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# Predicting Behavioral Problems in Students with Intellectual Disability Based on Maternal Acceptance and Resilience: The Mediating Role of Aggression

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A B S T R A C T

This study aimed to predict behavioral problems in students with intellectual disabilities based on maternal acceptance and resilience, with the mediating role of aggression. The present study is descriptive in nature and was conducted using a correlational approach based on structural equation modeling. The statistical population consisted of all students with intellectual disabilities enrolled in special education schools under the Exceptional Education Organization in Shiraz during the 2023–2024 academic year. The sampling method was simple random selection, and a total of 127 students were chosen as the final sample. Among the final sample participants, 70.1% were boys, and 29.9% were girls. Data collection instruments included the Conners' Parent Rating Scale—Short Form for behavioral problems, the Connor-Davidson Resilience Scale (2003), the Acceptance and Action Questionnaire developed by Hayes, Baer, Carpenter, Gönül, Zettle, and colleagues (2011), and the Buss and Perry Aggression Questionnaire (1997). Data analysis was performed using SPSS version 16 and SmartPLS software. The study findings indicated a significant negative relationship between maternal acceptance and resilience and behavioral problems in students with intellectual disabilities. Additionally, these two variables significantly and negatively predicted behavioral problems in these students. Based on the findings, it can be inferred that early maternal acceptance and resilience can serve as predictive factors for behavioral problems in students with intellectual disabilities.

***Keywords:*** *Resilience, Acceptance, Behavioral Problems, Intellectual Disability, Aggression*

## 1. Introduction

Today, issues related to children with special needs represent a significant challenge in the fields of psychology and education. These issues have substantial consequences not only for the child and their family but also for society at large. Intellectual disability is a term that refers to a heterogeneous group of neurodevelopmental conditions characterized primarily by significant limitations in cognitive functioning and adaptive behavior (e.g., daily living skills, social participation, communication skills) (Totsika et al., 2022). Children with special needs are categorized into different groups, one of which is intellectual disability. Intellectual disability is a condition defined by below-average intellectual ability (IQ below 70–75) and a lack of necessary skills for daily living. It is characterized by intellectual functioning below the average range, along with deficits in at least two adaptive skill domains, such as communication, self-care, and social skills, and is classified by varying degrees of severity, from mild to profound (Biggs et al., 2024; Reschly et al., 2002).

Children with intellectual disabilities may exhibit a range of behavioral problems, including explosive anger, difficulty in problem-solving, and challenges in associating actions with consequences (Ageranioti Bélanger et al., 2012; Sorter et al., 2022). Behavioral problems, also referred to as disruptive behavior disorders, involve patterns of disruptive behaviors that create difficulties in school, home, and social settings. These disorders are common among both children and adults, and if left untreated, they can negatively impact an individual's ability to maintain employment and relationships (Loy et al., 2017; Nagata et al., 2023).

Behavioral problems in children with special needs have significant consequences not only for the child and their family but also for society (Khasawneh, 2023). These problems are reported at a much higher rate among children with intellectual disabilities compared to typically developing children. The prevalence of behavioral disorders in individuals with intellectual disabilities has been reported to range from 20% to 44%, which is approximately four times higher than in typically developing children. In many cases, children with intellectual disabilities exhibit behavioral problems because they are unaware of the inappropriateness of their actions, and parents often believe they cannot bring about fundamental changes in their children's behavior. As a result, they either abandon efforts to intervene or attempt to manage their children using conventional parenting methods designed for typically developing children (Nazadi Kashani et al., 2011). Given the recognition that emotional and behavioral problems do not typically resolve on their own, there has been increasing attention to the prevention and treatment of these issues (Prakash et al., 2007; Totsika et al., 2022).

The presence of a child with an intellectual disability in a family is considered a crisis. Parents experience significant psychological stress and tension upon learning of their child's disability. Caring for a child with a disability or special needs imposes a considerable burden on all family members, with mothers often experiencing the greatest pressure, as they are typically responsible for the majority of caregiving and interactions with the child (Zhong et al., 2020).

