related to the socioeconomic status of parents, including their levels of education and income, and their employment status (Aldossari, 2021; Fantuzzo et al., 2004; Fantuzzo et al., 2000). Additionally, the gender of parents is a significant factor related to HBPI, with mothers tending to be more involved in child-rearing activities, and fathers in children's play (McBride & Mills, 1993). Rispoli et al. (2018) found that many studies have investigated PI and its effects on development in children without disabilities (CWODs), while studies focusing on HBPI in children with disabilities are limited (Aldossari, 2021; Hong & Jeong, 2021; Wahyuni & Mangunsong, 2022).

Early studies of PI in special education focused primarily on parent education and training intending to improve the success of parents in teaching their children new skills and controlling their problem behaviours (Baker et al., 2004; Bennett & Algozzine, 1986; Harris et al., 1982; Heifetz, 1977). Cone et al. (1985) examined PI in children with disabilities from another perspective, investigating a spectrum of parental contributions ranging from educating children at home to collaborating with non-governmental organizations to secure a better education and better lives for the children. Lasky and Karge (2011) identified the benefits of PI in specific school activities on the behaviours and development of children with disabilities. Another group of researchers identified a significant relationship between parent–teacher interaction and HBPI (Rispoli et al., 2018), and a link between PI in everyday learning activities and the academic, social, and behavioural performance of children with disabilities (Epley, 2013). Various studies have focused on HBPI in children with disabilities and parents' engagement in children's play, emphasizing the beneficial effects of parent–child play on the development of children (Brodin, 1999, 2005; Iltus, 2007; Lewis et al., 2000). Although studies have highlighted the significance of various types of PI in children with disabilities, there is limited information on factors that

influence parents to participate in the activities and play of children with intellectual disabilities (CWIDs).

Motivation for the Study

Previous studies conducted in Türkiye indicated that having a child with disabilities affects the parents' quality of life and sense of competence (Meral & Cavkaytar, 2014; Turan Gürhopu & Dalgıç, 2017), an effect also noted in international research (e.g. Epley, 2013; Yotyodying & Wild, 2016). Despite studies investigating the impacts of having children with disabilities on parents' needs and stress levels (Kaytez et al., 2015), on family relationships (Sivrikaya & Çiftçi Tekinarslan, 2013), and in other areas, there is a lack of studies examining the types and frequencies of involvement of these parents in their children's activities and play. The first studies focusing on PI with children with disabilities in Türkiye emerged in the 1980s through training programs designed to address the needs of both parents and children: one with CWIDs (Akkök, 1984) and one with hearing-impaired children (Ünlü, 1986). In the 1990s, two studies revealed that PI was largely confined to collaboration with teachers and practising new skills at home based on teachers' suggestions (Sucuoğlu, 1996; Sucuoğlu et al., 1994). Additionally, the training programs concentrated on enhancing parents' ability to instruct their children in new skills and to address problem behaviours (Cavkaytar, 1999). In the 2000s, PI programs gained popularity, and many programs were developed to address disabilities (Acar et al., 2016; Olçay-Gül & Tekin-İftar, 2016; Sardohan-Yıldırım & Akçamete, 2019; Tekin-İftar, 2008). Recently, Sucuoğlu and her colleagues (2020) posited that the socioeconomic characteristics of the family, the developmental level of the children, and the size of the family are associated with the quality of the home environment. However, the frequency of maternal involvement in children's activities emerged as the primary predictor of the quality of the home environment.

In conclusion, although previous research examined various aspects of parenting children with disabilities, including stress, family relationships, and training programs, there is a notable absence of studies that have specifically investigated the types and frequencies of HBPI in children's activities and play, particularly in Türkiye. The present study aims to address this gap by investigating HBPI for both CWIDs and CWODs. To deepen our understanding of HBPI in this context, this study compared frequencies of maternal and paternal involvement in the activities and play of their CWIDs and CWODs, and identified factors related to HBPI. The following questions were addressed:

1. Are there significant differences in the frequencies of maternal and paternal involvement between CWIDs and CWODs?
2. In what types of play do fathers and mothers of CWIDs and CWODs get involved?
3. Do children's and parents' variables exhibit any relationships with HBPI?

