PSIKOLOGIKA Volume 30 Nomor 2, Juli 2025: 175-194
DOI:10.20885/psikologika.vol30.iss2.art1
E-ISSN: 2579-6518
P-ISSN: 1410-1289

# Mother-Child Interaction on Independence of Children with Intellectual Disabilities

**Fitra Nanda Kurnia, Yulina Eva Riany, Herien Puspitawati, Tin Herawati**
Family Science and Child Development Study Program, Faculty of Human Ecology, Bogor Agricultural University, Bogor, Indonesia

**Abstract.** To effectively support the independence of children with intellectual disabilities, the role of the family in protecting respective rights has been identified to be an important aspect. Therefore, this study aims to analyze the correlation and effect of mother-child interaction (MCI) on independence of children (IC) with intellectual disabilities in Bogor City. The respondents consisted of 155 mothers who had children with intellectual disabilities aged 2-18 years. Data were collected using a non-probability sampling method with a purposive sampling method. The instruments used include the Parent-Child Relationship Schema Scale (PCRSS) developed by Dixson et al. (2014) and Children Helping Out: Responsibilities, Expectations, and Support (CHORES) model introduced by Dunn (2004). The results showed the presence of a positive correlation between MCI and IC (path coefficient (β) = .362, $p$ = .000). Furthermore, several dimensions of MCI, such as attention, mutual assistance, and affection, were significantly related to the independence of the observed demographic. Based on these results, it was inferred that a healthy MCI led to the instillation of a higher level of independence in children with intellectual disabilities. The effect test results showed a significant positive effect between MCI and IC, with a path coefficient of .371, a t-value of 4.016, and a very low p-value ($p$ < .000). This reflected that MCI had a significant impact on IC level.

**Keywords:** children with intellectual disabilities, independence of children with intellectual disabilities, mother

## Interaksi Ibu-Anak pada Kemandirian Anak dengan Disabilitas Intelektual

**Abstrak.** Salah satu faktor penting dalam mendukung kemandirian anak disabilitas intelektual adalah adanya peran keluarga dalam melindungi hak-hak anak disabilitas intelektual. Penelitian ini bertujuan untuk menganalisis hubungan dan pengaruh interaksi ibu anak terhadap kemandirian anak disabilitas intelektual di Kota Bogor. Kriteria subjek penelitian yaitu ibu yang memiliki anak disabilitas intelektual usia 2-18 tahun. Jumlah subjek penelitian ini 155 responden ibu. Data dikumpulkan melalui *non-probability sampling* dengan teknik *purposive sampling*. Instrumen yang digunakan yaitu *Parent-Child Relationship Schema Scale* (PCRSS) yang dikembangkan oleh Dixson et al. (2014) dan *Children Helping Out: Responsibilities, Expectations, and Support* (CHORES) yang dikembangkan oleh Dunn (2004). Hasil penelitian menunjukkan bahwa terdapat hubungan positif antara interaksi ibu anak dan kemandirian anak disabilitas intelektual (koefisien jalur (β) = .362 dan p value = .000). Beberapa dimensi interaksi ibu anak memiliki hubungan signifikan dengan kemandirian anak disabilitas intelektual, yaitu dimensi perhatian, tolong menolong dan kasih sayang. Berdasarkan hasil tersebut dapat disimpulkan bahwa semakin baik interaksi ibu-anak maka semakin tinggi tingkat kemandirian anak disabilitas intelektual. Hasil uji pengaruh menunjukkan adanya pengaruh positif yang signifikan antara dimensi Interaksi Ibu-Anak (IIA) dan Kemandirian Anak (KA), dengan koefisien jalur sebesar .371 dan t-value 4.016, serta p-value yang sangat rendah (.000). Hal ini menunjukkan bahwa interaksi antara ibu dan anak memiliki dampak yang signifikan terhadap tingkat kemandirian anak.

**Kata Kunci:** anak disabilitas intelektual, ibu, kemandirian anak disabilitas intelektual

**Correspondence:** Fitra Nanda Kurnia. Email: fitranandakurnia@apps.ipb.ac.id

Developmental tasks are a series of responsibilities that arise at each stage of life, with specific tasks considered essential and mandatory. For instance, independence is an important developmental task that should be achieved, as this achievement will make it easier for an individual to face subsequent tasks. Children's independence refers to the ability of minors to regulate and control inherent feelings, thoughts, and actions, comprising a sense of responsibility, self-confidence, and discipline (Sunarty, 2016). According to another study, independence of children (IC) refers to the ability of the demographic to carry out various developmental tasks and make decisions without excessive dependence on parents (Hidayanti et al., 2023). Erikson's psychosocial theory provides a foundation for the development of children's independence and autonomy. This theory is regarded as a foundational concept that expands on previous psychological theories by emphasizing the ongoing effect of social relationships, culture, life experiences, and biological factors on human development across the lifespan, thereby influencing achievement at each stage (Syed & McLean, 2017). Autonomy is a crucial element in human development, comprising the ability to act and behave independently (Wijaya, 2022). As stated in a previous exploration, optimal independence shows that children are able to care for themselves, manage time, as well as interact socially and effectively (Sa'diyah, 2017).

Autism and intellectual disabilities have been observed to be generally associated with problematic behavior, impaired social maturity (Ganaie et al., 2015), and cognitive delays, also referred to as Down syndrome (Howell et al., 2021). As recorded in previous studies, Down syndrome is a condition in children with intellectual disabilities characterized by unique developmental (Cristian et al., 2023) and cognitive delays (Ghaffar et al., 2019). Mentally retarded individuals are those who have below-average intelligence, resulting in an inability to adapt to certain behaviors during development (Siahaan et al., 2023). Based on the explanation provided, the term "children with intellectual disabilities" in this current study refers to minors with cognitive developmental and adaptive social behavior disorders, including autism, Down syndrome, and intellectual disability. These three conditions have diverse characteristics but share similarities, namely limitations in intellectual and adaptive behavior, which affect the ability of children to live independently. Intellectual disability is characterized by limitations in intellectual functioning and adaptive behavior that affect the skills required for daily living (Anidi & Anlianna, 2022). According to American Association on Intellectual and Developmental Disabilities (AAIDD), intellectual disability is defined as a condition characterized by significant limitations in intellectual functioning and adaptive behavior, including

social, practical, and motor skills, that appear before the age of 18 (Ungurean, 2021).