Parents' attitudes toward their child's intellectual and physical condition depend on their level of acceptance (Akbari Sari et al., 2022). Parental acceptance refers to the degree of warmth, affection, and support provided by parents toward their child (Mendo Lázaro et al., 2019). Parents who lack acceptance do not genuinely enjoy being with their children. In extreme cases, this lack of acceptance may lead to parental rejection. The acceptance or rejection of a child with an intellectual disability is closely linked to the overall emotional and psychological adjustment of the mother (Hosseinzadeh et al., 2016). The final stage of parental development involves the acceptance of a child with an intellectual disability, which is marked by two key indicators: the extent to which the mother continues her usual activities and maintains social connections, and the degree to which both parents meet the needs of both their typically developing and intellectually disabled children (Mussen et al., 2020). Another variable that appears to be associated with behavioral problems in children with intellectual disabilities is maternal resilience.

According to Zautra et al. (2010), resilience is best defined as the ability to successfully adapt to adverse conditions (Zautra et al., 2010). A study by White (2014) demonstrated that the resilience levels of mothers of children with intellectual disabilities were lower than those of mothers of typically developing children (White & O'Hare, 2014). Similarly, Hadizadeh et al. (2016) examined the effectiveness of resilience training in improving mother-child relationships among mothers of children with intellectual disabilities. Their findings indicated that resilience training led to increased acceptance and support of these children by their mothers, thereby enhancing the mother-child relationship (Hosseinzadeh et al., 2016).

Research on the psychological well-being of parents of children with intellectual disabilities highlights the critical role of resilience, cognitive flexibility, and social support in mitigating stress and enhancing adaptive functioning. Nik-Kho and Hosseini Qomi (2021) examined the relationship between cognitive flexibility, psychological health, and resilience in mothers of children with intellectual disabilities, revealing that higher cognitive flexibility significantly predicted better psychological health and resilience (Nik Khou & Hosseini Qomi, 2021). Similarly, Mojavar et al. (2021) demonstrated that parent management training effectively reduced behavioral problems, including aggression, hyperactivity, and social maladjustment, in children with intellectual disabilities, reinforcing the importance of parental education in behavioral interventions (Mojaver et al., 2022). Furthermore, Moradi Kia et al. (2017) compared the effectiveness of emotion regulation and resilience training on mothers' psychological well-being, finding that resilience training was more effective in enhancing autonomy and psychological well-being than emotion regulation training (Moradi Kia et al., 2017). However, Nesaian and Asadi Gandomani (2016) found that social skills training did not lead to statistically significant improvements in behavioral problems among adolescents with intellectual disabilities, suggesting that a more integrated approach combining academic, vocational, and social skill training may be required (Nesaian & Asadi Gandomani, 2016). In contrast, Vaghari et al. (2015) reported that social skills training significantly reduced emotional-behavioral problems in male students with intellectual disabilities, highlighting the potential of structured interventions to promote social adaptation. Recent studies have further emphasized the importance of resilience and family cohesion in coping with the unique challenges faced by parents of children with disabilities (Vaghari et al., 2015). Biggs et al. (2024) explored family resilience during the COVID-19 pandemic and found that social support was a crucial predictor of lower parental stress and higher family resilience (Biggs et al., 2024). Similarly, Ma et al. (2023) identified a positive association between family adaptability and cohesion with parents' subjective well-being, mediated by active coping strategies and resilience (Ma et al., 2023). Additionally, Unwanli et al. (2023) confirmed that higher psychological resilience was associated with greater self-esteem in parents of children with special needs, reinforcing the importance of fostering resilience to support parental well-being (Unvanli et al., 2023). Collectively, these findings underscore the necessity of resilience-based interventions and social support mechanisms to improve the psychological health of parents and the behavioral outcomes of children with intellectual disabilities.

Thus, research has shown that parental acceptance is associated with greater psychological adjustment in children and adolescents, whereas parental rejection is linked to psychological disorders and emotional instability, which, in turn, contribute to more severe behavioral problems in children and impose additional burdens on families and society. Therefore, identifying and controlling the key variables influencing behavioral problems in children with intellectual disabilities is crucial for minimizing these issues. Furthermore, few studies have simultaneously examined the research variables in an integrated manner, leaving a gap in the literature. Additionally, a general assumption about relationships between psychological variables is that they are rarely linear or simple. Instead, multiple variables tend to interact both directly and indirectly, often contributing to psychological distress and disorders (Baratian et al., 2021). One variable that appears to mediate the relationship between maternal resilience and acceptance and behavioral problems in children with intellectual disabilities is aggression.