Method

This study is part of a project investigating the quality of the home environment of CWIDs and CWODs. As a descriptive study, the aim is to understand HBPI by gathering data from the mothers of these two groups of children.

Participants

Mothers of CWIDs (n = 94) and CWODs (n = 129) whose children were 34 to 77 months old were included in this study. Demographic information about the children and their mothers is presented in Table 1. The CWIDs were diagnosed in hospitals based on international diagnostic criteria, while the CWODs had no history of any developmental problems according to their mothers. Mann-Whitney U tests revealed that there were significant differences between the education (U = 4,857, $p < .01$) and income (U = 5,041, $p < .05$) levels of mothers of CWIDs and CWODs in favour of the latter. In contrast, there were no significant differences in the families of CWIDs and CWODs regarding the number of children and the number of working mothers.

Table 1. *Demographic Characteristics of the Study Groups*

Characteristic	CWIDs (n = 94)	CWODs (n = 129)
Children		
Age	$\bar{X}$= 56.9 *SD* = 9.45 Range: 34–77 months	$\bar{X}$= 58.0 *SD* = 10.55 Range: 35–77 months
Gender		
Girls	37 (39.4%)	43 (33.3%)
Boys	57 (60.6%)	86 (66.7%)
Mothers		
Education	$\bar{X}$= 11.34 *SD* = 4.07 Range: 0–17 years	$\bar{X}$= 12.4 *SD* = 4.22 Range: 0–18 years
Income (Turkish Lira-₺)	$\bar{X}$= 4,079.8 *SD* = 2,595.85 Range: 1500–12000 ₺	$\bar{X}$= 5,004.7 *SD* = 3,266,61 Range: 400–18000 ₺
Working status		
Working outside the home	31 (33%)	60 (46.5%)
Housewife	63 (67%)	69 (53.5%)
Number of children	$\bar{X}$= 1.98 *SD* = 1.087 Range: 1–8	$\bar{X}$= 1.92 *SD* = 0.816 Range: 1–5

Data Collection Tools

Demographic Information Form

A demographic information form was used to collect information about the children and their mothers, including the mother's age, education level, family income, and the number of children at home, as well as the children's ages and diagnoses.

Parent Interview Form

The use of short scales is very popular and widespread in education and psychology (Kruyen et al., 2013; Czerwiński & Andzej-Atroszko, 2021), with advantages such as reduced cost and time required for studies involving the collection of data from large groups, avoidance of negative reactions and fatigue in participants (Bai et al., 2008; Kemper et al., 2018; Putnam & Rothbart, 2006), and improved participation rates (Edwards et al., 2004). In this study, data were collected using a self-report short scale, comprising five questions related to HBPI.

The development of the Parent Interview Form was based on previous studies investigating the home environment (Biedinger, 2011; Bradley, 1988, 2015; Iltus, 2007), the home learning environment (Epley, 2013), family-care behaviours (Frongillo et al., 2017), and naturally occurring learning opportunities in which parents and children engage together (Dunst et al., 2000). Parents are asked about five behaviours that are considered indicators of HBPI. The form contains two sections, one assessing the types and amount of HBPI, and one evaluating the types of play in which parents engage with their children at home.

The amount of HBPI: The first section comprises five questions on the frequency of HBPI in the activities of the respondents' children: (a) reading aloud or looking at books, (b) telling stories, (c) singing songs, (d) going out, and (e) teaching numbers or letters and doing artwork together. Due to the unwillingness of fathers to participate, only mothers were interviewed. They were asked to respond to each question with the approximate number of times they and their husbands had been involved in the activity over the last 3 days.

A two-factor analysis with oblimin rotations revealed that this part of the Parent Interview Form constituted a one-factor instrument with five items (Eigenvalue larger than 1, for both mothers and fathers). The factor loadings of the items varied between .36 and .76 for mothers (accounting for a total variance of 54.5%), and .52 and .71 for fathers (accounting for 59.2%), and the Parent Interview Form could be considered a reliable tool for the assessment of the HBPI of both parents, with Cronbach alpha values of .47 for mothers and .58 for fathers which fall within the acceptable range (Taber, 2018). To identify whether the involvement of mothers and fathers of CWIDs and CWODs differed, and to investigate the relationships between HBPI and the variables related to children and parents, the HBPI score (the frequencies of the involvement behaviours of parents) was calculated by total frequencies reported by mothers for each type of involvement.