Independence in children with intellectual disabilities includes the ability to perform basic life skills such as maintaining personal hygiene and carrying out household tasks independently (Astriani & Mufidah, 2022). Based on previous observations, optimal independence in children with intellectual disabilities can be achieved by developing skills in areas such as self-management, implementing democratic management, and varying intervention approaches (Adamczyk et al., 2023). Furthermore, comprehensive support is necessary to foster the development of this demographic, particularly in aspects such as autonomy, decision-making, self-observation, and clear goal setting (Vasilakopoulou, 2022). All of these factors play a very important role in supporting the developmental transition of children with intellectual disabilities from childhood to adulthood.

The situation of disability in Indonesia is a highly complex and diverse phenomenon, particularly considering its large population, which significantly impacts various aspects of life. The topic of disability is also an indicator in achieving Target 10.2.1 of Sustainable Development Goals (SDGs). Currently, issues related to disability have become a problem that requires special attention in the social sector (Irwanto et al., 2010). This is evidenced by the fact that World Health Organization (WHO) has emphasized the importance of fulfilling the right to health and human rights with the principle of "No One Left Behind" (Samman et al., 2021). In this context, the Indonesian government has shown a greater commitment to individuals with disabilities by ratifying Law No. 8 of 2016 concerning Persons with Disabilities (Mandini, 2020). Despite progress in increasing awareness and accessibility, the challenges faced by individuals with disabilities in Indonesia are still very complex and often overlooked. Many individuals with disabilities, alongside associated families, have been found to face difficulties in fulfilling respective rights due to the discrimination and stigma that categorize people with disabilities as those who are unable to live independently. Based on data from the 2020 Long Form Population Census, which recorded a disability prevalence of 1.43%, collaborative efforts are needed between the government, educational institutions, and the community to strengthen regulations, develop inclusive education programs, and eliminate social stigma. All these should be carried out in order to support the independence level of individuals with disabilities (Badan Pusat Statistik, 2024).

The development of independence in children with intellectual disabilities has been reported to face more complex challenges due to limitations in cognitive and social aspects. This demographic often experiences cognitive impairments, learning difficulties, and problems with self-care (Lubis et al., 2023). Other difficulties, such as memory and social

adjustment, also pose challenges for these children (Anidi & Anlianna, 2022). However, the demographic has the potential to become independent if given the right care and support. As a previous study has shown, caring for children with intellectual disabilities can be significantly challenging, specifically for single mothers. When appropriate adjustments and support are in place, these mothers would be able to fulfill respective parenting roles effectively, thereby increasing the hope that children with intellectual disabilities will be able to live independently and lead normal lives in the future (Ramadhani & Rahmandani, 2019). Family and school support also play a very important role in addressing the challenges faced by children with intellectual disabilities (Anidi & Anlianna, 2022). Therefore, one important factor in supporting IC is family, specifically parents, who have the sole responsibility of protecting the rights of children. Previous studies have shown that parental care plays a significant role, but this role is often hampered by difficulties in understanding children's rights and poor communication (Janah et al., 2023). This limitation can be addressed by instilling into parents the need for providing affection, attention, a sense of security, as well as training and education for the demographic (Gea et al., 2023). Other studies have also shown that responsive and loving parental inclusiveness with intellectually disabled children helped develop independence skills such as self-care and social skills (Mumpuniarti et al., 2021).

Various mistakes have been observed to be made by parents in a bid to help children with intellectual disabilities achieve independence. For instance, a previous study showed a lack of parental inclusiveness in the decision-making process of the demographic (Rasid et al., 2024). Other studies found that maintaining routines at home was a challenge for parents aiming to foster the development of independence in children under observation (Musdalifah, 2022). Furthermore, a study showed that the demographic group had limited opportunities for self-care skills (Sunan et al., 2023). These results suggested that IC needs to be cultivated in the family environment, thereby admonishing parents to play a very essential role as a support system for respective children.

Previous studies have primarily emphasized the importance of verbal communication between mothers and children. However, further investigation is needed to explore other dimensions, such as responsiveness, emotional attention, and the manner in which mothers respond to the needs of children. Based on observation, a mother's responsive and affectionate communication style can positively impact the development level of independence in children, which includes children's ability to engage in daily activities independently and develop the social skills necessary for interacting with others (Vilaseca et al., 2023). Previous explorations have also stated that parents are limited in developing life skills for children with intellectual disabilities

and tend to rely on a single method (Adamczyk et al., 2023). Limitations in understanding social norms and verbal communication have been found to often hinder the ability of children with intellectual disabilities to act independently in social situations or provide self-care. Therefore, it is important for parents, specifically mothers, to develop effective communication skills and be responsive to the emotional needs of children. Based on observations, the predominant focus of previously conducted explorations is on how mother-child interaction (MCI) can support IC in terms of self-care, self-control, and broader social skills (Astriani & Mufidah, 2022; Mumpuniarti et al., 2021). This present study aims to examine MCI correlation through various dimensions of interaction and its effect on the level of independence possessed by children with intellectual disabilities.

## Method

### Research design

This present study was carried out using a quantitative method with a cross-sectional study design. A cross-sectional study refers to an exploration conducted over a single period (Mohajan, 2020). This study design was selected primarily because it allows for simultaneous data collection to obtain an overview of the correlation between MCI and IC. Furthermore, cross-sectional studies have been reported to offer the advantages of cost-effectiveness, ease of implementation, and provide a comprehensive view of the correlations between different variables (Grujièiæ & Nikoliæ, 2021).

