Original Article

Maternal Sadness in the Context of Developmental Disabilities: A Cross-Sectional Study of Autism, Down Syndrome, and Intellectual Disability

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ABSTRACT

Background: Mothers of children with special needs are vulnerable to emotional challenges; however, specific emotional responses such as sadness remain underexplored in the literature. This study aimed to describe the levels of sadness among mothers of children with Autism Spectrum Disorder (ASD), Down syndrome, and intellectual disabilities.

Methods: A cross-sectional descriptive study was conducted between July and December 2025 involving 62 mothers recruited through purposive sampling. Data were collected using a self-reported questionnaire consisting of 15 Likert-scale items measuring sadness levels. Scores ranged from 0 to 60 and were categorized into four levels. Data were analyzed using descriptive statistics, ANOVA, and chi-square tests with a significance level of $p < 0.05$.

Results: The majority of respondents reported moderate to high levels of sadness. The highest mean sadness score was observed among mothers of children with ASD (M = 49.30), followed by Down syndrome (M = 48.67), both indicating high levels. In contrast, mothers of children with intellectual disabilities reported moderate levels (M = 44.25). There was a significant difference in sadness levels across disability types ($p = 0.001$). Bivariate analysis showed that maternal education, occupation, family income, and type of disability were significantly associated with sadness levels ($p < 0.05$), whereas maternal age, child's age, and gender were not ($p > 0.05$).

Conclusion: Sadness is a prevalent emotional response among mothers of children with special needs, with variations across disability types and socioeconomic factors. These findings highlight the importance of targeted psychosocial support to improve maternal well-being.

Keywords: Autism Spectrum Disorder; intellectual disability; Down syndrome; maternal mental health; developmental disabilities.

Implications for Practice:

- Routine screening for emotional distress, including sadness, may be incorporated into child health services using simple and validated tools to help identify mothers who may need support.
- Mothers with elevated sadness levels may receive psychoeducation and brief supportive care from nurses to help them understand and manage their emotional experiences.

Implications for Practice:

- Referral pathways to mental health services and collaboration with multidisciplinary teams may be strengthened to ensure comprehensive and continuous support within a family-centered care approach.

Introduction

Estimates derived from UNICEF and the Global Burden of Disease Study represent the most comprehensive global evidence on the prevalence of childhood disabilities. UNICEF reports that approximately 28.9 million (4.3%) children aged 0–4 years and 207.4 million (12.5%) aged 5–17 years experience moderate-to-severe disabilities, totaling 236.4 million (10.1%) among those aged 0–17 years, or an estimated 266 million individuals aged 0–19 years globally. In contrast, GBD 2019 provides higher estimates when mild-to-severe conditions are included: 49.8 million (7.5%) children under 5 years, 241.5 million (12.6%) aged 5–19 years, and a total of 291.3 million (11.3%) individuals under 20 years affected. Both datasets consistently indicate that Sub-Saharan Africa and South Asia account for more than half of the global burden. Differences between the estimates are particularly evident in children under 5 years, where prevalence rates vary by more than ±3 percentage points, whereas estimates for older age groups (5–19 years) show greater consistency. These discrepancies likely reflect variations in definitions and measurement approaches, yet collectively highlight the substantial and widespread burden of childhood disability worldwide (Kancherla et al., 2022)

The burden of disability in Indonesia shows a trend that is getting more attention in the latest national survey. Based on the 2023 Indonesian Health Survey report released by the Ministry of Health of the Republic of Indonesia, the prevalence of disability in the population of children aged 5–17 years includes various types of functional limitations, including intellectual disabilities (around 1.0%), mental (0.8%), physical (0.4%), communication (0.5%), and sensory (0.2%). These findings suggest that non-physical disabilities, particularly intellectual and mental, tend to be more dominant than other types (Kementerian Kesehatan RI, 2023).

Mothers, as the primary caregivers of children with disabilities, encounter multifaceted challenges encompassing psychological, social, and caregiving domains. The caregiving experience is often characterized by the emergence of *silent burnout*, manifested through chronic anxiety, persistent physical and emotional exhaustion, and ongoing financial strain. Furthermore, the high intensity of caregiving demands frequently leads mothers to neglect their own needs (*self-neglect*) and experience role conflict, both of which contribute to a decline in overall quality of life. Prolonged caregiving burden further exacerbates vulnerability to adverse mental health outcomes, including heightened levels of stress, anxiety, depression, and ultimately caregiver burnout(Matthews et al., 2021).