The types of play in which parents are involved: The mothers were asked, "What kinds of games do you/does your husband play with your child?" They provided lists of the games played with their children, with one list for themselves and one for their husbands. Since the games listed were ones in which the child and parent participated together, they were all considered to be social play. Based on the categorizations of Sheridan et al. (2010) and Whitebread et al. (2017), the games listed were then divided into five groups: physical play (e.g., rough-and-tumble), play with objects (e.g., arranging building blocks), symbolic play (e.g., joke-telling), sociodramatic play (e.g., role-playing), and games with rules (e.g., hide-and-seek).

Data Collection and Analysis

We collected data from 233 volunteer mothers of CWIDs (94) and CWODs (129). Parents were recruited through preschools, rehabilitation centres, and daycare centres in Ankara, Türkiye. Although the instruments were self-report scales, to prevent data loss we interviewed the mothers individually, reading all questions aloud and recording their responses. The interviews were conducted in quiet rooms at the centres, each session lasting an average of 45 minutes. After completing the descriptive analysis, including Kolmogorov-Smirnov normality values, means, and standard deviations, we first compared the HBPI scores of parents with a Mann-Whitney U test due to the violation of the normality assumptions. Second, to understand the types of play in which parents engaged, we calculated the numbers and percentages reported for parents of CWIDs and CWODs separately. Third, to examine the relationships between HBPI scores, family income, and the number of children in the family, Spearman's rank correlation coefficients were calculated for both groups of children. Finally, Mann-Whitney U tests were conducted to determine whether mothers' and fathers' HBPI scores differed based on the mothers' employment status.

Ethical Considerations

Ethical approval was granted by the Hacettepe University Human Research Ethics Committee (application number E-35853172-600-00001564213; approval received April 27, 2021). Potential participants were informed about the research process, assured that they could withdraw their participation at any time, and told that they would be asked how often they had participated in various activities with their children in the last 3 days. As only mothers agreed to participate in the study, they were asked if they could answer these questions on behalf of the fathers. The mothers assured us that they were accustomed to speaking on the fathers' behalf regarding studies, practices, and activities conducted in special schools, centres, and preschools. It was explained to each mother that data collection would take place in person, and the process could be completed in approximately 10 minutes. It was emphasized that all collected data would be kept confidential and used for scientific purposes only. Mothers were then requested to confirm their voluntary participation. Confidentiality was ensured by numbering all demographic information forms and Parent Interview Forms to preserve anonymity and storing all data in locked folders in the researchers' laptops.

Results

Descriptive Statistics

Table 2 shows the mean total frequencies of HBPI with CWIDs and CWODs. The frequency of HBPI of CWIDs was greater than that of parents of CWODs.

Table 2. *Descriptive Statistics and the Results of Normality Analysis*

Involved parent	Children	*n*	$\bar{X}$	*SD*	Range	P*
Mother	CWIDs	94	8.29	3.54	0–15	.078
	CWODs	129	6.64	3.94	0–15	.016
Father	CWIDs	94	2.91	2.76	0–10	.000
	CWODs	129	1.99	2.31	0–8	.000

*Kolmogorov-Smirnov normality test.

Home-Based Involvement of the Parents of CWIDs and CWODs

The HBPI scores of the two groups of parents were compared using Mann-Whitney U tests, which showed that the mothers' and fathers' involvement in activities with CWIDs and CWODs was significantly different in favour of CWIDs. That is, mothers and fathers of CWIDs seem to be more engaged in the activities of their children than parents of CWODs are (see Table 3).

Table 3. *Mann-Whitney U Test Results for Comparison of the Total Frequencies of Involvement Behaviours of Parents of CWIDs and CWODs*

Involved parent	Children	*n*	Mean rank	Sum of ranks	U*
Mother	CWIDs	94	127.59	11,993.5	4,597.5
	CWODs	129	100.64	12,982.5	
Father	CWIDs	94	126.51	11,891.5	4,699.5
	CWODs	129	101.43	13,084.5	

*$p < .01$.

