Self-acceptance and parenting stress in parents of children with down syndrome

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Abstract. Parents of children with Down syndrome face complex caregiving challenges that often lead to significant psychological distress. This study aimed to examine the relationship between self-acceptance and parenting stress among parents of children with Down syndrome. A quantitative correlational approach was employed, involving 106 parents selected through purposive sampling. Data were collected using self-acceptance and parenting stress scales, administered both online through social media platforms and offline through direct visits to parents' homes. Pearson Product-Moment correlation analysis revealed a significant negative relationship between self-acceptance and parenting stress ($p < 0.001$; $r = -0.463$), indicating that higher levels of self-acceptance are associated with lower levels of parenting stress. These findings suggest that positive self-acceptance may serve as a protective factor against parenting stress.

1 Introduction

Women Parenting children with Down syndrome presents complex psychological and emotional challenges that extend beyond the children themselves and deeply affect their parents. Down Syndrome (DS) is a chromosomal disorder caused by the presence of an extra copy of chromosome 21, occurring in approximately 1 in 690-750 births , this trisomy results in intellectual disability and various physical traits, with the risk increasing with parental age [1]. The condition affects multiple tissues during development and adulthood, leading to various health issues such as congenital heart disease and Alzheimer's disease.

Globally, estimates that 3,000–5,000 children are born with Down syndrome each year, with more than eight million individuals currently living with the condition [2]. In Indonesia, the prevalence has shown a steady increase, namely 0.13% of children aged 24–59 months in 2013 to 0.21% in 2018. This situation highlights the importance of addressing not only the medical and developmental needs of children with Down syndrome but also the well-being of their parents.

The psychological impact of raising a child with Down syndrome is often marked by feelings of shock, denial, self-blame, and prolonged emotional strain [3]. Parents frequently experience parenting stress, defined as psychological pressure resulting from

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the demands of caregiving [4]. This stress is manifested through exhaustion, frustration, and difficulties in managing emotional balance. Prolonged parenting stress not only undermines parental well-being but also negatively influences the quality of caregiving and the child's development. Hence, identifying protective factors that may reduce parental stress is essential. One such factor is self-acceptance.

Self-acceptance, as described by [5] refers to an individual's unconditional acceptance of themselves, including strengths and weaknesses, regardless of external evaluation or achievement. Parents with high levels of self-acceptance are more capable of coping with challenges and less likely to experience intense psychological distress. Conversely, low self-acceptance exacerbates parenting stress through heightened feelings of guilt, disappointment, and frustration. Empirical studies have consistently shown that greater self-acceptance is associated with lower stress levels and more adaptive coping strategies among parents of children with developmental disorders [6].

1.1 Research Gap

Although parenting stress has been widely studied in parents of children with disabilities, most studies focus on external factors such as social support, financial strain, or spousal involvement [7]. In contrast, internal psychological resources such as self-acceptance remain underexplored, especially in the Indonesian context. Limited empirical evidence has examined how self-acceptance specifically mitigates parenting stress among parents of children with Down syndrome.

1.2 Researchers' Argument and Contribution

This study argues that addressing the role of self-acceptance in reducing parenting stress is crucial for both theoretical and practical contributions. Theoretically, the study expands existing knowledge by integrating Bernard's [5] framework of self-acceptance with Abidin's [4] parenting stress model, providing a more comprehensive understanding of internal and external factors influencing parental well-being. Practically, the findings are expected to inform psychological interventions and parental support programs by emphasizing the importance of fostering self-acceptance as a resilience factor in parents of children with Down syndrome.

1.3 Research Objectives and Hypothesis

The objective of this study is to examine the relationship between self-acceptance and parenting stress in parents of children with Down syndrome. Specifically, this research seeks to determine whether higher levels of self-acceptance are associated with lower levels of parenting stress.

Hypothesis: There is a negative relationship between self-acceptance and parenting stress among parents of children with Down syndrome.

2 Methods

2.1 Participants

The participants in this study were 106 parents of children with Down syndrome, selected using purposive sampling to ensure relevance and validity. The inclusion

criteria required participants to: (1) be parents of a child diagnosed with Down syndrome, (2) be actively involved in the child's caregiving, and (3) provide informed consent by completing the research instruments. Demographic data were collected to provide an overview of the participants, including gender and age. Of the total sample, 28 participants (26.4%) were male and 78 participants (73.6%) were female. Regarding age distribution, 22 participants (20.8%) were aged 24–33 years, 40 participants (37.7%) were aged 34–43 years, 42 participants (39.6%) were aged 44–54 years, and 2 participants (1.9%) were aged 55 years or older.