Caring for children with disabilities imposes substantial psychosocial burdens on caregivers, particularly mothers who predominantly assume the primary caregiving role. These caregiving demands extend beyond physical responsibilities to include significant emotional strain, psychological stress, and restrictions in social participation. Such challenges are further exacerbated by inadequate social support, limited access to healthcare and rehabilitation services, and persistent societal stigma surrounding disability. Moreover, the high level of care required by children with disabilities necessitates intensive and sustained caregiver involvement, which may ultimately compromise caregivers' quality of life and overall psychological well-being (Abredari et al., 2026)

Various experiences of parents arise before, during, and after their children are diagnosed with growth and development problems, such as autism spectrum disorder, Cerebral Palsy, and other

disabilities. For parents, the impact of having a child with autism spectrum disorder will cause emotional problems such as stress and family conflict (Jiu & Rungreangkulkij, 2019a). In this regard, a large body of literature indicates that parents may feel sadness, loss, and uncertainty. This affects them physically and mentally, as well as their health problems. Apart from that, they are also increasingly burdened in caring for children because of the condition of children with special needs. Especially those with limited access to education and health services even face social isolation (Zulfia, Rahmatuz, Allenidekania, 2020).

Although not all parents who have children with special needs, such as growth and development disorders feel the negative impact of having such children. They use positive coping strategies, such as praying more, reading the Koran, worshiping, taking their children for walks, going to school, making crafts, walking out, cooking, and reading (Karaca & Konuk Şener, 2021). Parents who have children with autism spectrum disorder also feel the same thing; some parents feel more religious and more devout in worship because they think that autistic children are a destiny and a test from God (Jiu & Rungreangkulkij, 2019c). Meanwhile, some parents who have children with autism spectrum disorder, attention deficit hyperactivity disorder or learning disabilities use more positive thinking as a solution to be more successful in managing their lives by learning to accept, looking for the positive side of their children. They also can develop and always be optimistic that children have a future and hope (Heiman, 2021).

Raising children with special needs is a challenge for parents, especially mothers who directly provides care for their children. Previous research results show that mothers are the main caregivers of children with autism spectrum disorder at home who are vulnerable to experiencing physical and emotional health problems. Some children with autism spectrum disorder are not yet able to independently carry out daily activities such as personal hygiene. They are unable to put on their own clothes and take care of other daily needs. To fulfill all those necessities, mothers play a dominant role in meeting the child's needs (Jiu & Rungreangkulkij, 2019b). Moreover, some families who have children with autism are at risk of experiencing marital conflict and even divorce cases due to their inability to manage the existing problems (Jiu & Rungreangkulkij, 2019a). Previous research results also show that parents who have children with autism spectrum disorder, Attention Deficit Hyperactivity Disorder, or learning disabilities express ongoing feelings of sadness or feelings of unhappiness, failure as parents, shame, frustration, anxiety, stress, and feelings of loss, which accompany their everyday lives when raising their children with special needs (Heiman, 2021).

Every mother has a different experience caring for a child with special needs. The mother's experiences can be grouped into pre-diagnosis, during-diagnosis, and post-diagnosis. The strongest experiences were found after diagnosis, where experiencing loneliness, physical and mental health problems, burdens, social isolation, maternal care, maternal needs, maternal needs in carrying out parenting roles, obstacles in carrying out parenting roles, and positive aspects of caring for children with special needs (Zulfia & Allenidekania, 2020). Additionally, according to Yarar and colleagues, it was obvious that mothers who have disabled children would experience issues in their social and familial lives. By the same token, mothers suffer personal challenges and imbalances as a result of the psychological and physical strain, which in

the same time also affects their level of anxiety and sadness (Yarar et al., 2020).

This study addresses a notable gap in the literature concerning the emotional experiences of mothers of children with special needs. While prior research has extensively examined broader psychological constructs such as stress, anxiety, and depression, there remains limited focus on specific emotional states such as sadness, particularly from a descriptive perspective. In addition, existing studies tend to emphasize aggregated or general psychological outcomes, with insufficient attention to how sadness is distributed across different maternal and child characteristics. This gap highlights the urgency of providing a more focused and context-specific understanding of sadness, which is essential for informing appropriate and responsive support strategies. The novelty of this study lies in its emphasis on sadness as a distinct emotional construct and its effort to present a descriptive overview of its levels among mothers of children with Autism Spectrum Disorder, Down syndrome, and intellectual disabilities. Therefore, this study aims to describe the levels of sadness among mothers of children with special needs, offering an initial empirical basis for understanding emotional patterns within this population.

Furthermore, prior research has largely relied on average psychological outcomes, thereby overlooking disparities across maternal and child-related characteristics that are essential for developing targeted interventions. By conceptualizing sadness as a distinct emotional construct and analyzing its variation across specific groups, this study advances existing research by revealing heterogeneity that is often obscured in aggregate analyses. Apart from that, it is important to raise this issue because the results of previous research show that mothers who provide care for children with special needs will experience a huge impact, both negative and positive, on their lives. In particular, if they use effective coping and self-management strategies, they may experience positive outcomes. They believe whatever condition a child is born with is destined by God, and they must accept it (Jiu & Rungreangkulkij, 2019c; Junaidi & Dewantoro, 2020; Trihastuti et al., 2023). Sadness in the early stages may be something normal, but if sadness is prolonged, it can make parents depressed and affect family life. Therefore, through this research, the researcher hopes to find out the level of sadness of mothers who have children with autism spectrum disorder, Down syndrome, and intellectual disabilities. So that early intervention and prevention can be carried out to improve the quality of life and positive family parenting patterns for children with special needs.