Based on the aforementioned considerations, the present study aims to predict behavioral problems in students with intellectual disabilities based on maternal acceptance and resilience while examining the mediating role of aggression

## 2. Methods and Materials

### *2.1. Study Design and Participants*

The present study follows a descriptive correlational design based on structural equation modeling (SEM), where behavioral problems serve as the dependent variable, acceptance and resilience as the predictor variables, and aggression as the mediating variable. The statistical population included all male and female students with intellectual disabilities in Shiraz who were enrolled in school during the 2023–2024 academic year. The sample group consisted of 127 students with intellectual disabilities, including 90 boys and 37 girls, who were studying in special education schools in Shiraz. The participants were selected through convenience sampling. All research instruments were compiled into a single questionnaire. The researcher distributed the questionnaire to the classrooms where students with intellectual disabilities were present, and before administering the tests, the research objectives and

instructions for responding to the tests were explained to the participants.

### 2.2. Measures

#### 2.2.1. Resilience

This scale was developed by Connor and Davidson (2003) based on a review of resilience-related research from 1979 to 1991. It consists of 25 items that measure resilience on a five-point Likert scale ranging from 0 to 5. The minimum resilience score for a participant is 0, while the maximum score is 100. The scale includes five factors: personal competence, trust in one's instincts and tolerance for negative emotions, acceptance of change and secure relationships, control, and spiritual influences. The scale was standardized in Iran by Mohammadi (2005). The reliability of this questionnaire, measured using Cronbach's alpha coefficient, was reported as 0.93, with item-total correlations ranging from 0.41 to 0.64 (Hosseini Qomi & Hafezi, 2017).

#### 2.2.2. Behavioral Problems

Conners' Parent Rating Scale—Short Form: To collect data on behavioral problems, the Conners' Parent Rating Scale—Short Form, which consists of 48 items, was used. This scale is completed by parents and follows a four-point Likert response format, coded as 0, 1, 2, and 3. It assesses behavioral issues in children across four domains: conduct problems, social problems, psychosomatic problems, and anxiety/shyness. Goyette, Conners, and Ulrich (1978) calculated the reliability of the questionnaire using the split-half method, which resulted in a reliability coefficient of 0.71, with its content validity confirmed (Hemmati Alamdarlo, 2014). In the present study, Cronbach's alpha was used to measure reliability, yielding values of 0.65 for conduct problems, 0.58 for social problems, 0.75 for psychosomatic problems, 0.63 for anxiety/shyness, and 0.78 for the total score. Internal consistency reliability was assessed by correlating each item with its respective subscale, yielding correlations ranging from 0.54 to 0.81.

#### 2.2.3. Acceptance

This questionnaire was developed by Bond, Hayes, Baer, Carpenter, Gönül, Zettle, and colleagues (2011) to assess psychological inflexibility, particularly in relation to experiential avoidance and the tendency to engage in actions despite unwanted thoughts and emotions. It consists of 10 items and two subscales: experiential avoidance (7 items) and control over life (3 items). Responses are rated on a seven-point Likert scale (1 = never true to 7 = always true), with total scores ranging from 10 to 70, where higher scores indicate greater psychological flexibility. Bond et al. (2011) demonstrated satisfactory construct validity in a sample of 2,816 participants across six different studies. The reliability of the instrument was confirmed using Cronbach's alpha (0.84) and test-retest reliability over 3 to 12 months, yielding coefficients of 0.81 and 0.79, respectively. In Iran, this tool was validated by Abbasi, Fathi, Moloudi, and Zarrabi (2012), who confirmed the two-factor structure of experiential avoidance and control over life. The reliability coefficients using Cronbach's alpha and split-half reliability were reported as 0.89 and 0.71, respectively (Akbari Sari et al., 2022; Baratian et al., 2021).