### Respondents

The population of this study consists of families with intellectually disabled children aged 2-18 years. The criteria for subject selection include mothers with children having intellectual disabilities aged 2-18 years. The determination of children's age was in accordance with the Regulation of the Minister of Women's Empowerment and Child Protection No. 4 of 2024, which states that a child is an individual who has not reached the age of 18 years (Kementerian PPPA, 2024). The respondents were taken from several Special Needs Schools (SLB), Inclusive Schools, and disability foundations in Bogor City.

### Data collection

The respondents were selected using a non-probability sampling method with a purposive sampling technique, which led to the attainment of a sample size of 155 respondents. The number of respondents was determined based on the recommended sample size for Smart Partial Least Squares (PLS) analysis, which is at least 100-200 respondents (Tenenhaus, 2008). Furthermore, the data collection phase was conducted from October 2024 to December 2024.

Parent-Child Relationship Schema Scale (PCRSS) is an instrument that is conventionally used to evaluate the interaction between mothers and children. This instrument consists

of 33 items and covers five dimensions, namely shared activities, communication, mutual assistance, affection, and conflict (Dixson et al., 2014). Each item is rated on a 4 Likert scale denoting 1 (never), 2 (rarely), 3 (often), and 4 (always). The Cronbach's alpha reliability value obtained for this instrument is .87.

Children Helping Out: Responsibilities, Expectations, and Support (CHORES) is an instrument used to assess the extent to which children with intellectual disabilities can independently perform tasks related to self-care and family care. This instrument comprises 33 items, which are divided into two main dimensions, namely self-care and family care (Dunn, 2004). Each dimension is measured using a series of questions related to actions or habits that show the level of independence possessed by children under investigation in carrying out daily responsibilities. Items are rated using a Likert scale ranging from 1 (not expected to perform the task), 2 (unable to perform the task), 3 (needs much help), 4 (needs some help), 5 (needs to imitate), 6 (needs verbal commands), and 7 (takes own initiative). The obtained Cronbach's alpha reliability value of this instrument is .93.

### Data analysis

Two approaches were adopted in this study for data analysis. The first is descriptive analysis, which was carried out to examine the characteristics of the respondents, variable categorization, and descriptive correlation tests using Pearson's model for MCI and children's independence. This analysis was conducted using Statistical Package for Social Science (SPSS) 25.0 software. The second approach includes an analysis of the validity, reliability, hypothesis, and the effect of MCI on children's independence. This analysis was carried out using Smart PLS software.

## Results

The purpose of this study was to analyze the correlation and effect of MCI on IC. Table 1 presents the characteristics of the study respondents. Based on the data analysis results, it was found that the age distribution of children with intellectual disabilities was relatively balanced. Middle-aged children (6-11 years) comprised 51.6% of children's population, while late-aged children (12-18 years) comprised 48.4%.

**Table 1**

Characteristics of Research Respondents

| Respondent Characteristics | *n* | % |
|---|---|---|
| Child Age | | |
| Middle Childhood (6-11 years) | 80 | 51.6 |
| Late Childhood (12-18 years) | 75 | 48.4 |
| Mother's Age | | |
| Early Adulthood (18-40 years) | 63 | 40.6 |
| Middle Adulthood (41-60 years) | 92 | 59.4 |
| Marital status | | |
| Married | 142 | 91.6 |
| Widowed | 5 | 3.2 |
| Divorced | 8 | 3.2 |
| Mother's Education | | |
| Did not finish Elementary School | 2 | 1.3 |
| Graduated from Elementary School | 16 | 10.3 |
| Junior High School | 25 | 16.1 |
| Senior High School | 66 | 42.6 |
| Academy/Associate/Bachelor's/Master's/Doctoral Degree | 46 | 29.7 |

*Note*. *N* = 310.

The majority of respondents were mothers of middle-aged adults (41-60 years), accounting for 59.4% of the total number of women in the study population. Meanwhile, mothers in the early adulthood group (aged 18-40 years) accounted for 40.6%. This shows that most mothers in the study were in a more mature age range. This may affect the level at which the demographic can effectively care for children with intellectual disabilities. This ineffectiveness was attributed to the lack of experience in this regard. In terms of marital status, the majority of mothers in the study sample were still married (91.6%), with only a small proportion being divorced (5.2%) and widowed (3.2%). These stats shows that most respondent families tended to be in stable marital bonds, while only a small number experienced separation or the loss of a spouse. Based on mother's education level, most mothers had a high school education (42.6%), 29.7% had an academy/diploma/bachelor's/master's/doctoral degree, 16.1% had a junior high school education, 10.3% had completed elementary school, and 1.3% had not completed elementary school. This signifies that the majority of mothers in the sample have a high level of education, which has the potential to affect the way mothers educate and care for children with intellectual disabilities.

Based on the categorization in Table 2, MCI variable for the majority of respondents (56.1%) had a moderate category level with a value range between 60.01 to 79.99. The average MCI in this group was 72.0 with a standard deviation of 11.7, reflecting moderate variation in the level of interaction between mothers and children. Meanwhile, for IC

variable, the majority of children (61.3%) were in the low category (value ≤ 60.00), with an average value of 54.0 and a standard deviation of 18.8, signifying significant variation in the level of IC in this category. A total of 31.6% of children were in the moderate category (values between 60.01 to 79.99), and only 7.1% were classified in the high category (values ≥ 80.00). This shows that most respondents possessed low to moderate levels of independence, while only a few reflected high levels of independence.