The findings of this study highlight important implications for nursing practice, particularly in the early identification and management of caregiver emotional distress among mothers of children with special needs. Nurses working in primary care, pediatric, and community health settings play a critical role in integrating routine screening for caregiver distress, including sadness, using brief and validated assessment tools during regular child health services. Such early identification may support timely recognition of emotional challenges and facilitate appropriate follow-up care. Furthermore, establishing structured referral pathways to mental health services, counseling, and caregiver support programs is essential to ensure continuity and comprehensive care. Incorporating psychoeducation and family-centered care into routine nursing practice may further help mothers understand and manage their emotional experiences. These practice implications align with recent

evidence highlighting the importance of addressing caregiver well-being as an integral component of holistic child healthcare (Ahmad et al., 2026).

Despite the growing body of research on parental psychological distress, most studies have predominantly focused on general constructs such as stress, anxiety, and depression, with limited attention given to more specific emotional experiences. This imbalance has resulted in an incomplete understanding of the nuanced emotional responses experienced by mothers of children with special needs. Moreover, variations in emotional outcomes across different child disability types remain insufficiently explored. Therefore, a more focused investigation into sadness as a distinct emotional construct is warranted to provide deeper insight into maternal emotional well-being and to inform the development of more tailored and effective support interventions.

Methods

Study Design

This study adopted a cross-sectional descriptive-analytical design to assess the level of sadness among mothers of children with special needs at a single point in time, without longitudinal follow-up. This approach enabled the simultaneous evaluation of the distribution of sadness levels and their associations with selected maternal and child-related characteristics.

Beyond its descriptive scope, the study incorporated an analytical component by examining the relationships between independent variables (maternal age, education, occupation, family income, child's age, gender, and type of disability) and the dependent variable (level of sadness). The application of bivariate statistical analyses, including chi-square and one-way ANOVA tests, further substantiates the classification of this study as descriptive-analytical.

Participants

Study participants were mothers of children with Autism Spectrum Disorder, Down syndrome, and Intellectual disabilities attending services at the Therapy Center for children with special needs in Pontianak city and its surroundings. A total of 62 responses were received. Mothers of children who screened positive for these special needs, such as autism spectrum disorder, as measured by a psychiatric clinical officer, were enrolled in this study. Mothers were included in this study if they were 1) having a child with disabilities such as autism spectrum disorder, Down syndrome, and Intellectual disabilities; 2) mothers who have a spouse or husband; 3) mothers who live in the same house with children with special needs; 4) Mothers as the main caregivers of children with special needs. At the same time, the exclusion criteria include: 1) single mothers; 2) children whose care is assisted by a babysitter; 3) mothers who have children with multiple disabilities. Exclusion criteria were applied to reduce measurement bias in assessing emotional states and to control for the potential confounding influence of marital status, thereby ensuring a more accurate estimate of sadness levels among mothers.

Instruments

The questionnaire was developed by the researcher himself and consisted of 15 Likert statements. The following 15 statements in the questionnaire include: I am sad when I see my child's condition; Until now I have not been able to accept the condition of my child with special needs; I am ashamed of my son's current condition; I want to cry if I remember my son's condition; I am sad when my son's condition becomes the topic of other people's conversation; I am sad to think about my child's future; I was desperate for my child with special needs; My health was disturbed

because I thought about the condition of my child with special needs; I fight with my partner just because of my childcare issues; Having a child with special needs has increased my expenses; I lack confidence when taking my child with special needs out of the house; I felt my son's condition was a punishment from God for my family; I feel the burden of my life increases when my child's condition is not perfect like other normal children; I feel uncomfortable when someone else asks about my child's condition; My family refused my son's attendance because of his condition.

The scale ranges from a score of 0 = never; 1 = rarely, 2 = sometimes; 3 = often, and 4 = always. Meanwhile, the measurement used to record the results of assessing the level of sadness was a scale with a score range of 0 – 60. This scale range consists of 4 levels of sadness. Score 0 – 15 = normal; score 16 - 30 = mild-level of sadness; score 31 - 45 = moderate level of sadness, and score 46 - 60 = Severe level of sadness.

This questionnaire has been tested for validity and reliability on 30 respondents. The validity test results showed that all 15 statement items were declared valid with the lowest validity value of 0.530 and the highest value of 0.971 and a Cronbach's alpha value of 0.967. Apart from that, the researcher also carried out content validity using expert judgment, such as consulting with psychology experts. The results of the consultation were then used as input to refine the instrument so that it was suitable for use in data collection.