#### 2.2.4. Aggression

The revised version of the Aggression Questionnaire, initially known as the Hostility Questionnaire, was developed by Buss and Perry (1992). This self-report instrument consists of 29 items divided into four subscales: physical aggression, verbal aggression, anger, and hostility. Responses are rated on a five-point Likert scale (1 = not at all like me to 5 = completely like me). Items 9 and 16 are reverse-scored. The total aggression score is obtained by summing the subscale scores. The Aggression Questionnaire has demonstrated acceptable validity and reliability. Test-retest reliability coefficients for the four subscales over a nine-week interval ranged from 0.72 to 0.80, while inter-correlations among the subscales ranged from 0.38 to 0.49. Internal consistency was assessed using Cronbach's alpha, yielding reliability coefficients of 0.82 for physical aggression, 0.81 for verbal aggression, 0.83 for anger, and 0.80 for hostility (Buss & Perry, 1992). In a cross-sectional study, Samani (2007) evaluated 492 university students (248 males and 244 females) aged 18 to 22, selected through a cluster-random sampling method, using the Buss-Perry Aggression Questionnaire. The data were analyzed using correlation analysis, factor analysis, and t-tests. Factor analysis identified four dimensions: behavioral aggression, anger, physical and verbal aggression, and resentment/mistrust. The test-retest reliability of the questionnaire was reported as 0.78. Additionally, a comparison between male and female participants indicated that males scored significantly higher in aggression ($p < 0.01$), anger ($p < 0.01$), and mistrust ($p < 0.01$) than females (Nazadi Kashani et al., 2011).



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### 2.3. *Data Analysis*

To provide an overview of the research variables and examine the necessary assumptions for statistical analysis, descriptive statistics, including frequency, percentage, mean, and standard deviation, were used to describe demographic and main variables. In the inferential analysis, Pearson's correlation test and structural equation modeling were employed to address the research questions. Data analysis was conducted using SPSS version 27 and SmartPLS software. The maximum alpha error level for hypothesis testing was set at 0.05 ($p < 0.05$).

## 3. Findings and Results

Initially, the descriptive characteristics of the research variables were reported (Table 1).

**Table 1**

*Descriptive Statistical Indices of Research Variables*

| Variables | Mean | Standard Deviation | Minimum | Maximum | Skewness | Kurtosis |
|---|---|---|---|---|---|---|
| Conduct Problems | 0.79 | 0.36 | 0.38 | 1.5 | 0.95 | -0.2 |
| Learning Problems | 1.16 | 0.37 | 0.75 | 1.75 | 0.28 | -1.37 |
| Psychosomatic Problems | 0.70 | 0.26 | 0.25 | 1 | -0.49 | -1 |
| Hyperactivity/Impulsivity | 1.16 | 0.40 | 0.50 | 1.75 | -0.18 | 0.84 |
| Resilience | 1.94 | 0.88 | 0.72 | 3 | -0.26 | 1.50 |
| Acceptance | 4.64 | 1.28 | 3.29 | 7 | 0.67 | 0.54 |
| Aggression | 2.57 | 0.68 | 1.83 | 3.9 | 1.6 | -0.13 |

Based on Table 1, the mean for conduct problems was 0.79 with a standard deviation of 0.36, the mean for learning problems was 1.16 with a standard deviation of 0.37, the mean for psychosomatic problems was 0.70 with a standard deviation of 0.26, the mean for resilience was 1.94 with a standard deviation of 0.88, the mean for aggression was 2.57 with a standard deviation of 0.68, and the mean for acceptance was 4.64.

Since one of the assumptions for analyzing causal relationships is the absence of multicollinearity among variables, the correlation coefficient matrix for the study variables is presented in Table 2.

**Table 2**

*Correlation Coefficient Matrix Among Research Variables*

| Variables | Conduct | Learning | Psychosomatic | Hyperactivity | Aggression | Acceptance | Resilience |
|---|---|---|---|---|---|---|---|
| Conduct Problems | 1 | | | | | | |
| Learning Problems | 0.24 | 1 | | | | | |
| Psychosomatic Problems | 0.72 | 0.70 | 1 | | | | |
| Hyperactivity/Impulsivity | 0.35 | 0.63 | 0.70 | 1 | | | |
| Aggression | 0.63 | -0.40 | 0.12 | 0.50 | 1 | | |
| Acceptance | -0.33 | 0.43 | 0.39 | -0.50 | -0.60 | 1 | |
| Resilience | 0.22 | 0.73 | 0.40 | -0.14 | 0.22 | 0.32 | 1 |

All $p<0.05$

Table 2 indicates a significant relationship between the independent variables, resilience and acceptance, and behavioral problems ($p < 0.05$). The direction of the relationship between hyperactivity and resilience was negative, indicating that an increase in resilience leads to a reduction in hyperactivity. However, conduct problems, learning difficulties, psychosomatic problems, and aggression had a direct relationship with resilience. The relationship between conduct problems, hyperactivity, and aggression with acceptance was negative. Additionally, aggression had a negative correlation with learning problems.


