



IMPACT OF STRESS LEVELS ON ANXIETY AND DEPRESSION AMONG PARENTS OF CHILDREN WITH DISABILITIES

UTICAJ NIVOA STRESA NA ANKSIOZNOST I DEPRESIVNOST KOD RODITELJA DJECE S INVALIDITETOM

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ABSTRACT

The aim of this study was to examine the impact of perceived stress levels on anxiety and depression among parents of children with disabilities. The study included a sample of 104 parents of children with different types of disabilities, of whom 85.6% were mothers and 14.4% were fathers. The Perceived Stress Scale (PSS-10) was used to assess the level of perceived stress, the Generalized Anxiety Disorder Scale (GAD-7) was used to assess anxiety, and the Patient Health Questionnaire (PHQ-9) was used to assess depression. Data were analyzed using descriptive statistics and linear regression analysis. The results indicated the presence of a moderate level of anxiety ($M = 11.17$; $SD = 4.53$), a moderately severe level of depression ($M = 15.92$; $SD = 6.60$), and a high level of perceived stress ($M = 28.73$; $SD = 5.11$) among parents of children with disabilities. Linear regression analysis showed that the level of perceived stress was a statistically significant predictor of anxiety ($R^2 = 0.25$; $p < 0.001$) and depression ($R^2 = 0.27$; $p < 0.001$). The obtained findings indicate that higher levels of perceived stress contribute to higher levels of anxiety and depression among parents of children with disabilities. The study results highlight the need for the development of systematic psychological and social support for parents of children with disabilities in order to preserve their mental health.

Keywords: perceived stress, anxiety, depression, parents of children with disabilities, mental health, psychological burden

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SAŽETAK

Cilj ovog istraživanja bio je ispitati uticaj nivoa percipiranog stresa na anksioznost i depresivnost kod roditelja djece s invaliditetom. Istraživanjem je obuhvaćen uzorak od 104 roditelja djece s različitim vrstama invaliditeta, od čega su 85,6% činile majke, a 14,4% očevi. Za procjenu nivoa percipiranog stresa korištena je Percipirana skala stresa (PSS-10), za procjenu anksioznosti Ljestvica generaliziranog anksioznog poremećaja (GAD-7), dok je za procjenu depresivnosti korišten Upitnik pacijentovog zdravlja (PHQ-9). Podaci su obrađeni primjenom deskriptivne statistike i linearne regresijske analize. Rezultati istraživanja pokazali su prisustvo umjerenog nivoa anksioznosti ($M = 11,17$; $SD = 4,53$), umjereno teškog nivoa depresivnosti ($M = 15,92$; $SD = 6,60$) te izraženog nivoa percipiranog stresa ($M = 28,73$; $SD = 5,11$) kod roditelja djece s invaliditetom. Linearna regresijska analiza pokazala je da nivo percipiranog stresa statistički značajno predviđa anksioznost ($R^2 = 0,25$; $p < 0,001$) i depresivnost ($R^2 = 0,27$; $p < 0,001$). Dobijeni rezultati ukazuju da viši nivo percipiranog stresa doprinosi višem nivou anksioznosti i depresivnosti kod roditelja djece s invaliditetom. Rezultati istraživanja ukazuju na potrebu razvoja sistemske psihološke i socijalne podrške roditeljima djece s invaliditetom s ciljem očuvanja njihovog mentalnog zdravlja.

Ključne riječi: percipirani stres, anksioznost, depresivnost, roditelji djece s invaliditetom, mentalno zdravlje, psihološko opterećenje

INTRODUCTION

Parenthood provides a profound sense of fulfillment; however, it is also an exceptionally complex role that demands continuous adaptation and sustained engagement in fostering a child's developmental potential, which can become a source of significant chronic stress for parents (Nelson et al., 2014; Nomaguchi & Milkie, 2020). In this context, parental stress is defined as a specific distressing state directly associated with the demands of the caregiving role, one that differs qualitatively from stressful experiences encountered in other life domains (Profaca & Arambašić, 2004). When additional developmental challenges arise within the family, this specific stress mechanism becomes even more pronounced. As noted by Parvez, Hasan Mizu, and Alam (2026), a child's disability exerts a profound impact on the family unit, and on parents in particular. Given that caregiving brings with it a unique set of challenges, parents of children with developmental difficulties are prone to exhibiting considerably higher levels of depression, anxiety, and stress.