Data Collection

Data collection was carried out from 20 July 2025 to 30 December 2025. Data were gathered using a structured and standardized approach to ensure the rigor and reliability of the study. Primary data were collected through a self-administered questionnaire aimed at assessing the level of sadness among mothers of children with special needs, along with their socio-demographic profiles. The instrument comprised two sections: the first addressed respondents' characteristics (maternal age, education, occupation, family income, child's age, gender, and type of disability), while

The second evaluated sadness levels using a validated scale. Prior to data collection, participants received comprehensive explanations regarding the study objectives and procedures. Written informed consent was obtained before the distribution of questionnaires to eligible respondents. Participants completed the questionnaires independently, with clarification provided when necessary to ensure accurate responses. To ensure data quality, all returned questionnaires were checked for completeness and consistency. Data collection was conducted within a specified period, and all responses were systematically coded and prepared for subsequent analysis.

Data Analysis

Data were analyzed using appropriate statistical software to ensure accuracy and rigor. Descriptive (univariate) analysis was conducted to summarize respondents' characteristics and the distribution of sadness levels. Categorical variables were presented as frequencies and percentages, while sadness scores were summarized using mean values and subsequently classified into predefined categories based on the total questionnaire scores. Bivariate analysis was performed to examine the associations between independent variables and the level of sadness using the chi-square test, with statistical significance set at $p < 0.05$. Additionally, one-way analysis of variance (ANOVA) was applied to compare mean sadness scores across different types of disabilities. All statistical analyses were conducted at a 95%

confidence level, and a p-value of less than 0.05 was considered indicative of statistical significance

Ethical Considerations

Ethical approval for this study was obtained from the Ethics Committee of the Institute of Technology and Health Muhammadiyah West Kalimantan (No. 117/II.I.AU/KET.ETIK/II/2025). The study was conducted in accordance with the principles of the Declaration of Helsinki. Prior to data collection, all participants were provided with comprehensive verbal and written explanations regarding the study's objectives, procedures, potential risks, and expected benefits. Participation was entirely voluntary, and written informed consent was obtained from all participants before enrollment. To ensure confidentiality and privacy, all data were anonymized using a coding system without including participants' names or other identifiable information. Access to the code list was restricted to the principal investigator only. All data were securely stored and used exclusively for research purposes. Participants were also informed of their right to withdraw from the study at any time without any academic, professional, or personal consequences. These procedures were implemented to uphold ethical standards and to safeguard the rights, confidentiality, and well-being of all participants throughout the research process.

Results

The characteristics of respondents in this study include mother's age, educational background, income and mother's employment status. Meanwhile, for children, the characteristics include the child's age, the child's gender, and the type of disability in the child. Complete characteristics of respondents can be seen in **table 1** below as follow:

Table 1. Distribution of characteristics of mothers and children with special needs (n=62)

Respondent's Characteristics	Mean (SD)	n	Percentage (%)
Mother's Age (range: 25-38)	31.27 (4.033)		
Mother's Occupation			
Housewife		38	61.3
Civil Servant		17	27.4
Private sector		7	11.3
Mother's Education Background			11.3
Junior High School		7	17.7
Senior High School		11	71.0
Bachelor Degree		44	
Family Income			
≥ 2.750. 644,55 IDR		38	61.3
< 2.750. 644,55 IDR		24	38.7
Child's age (range: 2-10)	5.76 (1.956)		
Child's gender			
Male		46	74.2
Female		16	25.8
Types of child's disabilities			
Autism Spectrum			48.4
Disorder		30	19.4
Down Syndrome		12	32.2
Intellectual Disability		20	

Table 1 presents the characteristics of mothers and their children with special needs. The mothers were within the productive age range of 25–38 years (M = 31.27). The majority were housewives (61.3%) and held a bachelor's degree (71%). Most families had an income more than IDR 2,750,644.55 (approximately US$173). The children were aged between 2 and 10 years (M = 5.76), predominantly male (74.2%), with Autism Spectrum Disorder being the most common condition (48.4%).

Table 2. The level of sadness of mothers who have children with special needs (n=62)

Types of child's disabilities	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
Intellectual Disabilities	20	44.25	0.639	0.143	43.95	44.55	43	45
Autism Spectrum Disorder	30	49.30	2.003	0.366	48.55	50.05	45	54
Down Syndrome	12	48.67	0.651	0.188	48.25	49.08	48	50
Total	62	47.55	2.726	0.346	46.86	48.24	43	54

Table 2 shows that of the three such types of disabilities as Autism Spectrum Disorder, Down's Syndrome and Intellectual Disability, mothers who have children with Down's Syndrome show severe sadness with a score range of 48-50 (severe level) and an average score of 48.67. Meanwhile, mothers who have children with autism spectrum disorder experience moderate to severe levels of sadness with a score range of 45-54 (i.e., moderate to severe level) and an average score of 49.30. Only mothers who have children with intellectual disabilities felt a moderate level of sadness, in this study, with an average score of 44.25 and a range of 43-45 (moderate level).