**Table 2**

*Variable Categorization*

| Variable | Categorization | | | | | | *M* | *SD* | *Min* | *Max* |
|---|---|---|---|---|---|---|---|---|---|---|
| | Low | | Moderate | | High | | | | | |
| | *n* | % | *n* | % | *n* | % | | | | |
| Mother-Child Interaction | 26 | 16.8 | 87 | 56.1 | 42 | 27.1 | 72 | 11.7 | 27.1 | 93.8 |
| Independence of Children | 95 | 61.3 | 49 | 31.6 | 11 | 7.1 | 54 | 18.8 | 10.1 | 93.9 |

*Note*. Range of Values: Low = ≤ 60.00; Moderate = 60.01-79.99; High = ≥ 80.00

**Validity and reliability test**

Based on the information presented in Table 3, MCI and IC were analyzed using several indicators, including loading values, Cronbach's alpha, composite reliability (CR), and Average Variance Extracted (AVE). The incorporation of all these indicators in the analysis is often referred to as convergent validity. Convergent validity is typically carried out with the aim of assessing the extent to which indicators of a variable accurately measure the variable. In MCI, the indicators used include IAA_01, IAA_02, IAA_03, IAA_04, and IAA_05. However, IAA_05 indicator showed a negative loading value (-.324), which was attributed to the fact that IAA_05 is a negative statement. Other indicators showed quite high loading values, such as IAA (.604), IAA_02 (.847), IAA_03 (.855), and IAA_04 (.834), indicating a strong positive correlation between these indicators and MCI variable. The Cronbach's alpha for MCI was .662, signifying moderate internal reliability, while CR was .769, greater than the ideal standard of .70, showing a reliable variable. AVE value for MCI was .523, slightly higher than the minimum threshold of .50, meaning that it was able to explain most of the variability in the associated indicators.

**Table 3**

*Validity and Reliability Categorization*

| Variable | Indicator | Loadings | Cronbach's α | CR | AVE |
|---|---|---|---|---|---|
| Mother-Child Interaction (MCI) | IAA_01 | .604 | .662 | .769 | .523 |
| | IAA_02 | .847 | | | |
| | IAA_03 | .855 | | | |
| | IAA_04 | .834 | | | |
| | IAA_05 | -.324 | | | |
| Independence of Children (IC) | KA_01 | .942 | .885 | .945 | .897 |
| | KA_02 | .951 | | | |

In terms of IC, the two indicators used, KA_01 and KA_02, had very high loading values of .942 and .951, respectively. This showed the presence of a strong correlation between the indicators and IC. Furthermore, the obtained Cronbach's alpha value was .885, signifying excellent internal reliability. The CR value was .945, reflecting excellent reliability, and AVE value was .897, significantly exceeding the minimum requirement (.50), thereby effectively explaining the variability of the indicators.

Fornell-Lacker Criterion analysis was carried out with the aim of evaluating the extent to which the variables measured in a measurement model have good discriminant validity. Discriminant validity typically measures the extent to which different variables in the model are truly distinct from each other. The results in Table 4 show the correlations between the variables analyzed in this study. In Fornell-Larcker Criterion, discriminant validity between variables is typically assessed by comparing the square root of AVE of each variable with the correlation between variables. Based on the obtained results, AVE value for MCI was .723, while that of IC was .947. These values implied that both variables had good convergent validity, as AVE value for each variable is greater than .50, signifying how both variables could explain most of the variability in the related indicators.

**Table 4**

*Fornell-Larcker Criterion*

| Variable | (1) | (2) |
|---|---|---|
| Mother-Child Interaction (MCI) | .723 | |
| Independence of Children (IC) | .362 | .947 |

A shown in Table 4, the correlation value between MCI and IC is .362, signifying a positive but moderate correlation between the two variables. This correlation value is lower than the square root of AVE for both variables (.723 for MCI and .947 for IC), implying that the variables have adequate discriminant validity. This shows how each variable can be clearly

distinguished from the others in the measurement model.

### Hypothesis testing

Based on the results in Table 5, the positive correlation between MCI and IC is shown by the path coefficient (â) value of .362, signifying a positive correlation between the two variables. In this context, the T-value (t) obtained was 6.516, reflecting a greater value than the threshold of 1.96 and confirming the presence of a highly significant correlation. In addition, the P-value obtained was very small ($p$ = .000), implying a highly significant correlation at the .05 significance level, which means the hypothesis being tested is strongly supported.

**Table 5**

*Hypothesis Testing*

| Hypothesis | β | *t* | *p* | Description |
|---|---|---|---|---|
| Mother-Child interaction → Independence of Children | .362 | 6.516 | .000 | Accepted |

### Correlation test

Based on the results presented in Table 6, several dimensions of MCI had a significant correlation with IC, while others did not. For instance, the joint activity dimension showed a very weak correlation, with IC having a correlation coefficient of .050 and a p-value of .539. This implied that the relationship between mother and child participation in joint activities did not have a significant effect on IC. However, the attention dimension showed a significant positive correlation with IC, as evidenced by the obtained correlation coefficient of .325 and p-value of .000. This implied that the greater the mother's attention to child, the higher the IC level. This shows how mother's attention can be an important factor in increasing IC.

**Table 6**

*Correlation Test between MCI Dimensions and IC*

| Independent Variable | Dependent Variable | *r* | *p* |
|---|---|---|---|
| Mother-Child Interaction (MCI) | | | |
| Shared Activities | | .050 | .539 |
| Attention | Independence of | .325 | .000*** |
| Mutual Assistance | Children (IC) | .303 | .000*** |
| Affection | | .308 | .000*** |
| Conflict | | -.139 | .085 |

*Note.* ***$p$ < .001

The mutual assistance dimension showed a significant positive correlation with IC, where the correlation coefficient obtained was .303 and the p-value was .000. This implied that children who were accustomed to interactions with Mutual Assistance from respective mothers tend to have a higher level of independence. The affection dimension had a significant positive correlation with IC, with a correlation coefficient of .308 and a p-value of .000. These results show how mother's affection plays a very significant role in increasing IC, meaning that children who feel loved tend to have higher self-confidence and independence. However, the conflict dimension showed a negative correlation with IC, as evidenced by a correlation coefficient of -.139 and a p-value of .085. This correlation is not statistically significant, meaning that the frequency of conflict between mothers and children did not have a strong enough impact on IC. Essentially, these results reflect how the dimensions of attention, mutual assistance, and affection in MCI have a significant and positive correlation with IC. The Shared Activities and Conflict dimensions did not signify a significant correlation, implying that the quality of interactions based on emotional and social support from mothers plays an important role in shaping children's independence.