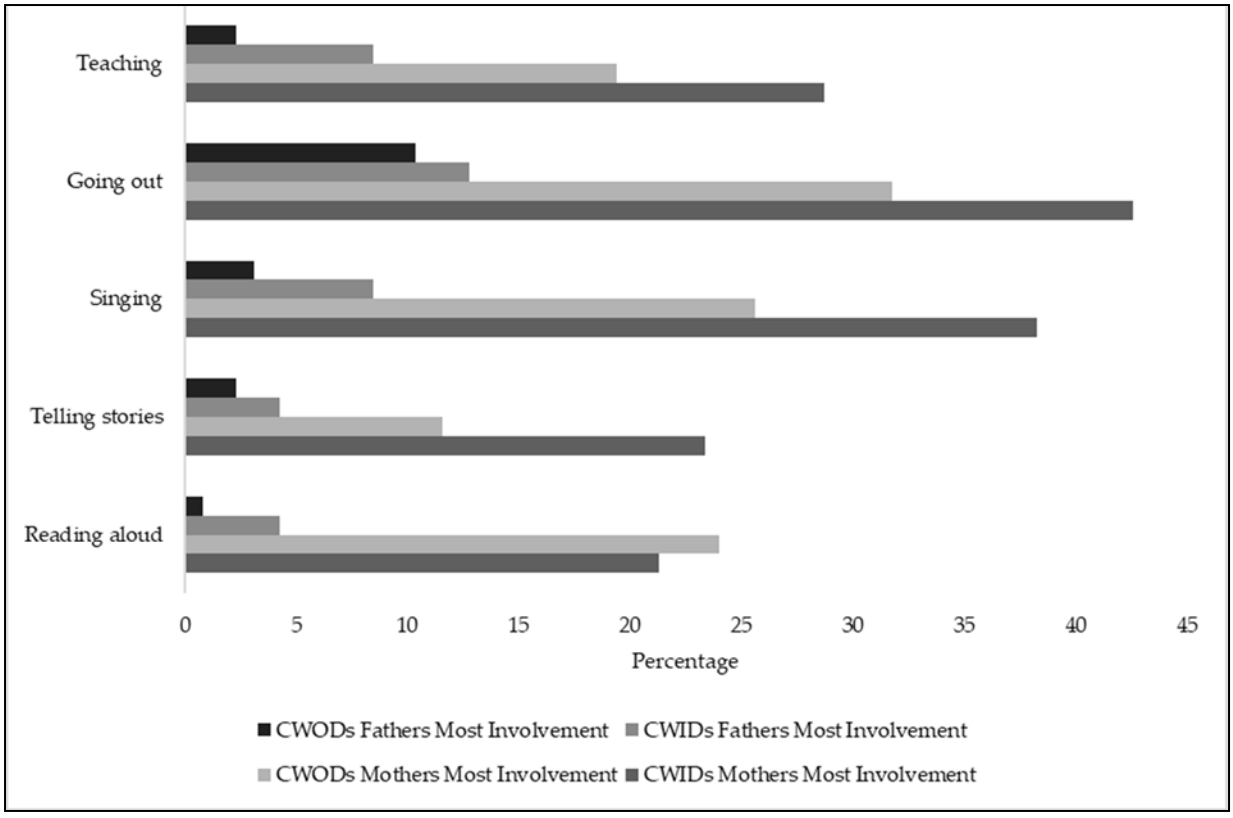
For each activity with CWIDs and CWODs, Table 4 shows the numbers and percentages of parents who were involved the most (those who had been involved in the activity more than three times within the last 3 days) and least (no involvement at all). For all activities, and both groups of children, the father's involvement was found to be lower than that of the mothers. A significant percentage of mothers of CWIDs (42.6%) and CWODs (31.8%) reported going out with their children, while only 21.3% of CWID mothers and 24% of CWOD mothers reported reading aloud to their children. As with the mothers, a higher percentage of fathers reported going out with their children compared to those who engaged in other activities; again, this was true for both groups of children. Table 4 shows that the majority of fathers were not routinely involved in their child's activities. Similarly, Figure 1 illustrates the differences in the most common types of involvement between mothers and fathers, highlighting that HBPI with CWIDs was predominantly maternal.