Table 3. Disparities in levels of sadness

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	324.638	2	162.319	74.402	0.001
Within Groups	128.717	59	2.182		
Total	453.355	61			

Based on the results of statistical tests using the ANOVA test, it is known that there was a difference in the level of sadness between mothers who had children with special needs with p value 0.001 (**Table 3**).

Table 4 Disparities in levels of sadness based on characteristic mothers

Characteristic Participants	Level of sadness		Total n (%)
	Moderate N (%)	High N (%)	
Child's gender			
Male	15 (24.2)	31 (50.0)	46 (74.2)
Female	6 (9.68)	10 (16.1)	16 (25.8)
Mother's Education Background			
Senior High School	9 (14.5)	2 (3.2)	11 (17.7)
Junior High School	4 (6.5)	3 (4.8)	7 (11.3)
Bachelor Degree	8 (12.9)	36(58.1)	44 (71.0)
Mother's Occupation			
Housewife	2 (3.2)	36 (58.1)	38 (61.3)
Civil Servant	13 (21.0)	4 (6.5)	17 (27.5)
Private sector	6 (9.7)high	1 (1.6)	7 (11.3)
Family income			
≥ 2.750. 644,55 IDR	2 (3.2)	36 (58,1)	38 (61,3)
< 2.750. 644,55 IDR	19 (30.6)	5 (8.1)	24 (38.7)

Characteristic Participants	Level of sadness		Total n (%)
	Moderate N (%)	High N (%)	
Type of child's disabilities			
Autism Spectrum Disorder	1 (1.6)	29 (46.8)	30 (48.4)
Down Syndrome	0 (0.0)	12 (9.4)	12 (9.4)
Intellectual Disability	20 (32.3)	0 (0.0)	20 (32.3)

If we look at the mother's educational background, mothers who have completed junior high school have a 17.9 times higher chance of experiencing levels of sadness due to having a child with special needs. Meanwhile, mothers who have a bachelor's degree have an odd ratio of 3.08 times higher levels of sadness due to having a child with special needs. In addition, the mother's employment status has a significant impact on how a mother responds to having a child with special needs. In particular, mothers who worked as civil servants experienced a 98% reduction in levels of sadness. Meanwhile, mothers who work in the private sector experienced a 99% reduction in their level of sadness (**Table 4).**

Table 5 Results Of A Bivariate Analysis To Maternal Characteristics And Levels Of sadness

Variables	Categories	Level Of Sadness						P Value
		Low		Moderate		High		
		N	%	N	%	N	%	
Mother's Education	Junior High School	0	0	4	57.1	3	42.9	<0.001
	Senior High School	0	0	9	81.8	2	18.2	
	Bachelor	0	0	8	18.2	36	81.8	
Mother's Occupation	Housewife	0	0	2	5.3	36	94.7	<0.001
	Civil Servant	0	0	13	76.5	4	23.5	
	Private sector	0	0	6	85.7	1	14.3	
Family income	≥2.750. 644,55 IDR	0	0	2	5.3	36	94.7	<0.001
	< 2.750. 644,55 IDR	0	0	19	79.2	5	20.8	
Mother's Age	17-25 years old	0	0	0	0	2	100	0.551
	26-35 years old	0	0	17	36.2	30	63.8	
	36-45 years old	0	0	4	30.8	9	69.2	

Based on T**able 5**, the bivariate analysis indicated that maternal education, occupation, and family income were significantly associated with the level of sadness ($p < 0.05$). Higher education, being a housewife, and higher income were associated with greater levels of sadness. In contrast, maternal age was not significantly associated with the level of sadness ($p > 0.05$). These findings suggest that socioeconomic factors play a key role in influencing the level of sadness

Table 6. Results Of a Bivariate Analysis to Children Characteristics and Levels Of sadness

Variables	Categories	Level Of Sadness						P Value
		Low		Moderate		High		
		N	%	N	%	N	%	
Child's Age	1-5 years old	0	0	8	26.7	22	73.3	0.246
	6-10 years old	0	0	13	40.6	19	59.4	
Child's Gender	Male	0	0	15	32.6	31	67.4	0.722
	female	0	0	6	27.5	10	62.5	

Based on **Table 6,** the bivariate analysis demonstrated that there was no statistically significant association between child's age and the level of sadness (p = 0.246). Similarly, child's gender was not significantly associated with the level of sadness (p = 0.722). Although a higher proportion of children across both age groups (1–5 years and 6–10 years) and sexes exhibited high levels of sadness, these differences were not statistically significant. These findings suggest that child characteristics, including age and gender, were not significant predictors of the level of sadness in this study