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**Table 3**

*Reliability and Convergent Validity Analysis*

| Variables | Cronbach's Alpha | Composite Reliability | Average Variance Extracted (AVE) | $R^2$ |
|---|---|---|---|---|
| Resilience | 0.96 | 0.98 | 0.94 | |
| Psychosomatic Problems | 0.98 | 0.94 | 0.97 | 0.40 |
| Conduct Problems | 0.92 | 0.95 | 0.90 | 0.36 |
| Acceptance | 0.87 | 0.84 | 0.84 | 0.46 |
| Aggression | 0.89 | 0.91 | 0.88 | 0.56 |
| Hyperactivity/Impulsivity | 0.90 | 0.87 | 0.92 | 0.41 |
| Learning Problems | 0.89 | 0.94 | 0.86 | 0.99 |

Table 3 presents the reliability and validity of the research model. Convergent validity reflects the degree of correlation between each factor and its related items. It indicates the extent to which a newly developed scale is closely correlated with other variables and criteria that measure the same construct. A construct should be highly correlated with relevant variables and exhibit low or no correlation with unrelated variables.

**Table 4**

*Fornell-Larcker Discriminant Validity Analysis*

| Variables | Resilience | Psychosomatic | Conduct | Acceptance | Aggression | Hyperactivity | Learning |
|---|---|---|---|---|---|---|---|
| Resilience | 1 | | | | | | |
| Psychosomatic | 0.40 | 1 | | | | | |
| Conduct | 0.223 | 0.726 | 1 | | | | |
| Acceptance | 0.323 | 0.396 | -0.334 | 1 | | | |
| Aggression | 0.227 | 0.121 | 0.633 | -0.604 | 1 | | |
| Hyperactivity | -0.14 | -0.033 | 0.351 | -0.505 | 0.05 | 1 | |
| Learning | 0.73 | 0.07 | -0.247 | 0.428 | -0.408 | 0.023 | 1 |

One of the methods for evaluating discriminant validity is the Fornell-Larcker criterion, which assesses cross-loadings. Each item should have a stronger factor loading on its respective construct compared to other constructs. As shown in the figure, general attitude showed a strong loading on its respective construct (0.988), general attitude with negative attitude (0.928), general attitude with positive attitude (0.796), negative attitude with its respective construct (0.861), and with positive attitude (0.778), and positive-positive attitude (0.829). These results confirm that all constructs have stronger factor loadings on their respective variables compared to other constructs, ensuring that the overall attitude scale toward artificial intelligence exhibits suitable discriminant validity.

**Table 5**

*Direct Effects of Variables*

| Type of Effect | Direct Effect | Standard Error | t-value | p-value | Result |
|---|---|---|---|---|---|
| Resilience → Psychosomatic Problems | 0.50 | 0.36 | 3.48 | $p < 0.10$ | Confirmed |
| Acceptance → Psychosomatic Problems | 0.69 | 0.29 | 3.80 | $p < 0.10$ | Confirmed |
| Aggression → Psychosomatic Problems | 0.53 | 0.41 | 5.62 | $p < 0.10$ | Confirmed |
| Resilience → Learning Problems | 1.12 | 0.36 | 3.48 | $p < 0.10$ | Confirmed |
| Acceptance → Learning Problems | -0.52 | 0.29 | 3.80 | $p < 0.10$ | Confirmed |
| Aggression → Learning Problems | -0.98 | 0.41 | 5.62 | $p < 0.10$ | Confirmed |
| Resilience → Hyperactivity/Impulsivity | 0.31 | 0.36 | 3.48 | $p < 0.10$ | Confirmed |
| Acceptance → Hyperactivity/Impulsivity | -0.97 | 0.29 | 3.80 | $p < 0.10$ | Confirmed |
| Aggression → Hyperactivity/Impulsivity | -0.61 | 0.41 | 5.62 | $p < 0.10$ | Confirmed |
| Resilience → Conduct Problems | 0.71 | 0.36 | 3.48 | $p < 0.10$ | Confirmed |
| Acceptance → Conduct Problems | 0.25 | 0.29 | 3.80 | $p < 0.10$ | Confirmed |
| Aggression → Conduct Problems | 0.63 | 0.41 | 5.62 | $p < 0.10$ | Confirmed |