The correlation test in Table 7 shows the correlation between subject characteristics and the variables of MCI and IC. From the information presented, it can be seen that Child age had a very weak correlation with MCI, as evidenced by the obtained correlation coefficient of .032 and p-value of .695. However, child age had a more significant correlation with IC, with a correlation coefficient of .292 and a p-value of .000 (Table 7), signifying how child age is positively related to the level of IC. This implies that the older the child, the greater the IC. Accordingly, mother's age showed a very weak correlation with both MCI ($r$ = .047, $p$ = .564) and IC ($r$ = .022, $p$ = .781) (Table 7), indicating no significant correlation between mother's age and both variables.

**Table 7**

*Correlation Test of Subject Characteristics with Variables*

| Subject Characteristics | Mother-Child Interaction (MCI) | | Independence of Children (IC) | |
|---|---|---|---|---|
| | *r* | *p* | *r* | *p* |
| Child Age | .032 | .695 | .292 | .000 |
| Mother's Age | .047 | .564 | .022 | .781 |
| Marital status | -.180* | .025 | -.120 | .136 |

Marital status had a significant negative correlation with MCI, as evidenced by the obtained correlation coefficient of -.180 and p-value of .025 (Table 7), which signified how married mothers had lower interaction with respective children compared to unmarried mothers. However, marital status and IC did not show a significant correlation, with a correlation coefficient of -.120 and a p-value of .136 (Table 7).

**Testing of effect**

**Table 8**

*Testing the Effect of MCI Dimensions on IC*

| Variable | β | *t* | *p* |
|---|---|---|---|
| Mother-Child interaction → Independence of Children | .371 | 4.016 | .000 |

The Testing of Effect results presented in Table 8 show a significant positive effect between MCI and IC. The path coefficient of .371 shows that improving the quality of MCI contributed to increased IC. The t-value, which is significantly greater than the critical value (generally 1.96 for significance at the .05 level), and the very small p-value (less than .05), confirmed that this correlation was not coincidental and is statistically significant. These results support the hypothesis that positive interactions between mothers and children can increase the level of independence possessed by children with intellectual disabilities, which is an important indicator of children's psychosocial development.

**Discussion**

This present study aims to analyze the correlation between MCI and IC (Table 6) and to investigate the associated effects (Table 8). However, before examining, it is necessary to first verify the assumptions in a hypothesis test. The hypothesis test (Table 5) carried out during the course of the investigation showed a positive correlation between dependent and independent variables (β = .362 and *p* = .000). The results support the hypothesis that MCI had a positive effect on IC, signifying that better MCI was directly proportional to a higher level of independence for children with intellectual disabilities. This is in line with a study that reported how mother's responsiveness has a positive correlation with the development of independence and communication skills in children with intellectual disabilities (Potter et al., 2024).

Based on the correlation test between the dimensions of the dependent (IC) and independent (MCI) variables (Table 6), it was found that MCI in the dimensions of attention, mutual assistance, and affection was significantly related to the level of independence possessed by the observed demographic (Table 6). Accordingly, the correlation test of MCI with the dimensions of mother's attention (Table 6) on IC children showed a very strong effect on

the development of independence (β = .325 and *p* = .000). This is in line with a previous exploration (Feniger-Schaal & Joels, 2018), which reported how mother's sensitivity and ability to interact with intellectually disabled children had a positive correlation with the quality of child attachment. According to the study, quality attachment plays an important role in the emotional and social development of the demographic. This elucidation is in accordance with the theory that emotional attention given by mothers can increase the self-confidence of children with intellectual disabilities and strengthen the demographic's ability to handle daily tasks independently (Dixson et al., 2014).

The correlation test of MCI with the mutual assistance dimension (Table 6) showed a positive correlation with IC, signifying that children who were invited to participate in cooperation-based tasks with respective mothers tend to develop better independence skills (β = .303 and *p* = .000). This supports the result that interactions incorporating collaboration in daily tasks can improve the ability of children with intellectual disabilities to manage responsibilities both in self-care and other tasks (Dunn, 2004; Mohajan, 2020).

The correlation test of MCI and the Affection dimension (Table 6) showed a significant positive correlation with IC, both with a path coefficient (â) of .308 and a p-value of .000. This was evidenced by the observation that children who felt loved by respective mothers showed higher self-confidence and the ability to face challenges. Accordingly, these results are consistent with a study that reported a positive correlation between aspects of affection and empathy in the interactions of mothers and children with special needs (Shahrooz et al., 2022). The observation is also in line with the theory that a loving and empathetic relationship between parents can increase IC, specifically in the context of children with special needs such as intellectual disabilities (Samitasiri, 2016).

Based on the obtained results (Table 6), several dimensions of MCI showed insignificant correlations. For instance, the Shared Activities dimension between mother and child did not show a significant correlation with the level of independence possessed by the observed demographic. This result may be due to the fact that children with intellectual disabilities require a more structured approach or more assistance in carrying out shared activities, which does not directly affect the increased independence of the demographic. In this case, the quality of interaction is more important than the quantity of time spent together (Dixson et al., 2014). Accordingly, the Quarrel dimension (Table 6) did not show a significant correlation with IC. This showed that although quarrels in the family could affect MCI, the impact on IC was not significant enough to have a direct impact. It also emphasized the importance of the emotional quality of MCI compared to the intensity or frequency of conflict in the family (Mohajan, 2020).

Considering the characteristics of the study respondents, child age was positively correlated with IC ($r$ = .292, $p$ = .000) (Table 7). As children with special needs, their independence increases. This is in line with previous results that children with intellectual disabilities can develop independence in performing daily tasks with increasing age. It is important to add that this phenomenon is dependent on the severity of the disability, the environment, and the availability of appropriate independent skills training (Hwang et al., 2015). On the flip side, mother's age did not significantly affect MCI ($r$ = .047, $p$ = .564) or IC ($r$ = .022, $p$ = .781) (Table 7). This is in line with the results of other studies, which recorded how no significant association existed between mother's perceptions and mother-child connectedness ($p$ = .086). The result implied that mother's age was not a significant factor in the observed interaction (Moolayil, 2021). This suggests that other factors, such as parenting experience and social support received by mother, played a more significant role than mother's age.