Mothers frequently bear a disproportionate share of this burden, as the demands of raising a child with developmental difficulties can become an all-consuming, around-the-clock occupation. This relentless pace generates continuous psychological pressure and chronic distress, making it exceedingly difficult for mothers to find relief from the daily, intensive weight of responsibility (Turda, 2023, as cited in Parvez et al., 2026). In addition, numerous studies confirm that prolonged exposure to high levels of stress represents the primary trigger for the development of clinical forms of anxiety and depressive states, rendering mothers in the role of primary caregivers particularly vulnerable (Davis & Carter, 2008).

Beyond the daily demands of direct caregiving, parents also face significant secondary stressors, where financial instability (Scherer et al., 2019), a deficit of adequate community support, and a chronic lack of time for personal needs and rest are the dominant ones. The cumulative effect of these pressures accelerates the transition from acute stress to lasting psychological difficulties, directly undermining the psychological well-being and functioning of the entire family unit. In light of the foregoing, it is evident that accumulated stress exerts a destructive impact on parents' emotional stability. Therefore, the aim of this study was to examine the impact of perceived stress levels on anxiety and depression among parents of children with disabilities.

MATERIALS AND METHODS

Sample of Participants

The study included a total sample of 104 parents of children with different types of disabilities. Of the total number of participants, 15 (14.4%) were fathers and 89 (85.6%) were mothers. With respect to the type of disability, 47 children (45.2%) were on the autism spectrum, 31 children (29.8%) had Down syndrome, and 26 children (25.0%) had cerebral palsy.

Measuring Instruments

The **Perceived Stress Scale** (Cohen, Kamarck, & Mermelstein, 1983) was used to assess the experience of stressful situations over the preceding month. The instrument comprises 10 items rated on a Likert scale ranging from 0 to 4, where values indicate the frequency of occurrence of certain feelings and experiences (0 = never, 1 = almost never, 2 = sometimes, 3 = often, 4 = very often). The total score ranges from 0 to 40, with higher scores indicating higher levels of perceived stress (258).

Anxiety symptoms were assessed using the Generalized Anxiety Disorder Scale (Spitzer, Kroenke, Williams, & Löwe, 2006). This instrument examines the presence of nervousness, worry, irritability, and difficulty relaxing over the preceding two weeks. The scale consists of seven items rated on a scale from 0 to 3 (0 = not at all, 1 = several days, 2 = more than half the days, 3 = nearly every day). The total score serves as an indicator of anxiety severity, with values of 0–4 indicating minimal anxiety, 5–9 mild, 10–14 moderate, and 15–21 severe anxiety. Scores above 10 are considered a clinically significant indicator of an anxiety disorder (262).

The presence and severity of depressive symptoms were assessed using the Patient Health Questionnaire (Kroenke, Spitzer, & Williams, 2001). The instrument addresses symptoms experienced over the preceding two weeks and consists of nine items with responses on a Likert scale from 0 to 3 (0 = not at all, 1 = several days, 2 = more than half the days, 3 = nearly every day). The total score determines the level of depression: 0–4 indicates minimal or absent depression, 5–9 mild, 10–14 moderate, 15–19 moderately severe, and 20–27 severe depression (263).

Data Analysis

The data collected in the study were analyzed using parametric statistics. Descriptive statistical measures were calculated to characterize the sample, including measures of central tendency and dispersion, as well as frequencies and percentage values. Results are presented in tabular form. Linear regression analysis was applied to examine the predictive value of perceived stress for anxiety and depression among parents of children with disabilities. Data were processed using SPSS version 25.0 for Windows.

RESULTS AND DISCUSSION

The descriptive statistics presented in Table 1 indicate the presence of elevated levels of psychological burden among parents of children with disabilities. The mean score on the anxiety scale was $M = 11.17$ ($SD = 4.53$), reflecting a moderate level of anxiety among participants. With respect to depression, the mean value was $M = 15.92$ ($SD = 6.60$), corresponding to a moderately severe level of depressive symptoms. The highest mean score was recorded on the perceived stress scale ($M = 28.73$; $SD = 5.11$), indicating a high level of perceived stress among the parents included in the study. The obtained minimum and maximum values confirm the presence of individual differences among participants in the intensity of experienced stress, anxiety, and depression. Observed together, the results point to an elevated risk for the development of psychological difficulties among parents of children with disabilities.

These findings are consistent with those of earlier studies reporting that parents of children with disabilities frequently exhibit higher levels of stress, anxiety, and depression compared to parents of typically developing children. It is particularly noted that continuous caregiving demands, increased daily functioning requirements, emotional burden, and reduced social support can significantly affect parental mental health. Similar findings are reported by Duku, Janus, Abrey, and Corry (2011) and Emerson (2003), both of whom confirmed the association between parental stress and symptoms of anxiety and depression among parents of children with developmental difficulties.