Table 7. Results Of A Bivariate Analysis To Type of Disabilities And Levels Of sadness

Variables	Categories	Level Of Sadness						P Value
		Low		Moderate		High		
		N	%	N	%	N	%	
Type of Disabilities	Intellectual Disability	0	0	20	100	0	0	<0.001
	ASD	0	0	1	3.3	29	96.7	
	Down Syndrome	0	0	0	0	12	100	

Based on **Table 7**, the bivariate analysis revealed a statistically significant association between the type of disability and the level of sadness ($p < 0.05$). Children with intellectual disability were predominantly categorized as having moderate levels of sadness, whereas those with autism spectrum disorder and Down syndrome were largely classified as experiencing high levels of sadness. These findings indicate that the type of disability is a significant determinant of the level of sadness.

Discussion

The present study provides a descriptive overview of sadness levels among mothers of children with special needs. The findings indicate that mothers across all groups reported moderate to high levels of sadness, with slightly higher mean scores observed among mothers of children with Autism Spectrum Disorder and Down syndrome compared to those with intellectual disabilities. Because the design of this study is cross-sectional and descriptive, these differences should not be interpreted as causal relationships between the type of child's condition and maternal emotional responses. Rather, the results highlight variations in reported emotional experiences across groups within the sample. Previous studies have similarly noted that caregivers frequently experience elevated levels of stress, anxiety, depression, and burnout, often accompanied by marital strain, role imbalance, and financial challenges. These outcomes are associated with risk factors such as low socioeconomic status, limited care coordination, and insufficient culturally responsive support, while protective factors include strong social support, access to multidisciplinary services, and active engagement with primary care. Although family-centered care models have been widely recommended, gaps remain in the implementation of routine screening, effective referral systems, and the integration of psychosocial support within primary healthcare settings (Ahmad et al., 2026). However, much of the existing literature focuses on broader constructs such as parental stress, depression, or psychological burden, while the specific

emotional experience of sadness has received comparatively limited descriptive attention (Rusu et al., 2025).

From a descriptive perspective, the relatively high sadness scores observed among mothers of children with Autism Spectrum Disorder in this study may reflect the complex caregiving context often associated with the condition, including behavioral challenges, communication difficulties, and the need for long-term therapeutic interventions. Similar patterns have been reported in recent research indicating that maternal emotional difficulties are associated with increased behavioral problems in children with Autism Spectrum Disorder (ASD). Specifically, elevated maternal anxiety combined with a hostile or coercive parenting style tends to be linked to more severe child behavioral outcomes (Lin et al., 2023). In addition, previous studies emphasize that caregivers of children with developmental conditions may benefit from structured support strategies, including psychoeducation, participation in peer support groups, and improved access to integrated health and social services, which collectively contribute to enhanced caregiver well-being and more effective caregiving practices (Chakraborti et al., 2021;Abeasi et al., 2025).

Caring for children with special needs is obviously a burden for parents, especially for mothers. Some mothers who have children with special needs feel deep sadness in caring for and raising children with special needs. According to the researcher, the sadness felt by the mother can be caused by the mother being ashamed of her child's condition, then the burden of life increases, the mother cannot accept her child's condition and the mother is afraid of her child's future. This finding affirms the study results revealed by previous studies which suggest that several experiences of mothers who have children with special needs will have an impact on family burdens, emotional changes in the family, and the mother's psychological response (Maulinda et al., 2021). Furthermore, the results of this study show that mothers who have children with autism, intellectual disabilities and Down syndrome feel sadness ranging from moderate to severe sadness. However, mothers who have children with autism spectrum disorder feel deeper sadness than other mothers. Therefore, the results of this study are in line with the story of a mother in Halloran and Doddy's research who had a child with autism spectrum disorder (ASD). Based on her years of experience caring for children with ASD, this mother revealed that she had experienced sad times over the years as a parent who had a child with ASD (Halloran & Doody, 2013).

Every child with special needs is unique. Especially, children with ASD whose characteristics and symptoms vary depending on the severity. According to *American Psychological Association* (APA), lifelong neurodevelopmental disorder known as autism spectrum disorder (ASD) is defined by inability to fully carry out social and interpersonal interaction which is signed by the existence of constrained interest and monotonous manners or repetitive conducts (Posar & Visconti, 2019).