2.2 Research Instrument

Two instruments were used in this study. The independent variable, self-acceptance, was measured using a scale developed by Puput [8] based on Bernard's [5] theory of self-acceptance. The final version consisted of 31 items after expert judgment and item revision, employing a four-point Likert scale ranging from 1 (strongly disagree) to 4 (strongly agree). The scale demonstrated high internal consistency with a reliability coefficient of $\alpha = 0.939$.

The dependent variable, parenting stress, was assessed using the Parenting Stress Index (PSI) originally developed by Abidin [4] and adapted into Indonesian by Daulay et al. [9]. Although the Indonesian version of the PSI has been validated with parents of children with autism, this tool measures universal domains of parenting stress, such as parental stress, dysfunctional parent-child interactions, and child characteristics, which are theoretically relevant across populations, including parents of children with Down syndrome. This instrument consisted of 13 items distributed across three domains: (1) parent domain, (2) child domain, and (3) parent–child dysfunctional interaction domain. Responses were recorded on a five-point Likert scale from 1 (strongly disagree) to 5 (strongly agree). The reliability coefficient of this instrument was $\alpha = 0.823$.

2.3 Data Analysis Techniques

Data collection was conducted both online and offline between June 6 and June 22, 2025. Online data were gathered in collaboration with POTADS (Association of Parents of Children with Down Syndrome) through digital flyers and direct messaging via social media platforms [6]. Offline data collection was facilitated through partnerships with the Cahaya Kasih Disability Family Foundation in Malang and home visits to parents of children with Down syndrome.

Data analysis was performed using Jeffrey's Amazing Statistics Program (JASP). Prior to hypothesis testing, data were examined for normality, validity, and reliability. Pearson Product-Moment correlation was then applied to assess the strength and direction of the relationship between self-acceptance and parenting stress. This statistical approach was chosen because it is suitable for analyzing relationships between two continuous variables at the interval or ratio scale.

All research procedures adhered to ethical standards, with participation being voluntary and informed consent obtained from each participant. The methodology was designed to ensure accuracy, replicability, and the generation of reliable findings that contribute to the understanding of psychological well-being in parents of children with Down syndrome.

3 Result

This section presents the results of the statistical analyses, including descriptive statistics, assumption testing, and hypothesis testing. The findings are reported sequentially to provide a comprehensive understanding of the relationship between self-acceptance and parenting stress in parents of children with Down syndrome.

3.1 Descriptive Statistics

Descriptive statistics were calculated to provide an overview of the distribution of self-acceptance and parenting stress scores. Table 1 summarizes the mean, standard deviation, and categorical distribution for both variables. In this study, the categorization of self-acceptance and parenting stress was determined based on the mean value of each variable. Respondents with scores below the mean were grouped into the low category, and those with scores equal to or above the mean were grouped into the high category. Calculations were performed manually in Microsoft Excel using the COUNTIF formula to determine the number of respondents in each category.

The frequency results for both variables may be the same. This is normal, as the categories were divided based on the mean value of each variable. This similarity does not affect the main analysis results because hypothesis testing uses the original scores of each variable.

Table 1. Descriptive Statistics of Research Variables

Variable	Category	Frequency	Percentage	M	SD
Parenting Stress	Low	49	46.%	30.84	7.32
	High	57	53.77%		
Self-Acceptance	Low	49	46.23%	104.77	11.01
	High	57	53.77%		

3.2 Assumption Testing

Prior to hypothesis testing, data were examined for normality using the Shapiro–Wilk test. The results of the normality test using the Shapiro-Wilk test show that the W value is 0.983, and the p-value is 0.145. Since $p > 0.05$, it can be concluded that the data from both variables (self-acceptance and parenting stress) are normally distributed. This indicates that the distribution of scores for both variables is symmetrical, not skewed to the left or right, and that the data are evenly distributed around the mean. Then, from the results of the Expert Judgment Scale of Self-Acceptance, $\alpha = 0.915$ was obtained, indicating a high level of reliability. Therefore, the data meet the normality assumption and can be analyzed using parametric statistical techniques, such as the Pearson product-moment correlation test.

3.3 Hypothesis Testing

To test the hypothesis, Pearson Product-Moment correlation analysis was conducted to examine the relationship between self-acceptance and parenting stress. This study used hypothesis testing with Pearson Product Moment correlation analysis to determine the relationship between self-acceptance and parenting stress in parents of

children with Down syndrome. Based on data analyzed using JASP software, a correlation value of r = -0.463 and a significance value of $p < .001$ were obtained. These results indicate a significant negative relationship between self-acceptance and parenting stress. In other words, the higher the level of self-acceptance among parents, the lower their level of parenting stress. Conversely, lower levels of self-acceptance tend to be associated with higher levels of parenting stress. Thus, the hypothesis is accepted.