Mother's marital status showed a significant negative correlation with MCI, evidenced by the correlation coefficient of -.180 and a p-value of .025 (Table 7), implying that married mothers tended to have lower interactions with their children compared to unmarried mothers. Although it did not show a significant relationship with IC (correlation coefficient of -.120, p-value .136) (Table 7), this result suggests that mother's marital status may influence the quality of interactions with intellectually disabled children. The observation is related to a previous study, which showed how married mothers often faced dual roles, namely as caregivers and partners in the household, which can reduce the quality of attention and interactions with children having intellectual disabilities (Raharja et al., 2020). Other explorations have shown that family structure and marital status influenced parenting patterns and parental inclusiveness, contributing to limited time allocation between different family tasks and affecting MCI (Pavon et al., 2023). The study also emphasized the importance of caring for children with intellectual disabilities, particularly in cases where married mothers may be more preoccupied with social and economic responsibilities, which impacts the inclusiveness in caring for children. In accordance with this, the structural-functional theory proposed by Talcott Parsons (Langley et al., 2021) explains that stable family structure and function significantly influence the quality of relationships between family members, including interactions between mothers and children with intellectual disabilities.

The results of the effect test showed a significant positive effect between the dimensions of MCI and IC with a path coefficient of .371, a t-value of 4.016, and a very low p-value (.000) (Table 8). This reflects how MCI has a significant impact on the level of IC. The path coefficient of the effect test signified

that the quality of MCI determines the level of independence achievable by children with intellectual disabilities. This result is in line with a previous study, which reported how emotional support, instrumental support, appreciation, and parental inclusiveness, specifically mothers in child's life, contribute to the development of independence (Asral & Wijayanti, 2024). Furthermore, the t-value, which far exceeds the significance limit (1.96), and the p-value, which is less than .05, signify strong validity. These results provide empirical evidence supporting the theory that positive interaction between mothers and children played a very important role in developing IC (Musyaropah et al., 2023) and adolescents with intellectual disabilities (Gavron et al., 2022). The findings confirm the importance of the roles played by mothers in shaping the character and independence level of children. Despite the associated importance, this study has a limitation, including the fact that it was confined to the family context. In order to address this limitation, future explorations are expected to incorporate broader environmental factors, including educators, therapists, and child development psychologists, to address the issues more comprehensively.

Based on the discussion, the results obtained answer the study objectives. A positive correlation was found between MCI and IC. Several dimensions of MCI showed significant correlation with IC, including attention, mutual assistance, and affection.

## Conclusions

This study aims to examine MCI correlation through various dimensions of interaction and its effect on the level of independence possessed by children with intellectual disabilities. In conclusion, this study analyzed the correlation and effect of MCI on IC. Based on the obtained results, an inference was made that a positive correlation existed between the dependent and independent variables. This was evidenced by the fact that several dimensions of MCI, namely attention, mutual assistance, and affection, reflected significant correlation to the independence of the observed demographic. Meanwhile, the dimension of shared activities showed a very weak impact, as evidenced by its negative correlation with IC. The effect test analysis reflected a significant positive correlation between the dependent and independent variables. This suggests that interaction between mothers and children has a significant impact on the independence levels of children, including those with intellectual disability.

### Suggestion

This study provides a more specific understanding of MCI in promoting IC. The observations made during the course of the exploration suggest that enhancing the quality of family interaction is essential for promoting the development of independence in children with intellectual disabilities. Furthermore, the results showed how the quality of MCI, particularly in terms of emotional attention, affection, and

cooperation during daily tasks, is important for supporting IC. Future studies are expected to design more specific interventions to increase the independence level of the demographic by focusing on the quality of MCI based on emotional and social support, as well as paying special attention to the aspects of attention and affection in rendering care to the group.

Suggestions for mothers of children with intellectual disabilities include improving the quality of daily interaction, emotional inclusiveness, and affection, as well as developing consistent routines in independent activities for respective children. Accordingly, the government is suggested to improve parenting programs and activities, as well as social support for mothers, focusing on enhancing positive interaction between mothers and children to support the development of independence. A limitation of this study includes the fact that it focused solely on the role of the family microsystem. Future studies should include other microsystems, such as therapists and the school environment, including Special Needs Schools (SLB), Inclusive Schools, and disability foundations.

## References

Adamczyk, M., Majewicz, P., & Wolny, J. (2023). Supporting the development of competences necessary for the independent living of people with profound disorders of intellectual development: an empirical study. *Multidisciplinary Journal of School Education Communication and Social Change*, *12*(2(24)), 357–375. https://doi.org/10.35765/mjse.2023.1224.17

Anidi, & Anlianna. (2022). Permasalahan anak disabilitas intelektual dan disabilitas mental di sekolah. *Arus Jurnal Pendidikan*, *2*(3), 4–10. https://doi.org/10.57250/ajup.v2i3.134

Asral, M. F., & Wijayanti, F. (2024). Dukungan orang tua dengan interaksi sosial pada anak retardasi mental. *Journal of Holistics and Health Sciences*, *6*(1), 103–111. https://doi.org/10.35473/jhhs.v6i1.400

Astriani, D., & Mufidah, A. C. (2022). Modeling to increase self-care independence of children with intellectual disability. *Proceedings of the 1st International Seminar on Business, Education and Science*, 60–65. https://doi.org/10.29407/int.v1i1.2509

Badan Pusat Statistik. (2024). *Potret penyandang disabilitas di Indonesia: Hasil long form SP2020.* https://www.bps.go.id/id/publication/2024/12/20/43880dc0f8be5ab92199f8b9/potret-penyandang-disabilitas-di-indonesia-hasil-long-form-sp2020.html