Table 4. *HBPI in Activities with CWIDs and CWODs: Most and Least*

Children	Activity	Mother involvement				Father involvement			
		Most		None		Most		None	
		n	%	*n*	%	*n*	%	*n*	%
CWIDs	Reading aloud	20	21.3	74	78.7	4	4.3	90	95.7
	Telling stories	22	23.4	72	76.6	4	4,3	90	95.7
	Singing	36	38.3	58	61.7	8	8.5	86	91.5
	Going out	40	42.6	54	57.4	12	12.8	82	87.2
	Teaching	27	28.7	67	71.3	8	8.5	86	91.5
CWODs	Reading aloud	31	24.0	98	76.0	1	0.8	128	99.2
	Telling stories	15	11.6	114	88.4	3	2.3	126	97.7
	Singing	33	25.6	96	74.4	4	3.1	125	96.9
	Going out	41	31.8	88	68.2	13	10.4	116	89.9
	Teaching	25	19.4	104	80.6	3	2.3	126	97.7

Note: Most = The parent was involved in the child's activity more than three times in the last 3 days. None = The parent was not involved in the child's activity at all.

Figure 1. *Levels of Involvement in Child Activities by Parental Gender and Type of Child*



The Types of Play Parents Engaged in With Their CWIDs and CWODs

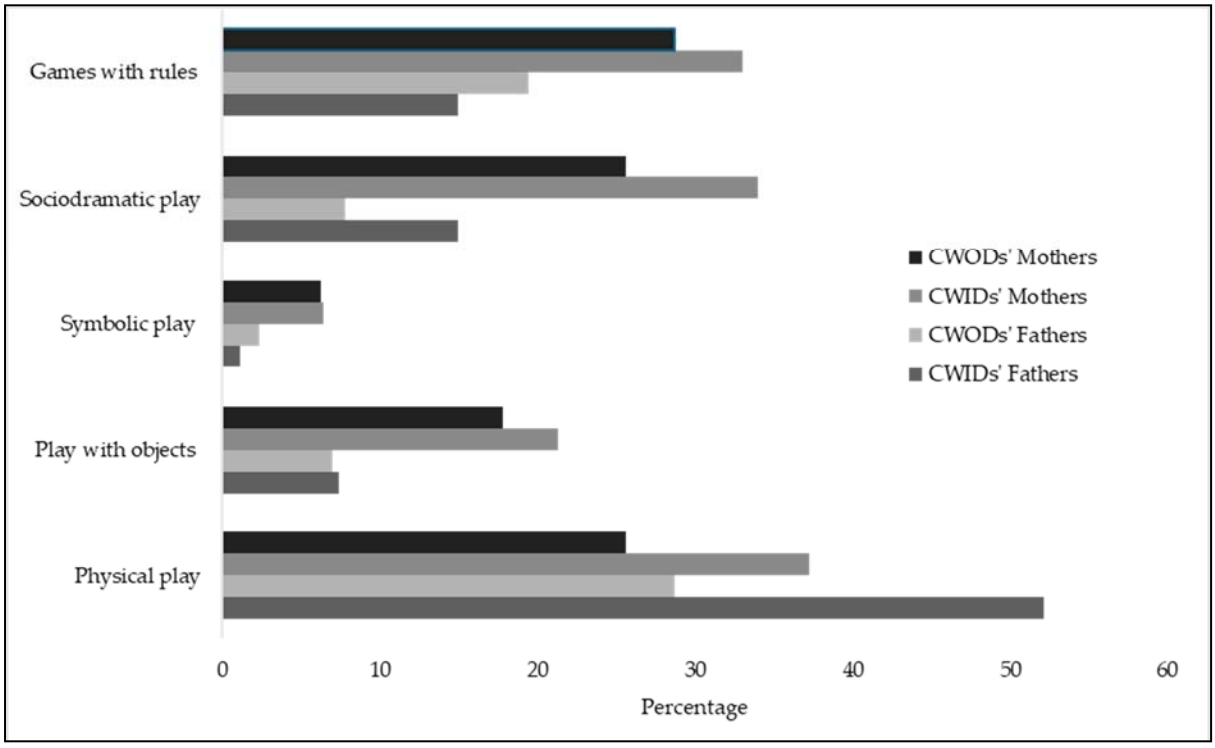
Table 5 provides a summary of the involvement of parents of CWIDs and CWODs in different types of play. Analysis of Table 5 and Figure 2 shows that the distribution of play types engaged

in by parents of both CWIDs and CWODs is similar, with fathers mostly engaging in physical play. Mothers of CWIDs also engaged in physical play more often than other types, while mothers of CWODs were mostly involved in games with rules. Symbolic play was the type of play least frequently engaged in. Overall, except for physical play, more mothers than fathers were engaged in their children's play, and mothers and fathers both had low rates of symbolic play, play with objects, and sociodramatic play.