Based on the Diagnostic and Statistical Manual of Mental Disorders, 5th Edition (DSM-5), there are 3 levels of ASD, each level shows different symptoms (Wiggins et al., 2019). The higher the level of ASD in a child, the greater the child's dependence. Children will need support from other people, in this case family members. Therefore, children with ASD need extra supervision from family members and mother's help in meeting their daily needs. The assistance provided can be total or partial depending on the condition and symptoms experienced by the child. Apart

from that, there are even those who have not yet demonstrated independence in meeting their daily needs and activities until they reach adolescence, so some ASD children require lifelong assistance (Jiu & Rungreangkulkij, 2019b). Therefore, no mother would not be sad if she witnesses that her child is not independent and need help all the time. Departing from this condition, most mothers who have children with ASD feel deep sadness because they feel worried about the future condition of their children, and the burden that mothers have to bear in caring for children with ASD (Jiu & Rungreangkulkij, 2019a; Winarianti et al., 2022). Previous research results also show that some mothers who have children with ASD feel helpless and frustrated in caring for their children. This feeling of pressure arises from the fact that most have no knowledge about what they can do about their child's future, their child's education and life with ASD in the future (Papadopoulos, 2021).

As found in this study, this is different from mothers who have children with Down syndrome who felt heavy sadness. Children with Down syndrome in this study experienced several problems such as physical disorders and cognitive abilities as well as other health problems so that mothers felt concerned about their children's condition and development. Being part of a family that has a child with special needs such as Down Syndrome (DS) has its own challenges because you have to face days unlike other families in general. The results of a review conducted by Nurmalita et al., (2019) claim that all parents of DS children cope with different strategies in caring for children with DS. Besides finding it difficult to accept their child's condition, mothers with Down syndrome children also face challenges in caring for their children (Suza et al., 2020). Down syndrome is a genetic disorder that is inherited from birth due to an extra chromosome on chromosome 21 (Antonarakis et al., 2021).

Intellectual Disability, also known as Mental Retardation, is a neurodevelopmental disorder characterized by limitations in intellectual or cognitive function and adaptive function. This disorder covers three domains which include conceptual, social and practical skills (Babiker et al., 2025). The children with intellectual disabilities mostly live with their families at home and they receive support and care from family members throughout their lives. This is an unavoidable parenting responsibility (Mundakir et al., 2024;Alnahdi & Schwab, 2024). The degree of intellectual disability varies from child to child. Intellectual limitations can affect children's learning development, making them learn more slowly compared to other normal children of their age. Therefore, it takes a long process to educate children with mental impairment compared to normal children. These challenges can occur in activities such as teaching them to dress, training them to eat without help, helping them understand lessons at school and understanding instructions and doing assignments. However, children with mental disorders can still take part in various activities together with normal children their age. Many enjoy playing music, dancing, and doing creative arts. Although, generally, someone with intellectual disabilities has an IQ below 70 and lacks adaptive behavior or daily living skills such as participating in group activities and lessons at school (Shree & Shukla, P, 2016)

This research is in line with the results of research by Manyara and Mwarari (2020) which explains that the majority of mothers, 57 (60.6%) experienced moderate to heavy care burden. While a small number of mothers (4.3%) experienced no or little care burden. About 21 mothers (22.4%) experienced serious burdens and 12 people

(12.7%) experienced light to moderate burdens (Manyara & Mwarari, 2020). According to some experts, children with intellectual disabilities need parental patience in caring for and nurturing them so that they are more independent in the future. Children with intellectual disabilities need to be accompanied and taught to carry out various activities so that the child is expected to be independent in the future. Meanwhile Budak and colleagues believe that not all first caregivers, in this case mothers, think that having a child with an intellectual disability is a bad thing. Some mothers may have no problems taking care of their children. However, most mothers experience major changes in family and social ties and worry about the future (Budak et al., 2018)

One of the reasons for the severity of the sadness of mothers who have children with special needs is the large costs that parents have to pay for the child's medication and care. As is known in this research, 61.3% of families who have children with special needs have an income of less than 2,750. 644.55 IDR (two million seven hundred and fifty thousand six hundred and forty-four rupiah and fifty-five cents). One of the impacts of raising children with special needs is financial problems which become a burden for families in raising children with special needs or disabilities (Manyara & Mwarari, 2020;Maulinda et al., 2021; Papadopoulos, 2021). Mothers will definitely feel sad, on the one hand, caring for the child needs money, for examples for both treatment and education, but on the other hand. Accordingly, the family feels deprived and cannot afford the costs so that they cannot provide the child with optimal treatment. In this study in fact there were around 29% of mothers who had a high school education or less. One of the factors that influences mothers' self-acceptance of having children with special needs is education, in addition to social support, family and religious parenting (Nawantara & Atrup, 2022). According to the researcher, with support from partners and family members, the community and increasing worship and spirituality, mothers will become stronger and will not be alone in caring for children with special needs at home and will not make children with special needs a burden on the family and parents.

Mothers who care for children with especial needs experience unstable emotional changes, excessive anxiety and attention. This impact occurs because mothers who have children with special needs experience limited costs for treatment (therapy) and education. It is especially if their husbands have an unstable income. Therefore, family financial support influences the process of caring for and raising children, especially in reducing the level of stressors in mothers. One of the reasons for the need for financial support is unstable income (Maulinda et al., 2021).