Cristian, A., Agheana, V., & Elena, A. E. (2023). Assessment of phonological skills in the context of intellectual disabilities: Comparative study between children with Down syndrome and children with intellectual disabilities. *Review of Psychopedagogy*, *12*(1), 14–26. https://doi.org/https://doi.org/10.56663/rop.v12i1.55 ISSN

Dixson, M., Bermes, E., & Fair, S. (2014). An instrument to investigate expectations about and experiences of the parent-child relationship: The parent-child relationship schema scale. *Social Sciences*, *3*(1), 84–114. https://doi.org/10.3390/socsci3010084

Dunn, L. (2004). Validation of the CHORES: A measure of school-aged children's participation in household tasks. *Scandinavian Journal of Occupational Therapy*, *11*(4), 179–190. https://doi.org/10.1080/11038120410003673

Feniger-Schaal, R., & Joels, T. (2018). Attachment quality of children with ID and its link to

maternal sensitivity and structuring. *Research in Developmental Disabilities*, *76,* 56–64. https://doi.org/10.1016/j.ridd.2018.03.004

Ganaie, S. A., Beigh, A. M., Mir, S. M., Shah, S. A., Hussain, A., Dar, A. H., Qadrit, S., & Qurashi, K. K. (2015). Social maturity and problem behaviour in children with autism spectrum disorders and intellectual disabilities. *The Journal of Neuropsychiatry and Clinical Neurosciences*, *5*(1), 16–24. https://www.researchgate.net/publication/284550458

Gavron, T., Feniger-Schaal, R., & Peretz, A. (2022). Relationship aspects of mothers and their adolescents with intellectual disability as expressed through the joint painting procedure. *Children*, *9*(6), 922. https://doi.org/10.3390/children9060922

Gea, Y. K., Taftazani, B. M., & Raharjo, S. T. (2023). Pengasuhan positif orangtua dalam melindungi hak anak dengan disabilitas. *Share: Social Work Journal*, *13*(1), 60-73. https://doi.org/10.24198/share.v13i1.46432

Ghaffar, H. A., El-Awady, H. A., & Beshay, M. A. F. (2019). Neurodevelopmental outcome in children with down syndrome. *Fayoum University Medical Journal*, *2*(1), 79–88. https://doi.org/10.21608/fumj.2019.60244

Grujièiæ, S., & Nikoliæ, A. (2021). Cross-section studies: Advantages and disadvantages. *Health Care*, *50*(4), 43-54. https://doi.org/10.5937/zdravzast50-35574

Hidayanti, M., Lita, & Agustin, M. (2023). The role of parents in forming children's independence. *Journal of Education for Sustainable Innovation*, *1*(1), 9–19. https://doi.org/10.56916/jesi.v1i1.478

Howell, M., Bradshaw, J., & Langdon, P. E. (2021). A systematic review of behaviour-related outcome assessments for children on the autism spectrum with intellectual disabilities in education settings. *Journal of Autism and Developmental Disorders*, *8*(1), 67–91. https://doi.org/10.1007/s40489-020-00205-y

Hwang, A. W., Yen, C. F., Liou, T. H., Simeonsson, R. J., Chi, W. C., Lollar, D. J., Liao, H. F., Kang, L. J., Wu, T. F., Teng, S. W., & Chiu, W. T. (2015). Participation of children with disabilities in Taiwan: The gap between independence and frequency. *PLoS ONE*, *10*(5), 1–19. https://doi.org/10.1371/journal.pone.0126693

Irwanto, Kasim, E. R., Fransiska, A., Lusli, M., & Okta, S. (2010). *Analisis situasi penyandang disabilitas di Indonesia: Sebuah desk review.* Pusat Kajian Disabilitas Fakultas Ilmu-Ilmu Sosial dan Politik Universitas Indonesia, Depok. https://www.researchgate.net/publication/301771571

Janah, H. A. N., Sugeng, B., & Nugraha, B. S. (2023). Pengasuhan orang tua anak penyandang disabilitas intelektual di kelurahan Walitelon Selatan Kabupaten Temanggung. *PEKSOS: Jurnal Ilmiah Pekerjaan Sosial*, *22*(2), 120–136. https://doi.org/10.31595/peksos.v22i2.1036

Langley, E., Totsika, V., Hastings, R. P., & Bailey, T. (2021). Family relationship and their associations with perceptions of family functioning in mothers of children with Intellectual Disability (ID). *American Journal on Intellectual and Developmental Disabilities*, *126*(3), 187–202. https://doi.org/10.1352/1944-7558-126.3.187

Lubis, R., Syafitri, N., Maylinda, R. N., Alyani, N. N., Anda, R., Zulfiyanti, N., & Surbakti, O. Z. (2023). Pendekatan behavioristik untuk anak disabilitas intelektual sedang. *Jurnal Obsesi: Jurnal Pendidikan Anak Usia Dini*, *7*(2), 1626–1638. https://doi.org/10.31004/obsesi.v7i2.4161

Mandini, D. D. S. (2020). Pro dan kontra Undang-Undang Nomor 8 Tahun 2016 tentang Penyandang Disabilitas. *Jurnal Caraka Prabu, 4*(2), 164-174. https://doi.org/10.36859/jcp.v4i2.284

Mohajan, H. (2020). Quantitative research: A successful investigation in natural and social sciences. *Journal of Economic Development, Environment and People*, *9*(4), 52–79. https://doi.org/10.26458/JEDEP.V9I4.679

Moolayil, N. (2021). *Mothers' perceptions of ability in children with intellectual disability and mother-child connectedness* (Dissertations). National Louis University. https://digitalcommons.nl.edu/diss/595

Mumpuniarti, M., Diniarti, G., Prabawati, W., & Suparno, S. (2021). Family nurture in the social skills development of children with intellectual disabilities through daily activities. *Cakrawala Pendidikan*, *40*(3), 628–633. https://doi.org/10.21831/cp.v40i3.43984

Musdalifah (2022). Strategi pengasuh dalam melatih kemandirian penyandang disabilitas intelektual di Yayasan Sayap Ibu Yogyakarta. *Counselle: Journal of Islamic Guidance and Counseling, 2*(2), 136-155. https://doi.org/10.32923/couns.v2i02.2817