Table 5. *HBPI in Types of Play With CWIDS and CWODS*

Children	Type of play	Mother		Father	
		n	%	*n*	%
CWIDs	Physical play	35	37.2	49	52.1
	Play with objects	20	21.3	7	7.4
	Symbolic play	6	6.4	1	1.1
	Sociodramatic play	32	34.0	14	14.9
	Games with rules	31	33.0	14	14.9
CWODs	Physical play	33	25.6	37	28.7
	Play with objects	23	17.8	9	7.0
	Symbolic play	8	6.2	3	2.3
	Sociodramatic play	33	25.6	10	7.8
	Games with rules	37	28.7	25	19.4

Figure 2. *Levels of Involvement in Children's Play Types by Parental Gender and Type of Child*



Variables Related to PI

We determined the variables related to HBPI in two steps. First, to investigate the relationship between the involvement of mothers and fathers and the variables of maternal age, the mother's education level, family income, and the number of children at home, we calculated Spearman-Brown correlation coefficients. The results revealed that (a) family income had a negative relationship with the involvement of mothers in CWODs ($r = -.259$; $p < .01$), (b) for CWIDs, significant relationships existed between the mother's education level and the total involvement of mothers ($r = .313$; $p < .01$) and of fathers ($r = .246$; $p < .05$), (c) the number of children in the family had a negative but significant relationship with father involvement with CWIDs ($r = -.262$; $p < .05$), but no relationship with involvement by either parent with CWODs. In the second step of this analysis, the Mann-Whitney U test revealed no significant differences between the involvement scores of mothers working outside the home and those who did not.

Discussion

This study builds upon earlier research on parental behaviours regarding the quality of the home environment (Biedinger, 2011; Iltus, 2007; United Nations Children's Fund, 2022), family care behaviours (Frongillo et al., 2017), and naturally occurring learning opportunities at home (Dunst et al., 2006). We defined HBPI by the type and frequency of five specific activities in which parents participated with their children. To understand HBPI for CWIDs and CWODs, we examined the types and frequencies of involvement in these activities among two groups of parents, and the types of play in which they engaged.

As the first finding of the study, the level of involvement of the parents of CWIDs was found to be greater than that of the parents of CWODs, although the types of activities in which the parents engaged were similar. As studies examining HBPI of children with and without disabilities are scarce, we were unable to compare the findings of this study with reports from previous literature. Therefore, we interpreted the level of HBPI in children's activities as resulting from parents' efforts to promote their children's learning and development (Epley, 2013; Ma et al., 2016) within a stimulating home environment. Dunst et al. (2006) claimed that naturally occurring daily activities (e.g., reading books, telling stories, and playing games), and activities such as birthdays and picnics in which family and children engage together, create opportunities for interactions that facilitate learning (Foster et al., 2005; Melhuish et al., 2008). Although Epley (2013) reported that the relationship between PI in home learning activities and the academic and social development of CWIDs is unclear due to the paucity of studies and their inconsistent findings, our finding of greater HBPI with CWIDs than with CWODs is relevant to those whose goal is to increase opportunities for parent–child interaction and support the development of children. It should be noted that in examining the involvement of mothers and fathers of CWIDs and CWODs we only investigated the types and levels of involvement: difficulties that arose during such involvements fell outside the scope of the study. As parents of CWIDs face significant

challenges in understanding how best to play with and teach their children (Bailey et al., 1992; Palisano et al., 2010), future studies could examine the quality of HBPI rather than the types and levels of involvement. Information about how parents engage in their children's daily activities and the challenges they face may be of great interest to professionals seeking to promote PI.