4 Discussion

The findings of this study revealed a significant negative relationship between self-acceptance and parenting stress among parents of children with Down syndrome. Specifically, higher levels of self-acceptance were associated with lower levels of stress, suggesting that internal psychological resources play a central role in buffering emotional distress in caregiving. This result confirms the hypothesis and reinforces [5] Bernard's theoretical framework, which posits that individuals with strong self-acceptance are better equipped to regulate negative emotions such as guilt, anxiety, and frustration when reality does not align with parental expectations.

Parents who reported higher levels of self-acceptance were more likely to accept their child's condition realistically, adjust expectations, and utilize social support effectively. This is consistent with previous studies highlighting the protective role of self-acceptance in reducing distress in families of children with developmental disorders [10]. Similarly, [11] demonstrated that self-compassion and self-acceptance significantly reduced psychological distress among parents of children with autism, a context comparable to the challenges faced by parents of children with Down syndrome. Moreover, [12] confirmed that acceptance contributes to improved quality of life and emotional stability in families of children with disabilities.

Compared to earlier studies that emphasized external factors such as social support [7], the present study underscores the importance of intrapersonal resources—specifically self-acceptance—as a primary buffer against stress. Although external resources are still important, the findings of this study show that internal resources, such as parental self-acceptance, can enhance the effectiveness of external support. This adds a new dimension to psychological interventions, shifting the focus from reliance on external assistance toward strengthening parents' internal resilience.

Nonetheless, the correlation coefficient (r = –0.463) indicates a moderate association, suggesting that self-acceptance explains only part of the variance in parenting stress. Other psychological and structural factors also influence stress levels. For example, previous studies identified self-efficacy, education level, spousal support [7], socioeconomic conditions, and gender-based caregiving roles; [13] as significant predictors of parenting stress. These findings align with the broader understanding that parenting stress is a multifactorial phenomenon shaped by psychological, social, and cultural dynamics.

The sample composition in this study further highlights gender dynamics in caregiving. Most participants were mothers, reflecting traditional caregiving patterns in Indonesian culture. Prior research has shown that mothers often face higher stress levels due to dual roles and social expectations, yet those with higher self-acceptance manage stress more effectively [14]. These insights suggest that interventions should particularly target mothers of children with Down syndrome, especially within patriarchal cultural contexts where caregiving roles are disproportionately placed on

women.

One strength of this study lies in its specificity, focusing exclusively on parents of children with Down syndrome. Unlike studies that combine various disability groups, this approach allows for a more accurate understanding of the unique psychological dynamics within this population. The use of validated instruments with strong reliability coefficients (Bernard's Self-Acceptance Scale and Abidin's Parenting Stress Index) further enhances the internal validity of the findings.

However, several limitations must be acknowledged. First, the cross-sectional design prevents causal inference, making it unclear whether self-acceptance reduces stress or stress impedes self-acceptance. Future longitudinal studies are needed to capture these dynamics over time. Second, the purposive sampling and reliance on online survey distribution may have introduced participation bias, limiting the representativeness of the findings. Third, potentially important moderating variables such as child's age, caregiving duration, or family structure were not analyzed, even though prior studies indicate their influence on stress levels. Additionally, this study did not collect data on important characteristics such as parental education level, socioeconomic status, and the severity of Down syndrome in children. Some of these factors may influence parenting stress levels should be considered in future studies.

The implications of this study are both theoretical and practical. Theoretically, it extends the integration of [5] and [4] models by emphasizing the role of intrapersonal resilience factors in caregiving contexts. Practically, the results support the development of strength-based interventions such as Acceptance and Commitment Therapy (ACT) or self-compassion training, both of which have been shown to enhance parental well-being in disability contexts [15]. Moreover, policymakers and social service providers should design programs that not only address caregiving skills but also foster parents' psychological resources.

In conclusion, this study contributes to the literature by demonstrating that self-acceptance is a significant predictor of lower parenting stress among parents of children with Down syndrome. Nevertheless, it should be viewed as part of a broader system of interacting factors, including social support, economic stability, and cultural norms. Future research should adopt multivariate and longitudinal approaches to provide a more comprehensive understanding of the psychological dynamics of parenting children with special needs.

5 Conclusion

The present study concludes that self-acceptance has a significant negative relationship with parenting stress among parents of children with Down syndrome. Higher levels of self-acceptance were consistently associated with lower levels of stress, indicating that self-acceptance functions as a crucial internal psychological resource for parents facing the challenges of raising children with special needs. This finding aligns with theoretical perspectives that emphasize the role of intrapersonal strengths in emotional regulation and adaptive functioning. Beyond confirming previous evidence, this study highlights the unique contribution of self-acceptance as a protective factor in the Indonesian context, where cultural and social expectations often intensify parental stress. The novelty of this study lies in its focus on self-acceptance as a primary predictor, thereby contributing to the advancement of psychology by expanding the understanding of how internal mechanisms influence parental well-being and caregiving quality.