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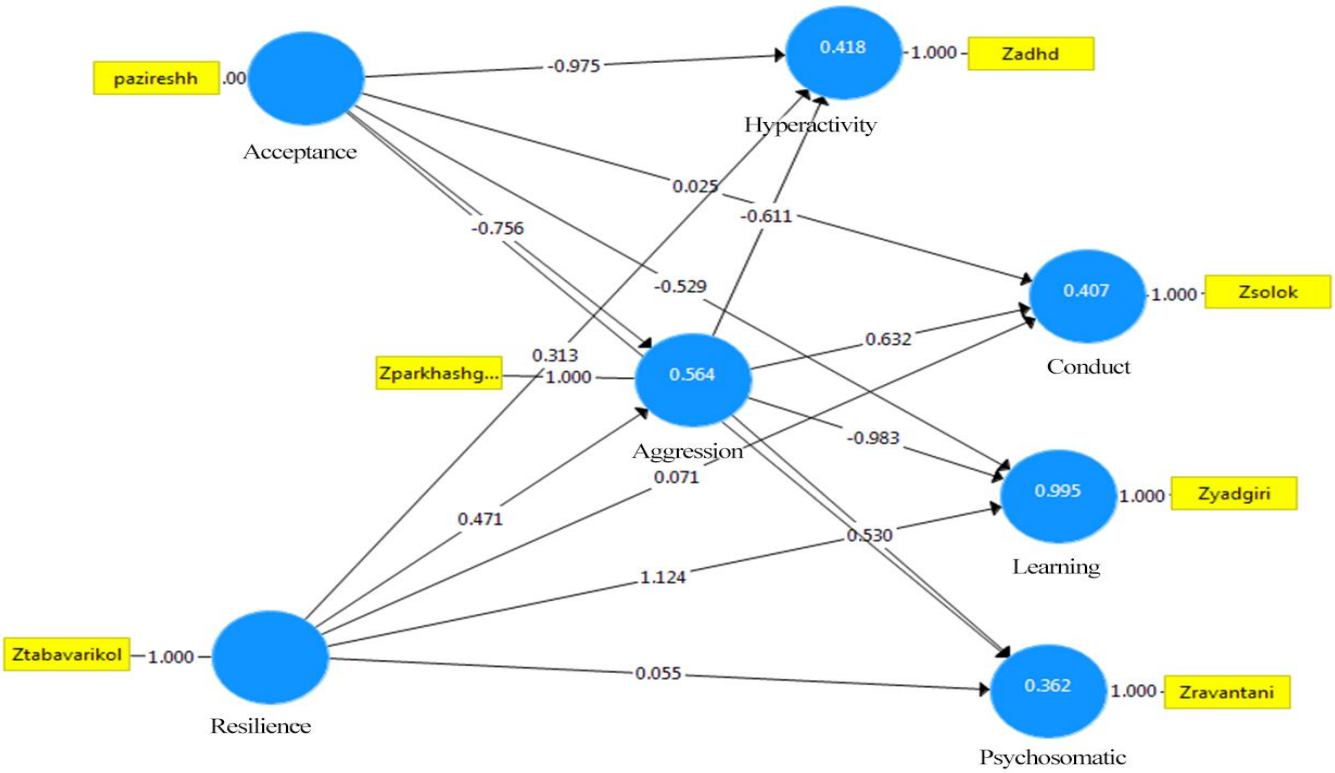
Based on Table 5, resilience, acceptance, and aggression all have a positive relationship with psychosomatic problems. Resilience has a positive relationship with learning problems, while acceptance and aggression have a negative relationship with learning problems. Resilience is positively associated with hyperactivity/impulsivity, whereas acceptance and aggression have a negative relationship with hyperactivity/impulsivity. Resilience, acceptance, and aggression all show a positive relationship with conduct problems.

**Figure 1**

*Final Research Model*




The results indicate that aggression serves as a positive mediator in the relationships between resilience and psychosomatic problems, resilience and conduct problems, acceptance and hyperactivity/impulsivity, and acceptance and learning problems. Additionally, aggression plays a negative mediating role in the relationships between resilience and learning problems, resilience and hyperactivity/impulsivity, acceptance and psychosomatic problems, and acceptance and conduct problems.