Finally, this study contributes to the literature by focusing specifically on sadness as a distinct emotional response rather than broader psychological constructs. By providing a descriptive profile of sadness levels across maternal and child characteristics, the findings offer an initial empirical basis for future research examining how emotional experiences among caregivers evolve over time and how support systems may influence caregiver well-being. Longitudinal studies and larger multi-site samples are needed to further clarify the contextual factors associated with caregiver emotional responses in families of children with special needs.

The limitations of this study as follows. Firstly, only mothers with children who had autism spectrum disorder, Down syndrome, or intellectual disabilities comprised the respondents. Despite the fact that numerous other categories of children have special needs. Secondly, it should be noted

that the sample size for mothers with children who have special needs varies. In addition, it is important to note that the generalizability of the findings to mothers of children with special needs may be limited, as there are numerous additional variables that may impact an individual's degree of sadness and warrant further investigation. Despite these limitations, the study was able to identify the disparities mother characteristic and level of sadness among them who had special need children. This knowledge is beneficial, as the results suggest that mothers who have children with special needs can accept the child's presence as a gift from God and care for him just like other normal children. Family resilience is essential to maintain optimal family functions in order to support the development of children (Jiu & Rungreangkulkij, 2019c).

Implications and limitations

The findings of this study offer valuable evidence on the influence of socioeconomic factors on the level of sadness among mothers of children with special needs. The observed significant associations between maternal education, occupation, and family income and sadness levels emphasize the necessity of developing targeted psychosocial interventions that account for these contextual determinants. Health professionals, particularly nurses and mental health practitioners, are encouraged to implement supportive strategies to enhance emotional well-being, with a focus on high-risk groups identified in this study. Moreover, these findings highlight the need to integrate mental health services into routine care for families of children with special needs. From a policy perspective, the results may inform the development of community-based programs and social support systems that address both psychological needs and underlying socioeconomic inequalities affecting maternal mental health.

This study has several limitations that warrant consideration. The cross-sectional design precludes causal inference between the independent variables and the level of sadness. In addition, the reliance on self-reported questionnaires may introduce response bias, including social desirability and recall bias. Furthermore, the study was conducted within a specific population and setting, which may limit the generalizability of the findings. The lack of multivariate analysis also restricts the ability to adjust for potential confounding factors that could influence the observed associations. Future research is therefore recommended to adopt longitudinal designs and more robust statistical approaches to better elucidate the determinants of sadness in this population.

Relevance to Practice

The findings of this study have significant implications for nursing practice, particularly within the framework of family-centered care for children with special needs. The identified influence of socioeconomic factors on maternal sadness underscores the importance of adopting a holistic nursing approach that addresses not only the child's clinical condition but also the psychological and social well-being of mothers as primary caregivers.

Nurses play a pivotal role in the early identification of emotional distress by integrating routine psychosocial assessments into clinical practice. The application of standardized screening instruments can support the timely recognition of heightened sadness levels and facilitate appropriate referrals to mental health services. Moreover, nurses are strategically positioned to provide emotional support, health education, and coping strategies that are responsive to the socioeconomic context of each family.

In addition, these findings highlight the need for nurse-led interventions, including counseling services, peer support groups, and community-based programs, aimed at strengthening maternal resilience and emotional well-being. Interprofessional collaboration with psychologists, social workers, and other healthcare providers is essential to ensure comprehensive and coordinated care.

At a broader level, nurses can contribute to policy advocacy by promoting the integration of mental health services into pediatric and community healthcare settings, particularly for families of children with special needs. Addressing both psychological and socioeconomic determinants through nursing practice may ultimately enhance family well-being and improve the overall quality of care

Conclusion

This study demonstrates that socioeconomic factors, particularly maternal education, occupation, and family income, are significantly associated with the level of sadness among mothers of children with special needs, whereas maternal age and child-related characteristics are not significant determinants. These findings indicate that emotional well-being in this population is influenced more by contextual and socioeconomic conditions than by demographic factors alone. The key implication of this study is the necessity of integrating psychosocial and socioeconomic considerations into healthcare services for families of children with special needs, as targeted and context-sensitive interventions are essential to effectively support maternal mental health and enhance overall family well-being.

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CrediT Authorship Contributions Statement

Cau Kim Jiu: Conceptualization, Methodology, Investigation, Supervision, Writing – Original Draft

Sri Ariyanti: Validation, Formal Analysis, Data Curation, Writing – Review & Editing

Tri Wahyuni: Investigation, Resources, Project Administration, Data Curation

Usman: Software, Formal Analysis, Visualization, Writing – Review & Editing

Solikhah: Conceptualization, Supervision, Funding Acquisition, Writing – Review & Editing

Conflicts of Interest

There is no conflict of interest.

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Supplementary Materials

Supplementary File S1: Research Instrument contains the full questionnaire used for data collection.

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