6 Implication

The findings of this study carry important implications for both practice and future research. Psychologically, they suggest the need for intervention programs that strengthen self-acceptance, such as acceptance-based counseling and positive psychology training, tailored to the cultural and social contexts of parents of children with Down syndrome. Practically, policymakers and social service providers should design inclusive support systems that not only address caregiving skills but also enhance parents' psychological resilience. For future research, longitudinal and multivariate approaches are recommended to explore causal relationships and to examine additional moderating variables such as socioeconomic conditions, educational background, and family structure. These directions will help create more comprehensive strategies to promote parental well-being and reduce caregiving stress in families raising children with special needs.

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References

1. M. Lechpammer, Down Syndrome - Trisomy 21, in Perinatal Neuropathology, edited by M. Del Bigio, M. Lechpammer, and R. Folkerth (Cambridge University Press, Cambridge, 2021), pp. 260–264 https://doi.org/10.1017/9781316671863.043

2. U. Nations, World Down Syndrome Day, https://www.un.org/en/observances/down-syndrome-day

3. P. M. Teguh and E. Prasetyo, Dinamika Gratitude Pada Ibu Yang Memiliki Anak Down Syndrome, Exp. J. Psikol. Indones. **9**, 1 (2021) https://doi.org/10.33508/exp.v9i1.2913

4. R. Abidin, Parenting stress index 3rd edition: Professional manual, Psychol. Assess. Resour. Inc Odessa TX (1995)

5. M. E. Bernard, A. Vernon, M. Terjesen, and R. Kurasaki, Self-Acceptance in the Education and Counseling of Young People, in The Strength of Self-Acceptance: Theory, Practice and Research, edited by M. E. Bernard (Springer, New York, NY, 2013), pp. 155–192 https://doi.org/10.1007/978-1-4614-6806-6_10

6. P. J. Saputri and Z. Zirmansyah, Pengaruh Self-Acceptance Terhadap Coping Strategy Orang Tua Dengan Anak Down Syndrome Di Yayasan Persatuan Orang Tua Down Syndrome (POTADS), Obs. J. Publ. Ilmu Psikol. **2**, (2024) https://doi.org/10.61132/observasi.v2i1.214

7. W. Harmawan, W. Kusumastuti, and W. Hapsari, Penerimaan Diri pada Ibu dengan Anak Down Syndrome, J. Psychosociopreneur **3**, 131 (2024) https://doi.org/10.37729/jpsp.v3i2.5691

8. N. Hidayati, Dukungan sosial bagi keluarga anak berkebutuhan khusus, Insan **13**, 12 (2011)

9. N. Daulay, N. Ramdhani, and N. R. Hadjam, Validity and Reliability of Parenting Stress Construct among Mothers of Children with Autistic Spectrum Disorder, J. Psikol. **47**, 1 (2020) https://doi.org/10.22146/jpsi.43744

10. O. F. Puput and T. Raharjo, Penerimaan Diri Orang Tua dengan Anak Disleksia: Konsep Diri dan Dukungan Keluarga, **6**, (2024) https://doi.org/10.31004/edukatif.v6i4.6998

11. K. D. Neff, The Development and Validation of a Scale to Measure Self-Compassion, Self Identity 2, 223 (2003) https://doi.org/10.1080/15298860309027

12. R. P. Hastings, H. Kovshoff, T. Brown, N. J. Ward, F. D. Espinosa, and B. Remington, Coping strategies in mothers and fathers of preschool and school-age children with autism, Autism Int. J. Res. Pract. **9**, 377 (2005) https://doi.org/10.1177/1362361305056078

13. I. Yosep, A. D. Kirana, Z. I. Sismayadi, A. Mardhiyah, and R. Hikmat, The Psychological Well-Being with Gender among Parents Who Have Autism Spectrum Disorder Children, JENDELA Nurs. J. **8**, 45 (2024)

14. E. L. Mailey and E. McAuley, Physical activity intervention effects on perceived stress in working mothers: the role of self-efficacy, Women Health **54**, 552 (2014) https://doi.org/10.1080/03630242.2014.899542

15. T. Holmberg Bergman, E. Renhorn, B. Berg, P. Lappalainen, A. Ghaderi, and T. Hirvikoski, Acceptance and Commitment Therapy Group intervention for parents of children with disabilities (navigator ACT): An open feasibility trial, J. Autism Dev. Disord. **53**, 1834 (2023)