**Table 6**

*Indirect Effects*

| Type of Effect | Indirect Effect | Standard Error | t-value | p-value | Result |
|---|---|---|---|---|---|
| Resilience → Aggression → Psychosomatic Problems | 0.25 | 0.36 | 3.48 | p < 0.10 | Confirmed |
| Resilience → Aggression → Conduct Problems | 0.29 | 0.29 | 3.80 | p < 0.10 | Confirmed |
| Resilience → Aggression → Learning Problems | -0.46 | 0.41 | 5.62 | p < 0.10 | Confirmed |
| Resilience → Aggression → Hyperactivity/Impulsivity | -0.28 | - | - | - | Confirmed |
| Acceptance → Aggression → Psychosomatic Problems | -0.40 | 0.36 | 3.48 | p < 0.10 | Confirmed |
| Acceptance → Aggression → Conduct Problems | -0.47 | 0.29 | 3.80 | p < 0.10 | Confirmed |
| Acceptance → Aggression → Hyperactivity/Impulsivity | 0.46 | 0.41 | 5.62 | p < 0.10 | Confirmed |
| Acceptance → Aggression → Learning Problems | 0.74 | 0.37 | 4.30 | p < 0.10 | Confirmed |

## 4. Discussion and Conclusion

The findings of this study demonstrated that maternal resilience and acceptance are significant predictors of behavioral problems in children with intellectual disabilities, with aggression playing a mediating role in these relationships. Specifically, higher maternal resilience and acceptance were associated with fewer behavioral problems in children, including conduct problems, learning difficulties, psychosomatic symptoms, and hyperactivity-impulsivity. Moreover, aggression was found to mediate the effect of maternal resilience and acceptance on behavioral problems, indicating that lower maternal acceptance and resilience contribute to heightened aggression in children, which in turn exacerbates behavioral issues. These results align with the broader literature emphasizing the importance of maternal psychological well-being in shaping the emotional and behavioral development of children with intellectual disabilities.

The significant negative relationship between maternal resilience and behavioral problems in children with intellectual disabilities is consistent with prior studies demonstrating the protective role of resilience in coping with parenting stress and fostering adaptive parenting behaviors (Nik Khou & Hosseini Qomi, 2021). Mothers with higher resilience are better equipped to manage the challenges of raising a child with special needs, which in turn reduces the likelihood of behavioral problems in children. Previous research has indicated that resilience enhances a parent's ability to maintain emotional stability, problem-solving skills, and effective stress management strategies, all of which contribute to healthier parent-child interactions and better behavioral outcomes in children (Biggs et al., 2024). Additionally, resilience has been linked to increased self-efficacy and emotional regulation in parents, which may help them provide consistent and supportive caregiving environments that minimize behavioral disturbances in children (Moradi Kia et al., 2017).

Similarly, the significant negative association between maternal acceptance and behavioral problems in children corroborates existing research suggesting that parental acceptance fosters emotional security and adaptive behavior in children. Acceptance refers to the ability of parents to acknowledge and embrace their child's condition without excessive distress or avoidance, which has been linked to greater psychological adjustment in both parents and children (Unvanli et al., 2023). The present study's findings align with those of Ma et al. (2023), who reported that family cohesion and adaptability significantly predict parental well-being, which in turn influences children's behavioral outcomes (Ma et al., 2023). When parents exhibit high levels of acceptance, children are more likely to experience emotional stability, reduced anxiety, and improved self-regulation, leading to lower rates of aggression and disruptive behavior (Mojaver et al., 2022).

Aggression was found to play a mediating role between maternal resilience and behavioral problems, as well as between maternal acceptance and behavioral problems. This finding is supported by previous studies indicating that emotional and behavioral dysregulation in children with intellectual disabilities is often exacerbated by parental stress and ineffective coping mechanisms (Nesaian & Asadi Gandomani, 2016). Aggression serves as a maladaptive coping strategy for children who struggle with frustration, emotional regulation, and communication difficulties. When maternal resilience is low, parents may be less capable of managing their children's aggressive behaviors effectively, leading to increased behavioral problems (Vaghari et al., 2015). Moreover, when maternal acceptance is low, children may experience feelings of rejection or neglect, further contributing to frustration and aggression, which subsequently intensifies behavioral problems (Biggs et al., 2024).