Musyaropah, U., Kusuma, N. A., Kurniawati, Putri, A. I., & Haibar, R. A. L. (2023). Parenting styles of mothers in shaping independence of children with special needs. *Journal of Islamic Communication and Counseling*, *2*(1), 1–15. https://doi.org/10.18196/jicc.v2i1.34

Pavon, M. V., Jakab, A. W., & Löw, A. (2023). Exploring relationship satisfaction in mothers of children with disabilities: The predictive role of interparental conflicts and moderating role of dyadic coping. *Frontiers in Psychiatry*, *14,* 1307827. https://doi.org/10.3389/fpsyt.2023.1307827

Kementerian PPPA (Pemberdayaan Perempuan dan Perlindungan Anak). (2024). *Peraturan Menteri No. 4 Tahun 2024 tentang Layanan Pemenuhan Hak Anak*. Biro Hukum dan Humas Kementerian Pemberdayaan Perempuan dan Perlindungan Anak. https://jdih.kemenpppa.go.id/dokumen-hukum/produk-hukum/peraturan-menteri-nomor-4-tahun-2024#

Potter, S. N., Harvey, D., Sterling, A., & Abbeduto, L. (2024). Parental responsivity and child communication during mother–child and father–child interactions in fragile X syndrome. *Journal of Speech, Language, and Hearing Research*, *67*(3), 939–959. https://doi.org/10.1044/2023_JSLHR-23-00517

Raharja, Moch. A. C., Suminarti, S., & Firmanto, A. (2020). Kualitas pernikahan dan stres pengasuhan pada orang tua yang memiliki anak berkebutuhan khusus. *Psikovidya*, *24*(2), 103–112. https://doi.org/10.31849/jppkhlectura.v1i01.14394

Ramadhani, A. F., & Rahmandani, A. (2019). pengalaman pengasuhan *single mother* yang memiliki anak disabilitas intelektual (Studi *interpretative phenomenological analysis*). *Jurnal Empati*, *8*(1), 151–160. https://doi.org/10.14710/empati.2019.23589

Rasid, S. A., Mukhibat, M., & Daryono, R. W. (2024). Evaluation of the independent curriculum in special schools to enhance participation of children with special needs. *Al-Hayat: Journal of Islamic Education (AJIE)*, *8*(2), 826–827. https://alhayat.or.id/index.php/alhayat/article/view/673

Sa'diyah, R. (2017). Pentingnya melatih kemandirian anak. *Kordinat: Jurnal Komunikasi Antar Perguruan Tinggi*, *16*(1), 31–46. https://doi.org/10.15408/kordinat.v16i1.6453

Samitasiri, N. (2016). Developing children with special needs through love, under standing and rationality. *European Journal of Sustainable Development*, *5*(4), 203–208. https://doi.org/10.14207/ejsd.2016.v5n4p203

Samman, E., Roche, J. M., Sarwar, M. B., & Evans, M. (2021). *"Leave no one behind" - Five years into agenda 2030: Guidelines for turning the concept into action*. Overseas Development

Institute. https://cdn.odi.org/media/documents/odi_leave_no_one_behind_-_five_years_into_agenda_2030_newfinal2.pdf

Shahrooz, N., Shojaeian, N., Lynn, R., Hosseinkhanzadeh, A. A., Katurani, A., & Khiabani, I. (2022). The relationship between empathy and altruism in mothers of children with autism spectrum disorder and intellectual and developmental disabilities. *Revista de Discapacidad, Clínica y Neurociencias*, *9*(1), 23-30. https://doi.org/10.14198/dcn.21915

Siahaan, Y. Y., Simangunsong, F., & Turnip, H. (2023). Tantangan dalam mendidik anak penderita tunagrahita. *Pediaqu: Jurnal Pendidikan Sosial dan Humaniora*, *2*(4), 1–7. https://publisherqu.com/index.php/pediaqu/article/view/754

Sunan, M. I. N., Nugroho, A. S., Kadafi, N. A., & Zuhudia, Z. (2023). Peningkatan kemandirian anak penyandang disabilitas dalam mencapai kesejahteraan di unit pelayanan disabilitas Yayasan Sayap Ibu Banten. *Jurnal Hawa: Studi Pengarus Utamaan Gender dan Anak*, *5*(2), 236-243. https://doi.org/10.29300/hawapsga.v5i2.2579

Sunarty, K. (2016). Hubungan pola asuh orangtua dan kemandirian anak. *Journal of Educational Science and Technology*, *2*(3), 152–160. https://doi.org/10.26858/est.v2i3.3214

Syed, M., & McLean, K. C. (2017). *Erikson's theory of psychosocial development*. https://osf.io/pyj86/

Tenenhaus, M. (2008). *Structural equation modelling for small samples*. https://www.researchgate.net/publication/4816335

Ungurean, B. C. (2021). Theoretical aspects of intellectual disability - Definition, classi fication. *Bulletin of the Transilvania University of Braºov Series IX: Sciences of Human Kinetics*, *14*(63) 1, 247–252. https://doi.org/10.31926/butshk.2021.14.63.1.31

Vasilakopoulou, S. (2022). Teaching indepen dent living skills intellectually disabled people. *Conferencii*, *2*(2), 18–26. https://doi.org/10.51586/RAI2022-2-2

Vilaseca, R., Rivero, M., Leiva, D., & Ferrer, F. (2023). Mothers' and fathers' parenting and other family context variables linked to developmental outcomes in young children with intellectual disability: A two wave. *Journal of Developmental and Physical Disabilities*, *35*(3), 387–416. https://doi.org/10.1007/s10882-022-09856-7

Wijaya, S. (2022). The roles of parents teachers association in school-age children's psychosocial development according to Erik Erikson. *Edunesia: Jurnal Ilmiah Pendidikan*, *3*(1), 45–54. https://doi.org/10.51276/edu.v3i1.215

Received 28 March 2025
Revised 7 July 2025
Accepted 9 July 2025