Among the activities in the Parent Interview Form, the most common for parents of CWIDs was going out with their children, while reading aloud was the least common. Parents of CWIDs are generally aware of their children's developmental and learning problems and frequently stress the need to stay informed regarding the developmental level of their children and the best way to support their education (Bailey et al., 1992; Cavkaytar et al., 2014). They have much lower expectations regarding the academic outcomes of their children than do parents of CWODs: they do not prioritize literacy development and they have low expectations of their CWIDs concerning reading and writing (Marvin & Mirenda, 1993), especially of those with multiple disabilities (Marvin, 1994). We speculate that the parents of CWIDs in this study may have had low expectations of their children for language and comprehension skills and may thus have considered reading books to be an inappropriate activity. Additionally, the families of both CWIDs and CWODs had low average monthly incomes (4000–5000 ₺, or about 210–260 US dollars), which may have been a barrier to purchasing books, and thus a further discouragement to reading as an activity. In contrast, mothers frequently went out with their children, mostly to malls and parks. It should be noted that this form of involvement is not aimed specifically at promoting children's development, and that parents may opt to go out with their children simply to spend time with them.

According to the American Academy of Pediatrics, PI in play is crucial for both child development and forming a healthy bond between the parent and child (Milteer et al., 2012). The parents of both CWIDs and CWODs relied on play as an important form of interaction, one that has been shown to benefit children with various special needs (Childress, 2010). In addition to determining the frequency of HBPI in each activity, the current study sought to understand the types of play in which parents were involved. To this end, the mothers listed the games that they or the fathers engaged in. The percentage of parents who engaged in play with their children was similar for CWIDs and CWODs. The mothers engaged in play with their children more than the fathers, which parallels their respective levels of involvement in the other activities we investigated. Physical play was the type engaged most often by the mothers and fathers of CWIDs and by the fathers of CWODs. Furthermore, fewer than 10% of the mothers and fewer than 3% of the fathers of CWIDs and CWODs played symbolic games with their children. Several studies have reported differences between the types of play engaged in by mothers and fathers: overall, mothers prefer sedentary and didactic games, while fathers prefer active games, such as rough-and-tumble play (Haight et al., 1997; Lin et al., 2019; McBride & Mills, 1993). A study in Türkiye reported that fathers frequently participated in their children's play and held positive views about playing with them (Ivrendi & Işıkoğlu, 2010), although we found that only a few fathers in the two groups of children were reported to involve themselves in their children's play. Given that physical

play is linked to motor and cognitive development in children (Pellegrini & Smith, 1998), as well as social competencies (Brussoni et al., 2015), PI in physical games may be considered important for all children. Concerning the role of symbolic play in the development of cognitive, language, literacy, and math skills in children (Whitebread et al., 2017), we speculate that: (a) parents of CWIDs and CWODs may not be aware of the importance of symbolic play for the development of their children; (b) they might not know how to effectively engage in symbolic play; and (c) parents of CWIDs may believe that their children are unable to engage in pretend play due to cognitive or language challenges and their difficulties in establishing interactions with others. It should be underlined that parent–child play and the types of activities in which parents get involved may be affected by the physical, social, and even cultural context in which the family resides (Göncü et al., 2000; Lin et al., 2019), preventing the generalization of this finding to other parent groups.

Other studies have shown that demographic characteristics of parents (e.g., gender, education, income, employment status, and the number of children in the home) and children (e.g., special needs, gender, and temperament) are associated significantly with HBPI (Epley, 2013; Fantuzzo et al., 2000; Han et al., 2017; Rispoli et al., 2018; Sucuoğlu et al., 2020). In our study, the mother's share of PI could not be directly compared with that of the father in the same family; however, involvement behaviours seem to show that the gender of parents made some difference in the level of HBPI, not only for CWIDs but also CWODs, with mothers tending to be more involved in their children's activities and play. Previous studies have reported that the gender of parents contributes to their levels of HBPI and school-based involvement (Feuerstein, 2000; Jafarov, 2015), although there are some conflicting findings regarding the level of involvement of mothers versus fathers. For example, although fathers engage in some of the activities of their children and contribute to their development (Saracho, 2007), mothers generally show significantly higher levels of PI than fathers in many cultures (Crnic et al., 2009; Fleischmann & de Haas, 2016). Familial, personal, structural, and cultural characteristics of the family may prevent fathers from becoming more involved with their children (Hofferth, 2003). According to Kağıtçıbaşı (1996), the father in Turkish families is generally perceived as the head of the extended family, the decision-maker, and the breadwinner; approximately 60% of fathers do not involve themselves with their children in activities like reading books and playing games (Mother–Child Education Foundation, 2017). In Türkiye, descriptive studies (Pekel Uludağlı, 2017; Yoleri, 2022) and research (Mother–Child Education Foundation, 2017) have explained the importance of fathers' involvement in the development of children; however, no information is available in the literature regarding how paternal involvement influences the development of children with disabilities.