The results of this study also align with previous research demonstrating the effectiveness of parental training interventions in reducing behavioral problems in children with intellectual disabilities (Mojaver et al., 2022). When mothers receive appropriate training and support, they develop more adaptive parenting strategies, which can help mitigate the negative impact of aggression and other behavioral issues. For instance, Moradi Kia et al. (2017) found that resilience training was more effective than emotion regulation training in enhancing maternal well-being and improving child outcomes (Moradi Kia et al., 2017). This supports the notion that strengthening maternal resilience through targeted interventions may serve as an effective strategy for reducing behavioral problems in children.

Furthermore, the negative relationship between maternal acceptance and hyperactivity-impulsivity found in this study aligns with prior findings suggesting that children who experience higher levels of parental acceptance exhibit better self-regulation and attentional control (Nik Khou & Hosseini Qomi, 2021). This supports the idea that interventions aimed at increasing parental acceptance may

contribute to reductions in hyperactive and impulsive behaviors in children with intellectual disabilities. Similarly, the findings regarding the negative association between aggression and learning difficulties reinforce previous studies suggesting that aggressive behaviors often interfere with cognitive engagement and academic performance in children with special needs (Nesaian & Asadi Gandomani, 2016). Addressing aggression through parental interventions and behavioral therapies may thus have a positive impact on both emotional and academic development in these children.

The results of this study also provide important implications for intervention strategies aimed at supporting parents of children with intellectual disabilities. Given that both resilience and acceptance were found to be protective factors against behavioral problems, interventions designed to enhance these characteristics in parents may serve as effective approaches for improving child outcomes. Consistent with previous research (Biggs et al., 2024), family-based interventions that emphasize coping strategies, emotional support, and structured parenting techniques may be particularly beneficial in fostering resilience and acceptance among parents. Additionally, the findings suggest that reducing aggression in children should be a primary focus of behavioral interventions, as it plays a significant mediating role in the development of behavioral problems.

Despite the valuable contributions of this study, several limitations should be acknowledged. First, the use of self-report measures for assessing maternal resilience, acceptance, and children's behavioral problems may have introduced response biases, as participants might have provided socially desirable answers rather than accurate reflections of their experiences. Future studies should incorporate multiple informants, including teachers and clinicians, to obtain a more comprehensive assessment of children's behavioral problems. Second, the study was conducted within a specific cultural and geographical context, which may limit the generalizability of the findings to other populations. Cross-cultural research is needed to determine whether similar relationships exist in different cultural settings. Third, the study employed a cross-sectional design, which does not allow for causal inferences. Longitudinal studies should be conducted to examine how changes in maternal resilience and acceptance over time influence the trajectory of children's behavioral problems.

Future research should explore additional factors that may contribute to behavioral problems in children with intellectual disabilities, such as parental mental health, family socioeconomic status, and environmental stressors. Investigating the role of paternal resilience and acceptance in child development would also provide a more comprehensive understanding of family dynamics. Moreover, future studies should examine the effectiveness of targeted interventions designed to enhance maternal resilience and acceptance and assess their long-term impact on children's behavioral outcomes. Research should also focus on identifying the most effective strategies for reducing aggression in children with intellectual disabilities, particularly in relation to parental training programs. Additionally, experimental designs with randomized controlled trials would strengthen the evidence base for the causal relationships identified in this study.

Based on the findings, practitioners working with families of children with intellectual disabilities should prioritize interventions that enhance maternal resilience and acceptance. Providing resilience training programs for mothers may help them develop adaptive coping strategies and improve their overall well-being, which in turn can lead to better child outcomes. Support groups and psychoeducational programs focusing on parental acceptance can also be beneficial in reducing parental stress and fostering positive parent-child relationships. Given the mediating role of aggression, behavioral interventions targeting aggression management should be incorporated into treatment plans for children with intellectual disabilities. Schools and special education programs should implement strategies that promote emotional regulation and social skills training for these children. Lastly, multidisciplinary approaches involving psychologists, educators, and social workers should be utilized to provide comprehensive support for families, ensuring that both parents and children receive the necessary resources to enhance their psychological and behavioral well-being.

## Authors' Contributions

Authors contributed equally to this article.

## Declaration

In order to correct and improve the academic writing of our paper, we have used the language model ChatGPT.

## Transparency Statement

Data are available for research purposes upon reasonable request to the corresponding author.

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## Declaration of Interest

The authors report no conflict of interest.

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## Ethical Considerations

The study protocol adhered to the principles outlined in the Helsinki Declaration, which provides guidelines for ethical research involving human participants.

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