Family income and the education levels of parents both have a significant effect on the involvement of parents (Arnold et al., 2008; Hayes et al., 2018; Ho, 1995; Mother–Child Education Foundation, 2017; Yotyodying & Wild, 2014; Waanders et al., 2007), with parents having higher incomes and higher levels of education being more likely to be involved in both school and home activities. Our findings concur partly with these studies, revealing links between family income

and mother involvement with CWODs, and significant relationships between maternal education and the involvement of fathers and mothers of CWIDs. Our finding of the significant relationships between the number of children and HBPI with CWIDs supports Sucuoğlu et al.'s (2020) study, which showed that the quality of the home environment and the level of parent engagement in the activities of children decrease when the number of people per room is higher. Overall, our findings suggest that a fuller understanding of the variables affecting HBPI will require further studies, and more detailed information on parents of CWIDs and CWODs is needed to identify the effective variables affecting HBPI.

Limitations and Future Studies

Four limitations should be considered when interpreting the results of this study. First, the findings are all based on data collected from the mothers only. Fathers of the children involved in the study offered various reasons for not participating in interviews, such as time constraints, working during the day, and their roles in the family. Mikelson (2008) suggested that mothers may underestimate the role of the father: when both mothers and fathers were asked how many times a week the father engaged in their children's activities, respondent mothers stated involvement at levels lower than claimed by respondent fathers. To obtain more accurate information regarding father involvement, future studies should collect data directly from fathers as well as mothers. Second, the present study examined HBPI by analyzing parent behaviour only, without delving into the potential impact that raising a child with a disability could have on PI, the challenges parents may encounter in attempting to participate in their children's activities and play, or their perspectives on these matters. Examining the quality of HBPI for all children could provide a more nuanced understanding of the needs of parents; it might also yield important information for the development of parent training programs. Moreover, future studies could explore HBPI based on the child's age and gender. Third, the Parent Interview Form was a brief scale that was designed to be easily understood. However, previous studies have highlighted the potential psychometric limitations associated with the use of short scales, particularly in terms of reliability and validity (Rammstedt & Beierlein, 2014). (Nevertheless, some studies have demonstrated the practical advantages of short scales over longer ones [Ziegler et al., 2014]; it is therefore recommended that the use of the Parent Interview Form be considered when collecting data from large groups of parents.) Fourth, the present study employed self-reported data from mothers to assess HBPI in their children's activities and play. Self-reports are vulnerable to biases such as social desirability and recall inaccuracy, which may compromise the reliability of the findings (Shrout et al., 2018). A more comprehensive and objective assessment of HBPI could be obtained from future studies that incorporate additional data sources, such as reports from teachers, caregivers, and therapists, as well as direct observation. The use of multiple informants or observational methods has the potential to enhance the validity of the findings and provide more nuanced information on the dynamics of HBPI for CWIDs and CWODs in different contexts.

Conclusion

The results of our study can be considered a valid resource for future studies aimed at understanding not only the level of HBPI but also the quality of the home environment and learning opportunities in the home provided by parents of both groups of children. The findings suggest several practical implications, as well as policy changes that could work toward enhancing HBPI. Fathers should be encouraged to participate more actively in their children's activities and play, as the data indicate that fathers' involvement is considerably lower than that of mothers. In light of the low levels of HBPI in activities such as reading aloud and storytelling, it is imperative to implement educational programs about the profound impact of these activities on children's cognitive and language growth. The mother's educational level emerged as a crucial factor, particularly in interactions with CWIDs, underscoring the importance of providing educational programs and resources tailored to the needs of parents. Moreover, the observed decline in PI with an increasing number of children in the family underscores the necessity for the development of supportive policies for larger families. In this context, the implementation of flexible working hours, family-friendly workplace policies, and social support mechanisms could assist parents in allocating more quality time to their children.

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