Table 1. Levels of anxiety, depression, and stress among parents

Variables	M	SD	SE	Min	Max
Anxiety level	11.17	4.53	0.44	0.00	24.00
Depression level	15.92	6.60	0.65	0.00	35.00
Perceived stress level	28.73	5.11	0.50	10.00	40.00

Table 2 presents the results of the linear regression analysis, which indicate that perceived stress level is a statistically significant predictor of both anxiety and depression among parents of children with disabilities. With regard to anxiety, the regression model was statistically significant ($F = 35.67$; $p < 0.001$), with perceived stress level accounting for 25.9% of the variance in anxiety ($R^2 = 0.25$). The standardized regression coefficient ($\beta = 0.50$) indicates a moderately strong positive association between perceived stress and anxiety.

Similarly, the regression model for depression was also statistically significant ($F = 39.28$; $p < 0.001$). Perceived stress accounted for 27.8% of the variance in depression ($R^2 = 0.27$), while the standardized regression coefficient ($\beta = 0.52$) indicates that higher levels of perceived stress contribute to higher levels of depression among participants.

The obtained results confirm that perceived stress is a significant predictor of psychological difficulties among parents of children with disabilities. Increases in stress levels are associated with more pronounced symptoms of anxiety and depression, further underscoring the importance of psychological burden in parents' emotional functioning. These findings may be explained by the fact that parents of children with disabilities assume numerous daily responsibilities related to caregiving, rehabilitation, and the provision of continuous support for their child, which can lead, over time, to emotional exhaustion and a sense of being overwhelmed.

Prolonged exposure to stressful situations can negatively affect parents' psychological stability, particularly in conditions characterized by limited social support, financial strain, and restricted opportunities for rest and personal activities. The results of this study are consistent with the findings of Boyd (2002), who reported that elevated levels of parental stress significantly contribute to the emergence of anxiety and depression symptoms among parents of children with developmental difficulties. Similar findings are reported by Seltzer, Greenberg, Floyd, Pettee, and Hong (2001), who emphasized that long-term caregiving for a child with developmental difficulties constitutes a significant risk factor for compromised parental mental health. Hastings, Kovshoff, Ward, Espinosa, Brown, and Remington (2005) further highlight that chronic stress among parents of children with disabilities may be associated with more pronounced emotional difficulties and a reduced quality of life.

The obtained findings carry significant practical implications, pointing to the need for the development of systematic support for parents of children with disabilities. This includes strengthening access to psychological counseling, professional assistance, support groups, and educational programs aimed at developing effective stress-coping strategies. Timely support for parents could contribute to a reduction in anxiety and depression symptoms and improve the overall quality of life of the entire family.

Although the results demonstrated a significant association between perceived stress and parental mental health, it should be noted that anxiety and depression may also be influenced by other factors not captured in this study, such as socioeconomic status, marital support, the degree of the child's functional difficulties, and the availability of rehabilitation services. Future research should incorporate a broader range of predictor variables in order to provide a more comprehensive explanation of the factors associated with the psychological functioning of parents of children with disabilities.

Table 2. Linear regression analysis

Dependent variable	Predictor	B	SE	β	t	p	R^2	F
Anxiety level	Perceived stress level	0.45	0.07	0.50	5.97	<0.001	0.25	35.67
Depression level	Perceived stress level	0.68	0.10	0.52	6.26	<0.001	0.27	39.28

Legend: B = unstandardized regression coefficient; SE = standard error; β = standardized regression coefficient; R^2 = coefficient of determination.

CONCLUSION

The results of this study indicated that parents of children with disabilities exhibit elevated levels of perceived stress, anxiety, and depression. On average, participants demonstrated a moderate level of anxiety, moderately severe depressive symptoms, and a high level of perceived stress, confirming the presence of significant psychological burden in this population. Furthermore, the results of the linear regression analysis indicate that perceived stress is a statistically significant predictor of both anxiety and depression among parents of children with disabilities. Increases in perceived stress levels are associated with more pronounced anxiety and depression symptoms, with perceived stress accounting for a significant portion of the variance in these psychological difficulties. This confirms the importance of stress as one of the key factors undermining the mental health of parents of children with disabilities. Parents of children with disabilities are exposed daily to numerous emotional, social, and organizational demands associated with caregiving, which over time can negatively affect their psychological functioning and quality of life. It is therefore essential to develop systematic and continuous support directed toward these families, particularly in the areas of psychological counseling, social support, and access to professional rehabilitation services. At the same time, the findings of this study point to the need for early recognition of psychological burden symptoms, as well as the development of preventive programs that would contribute to preserving parental mental health and improving the overall quality of life of the entire family. Future research should include larger samples and additional variables in order to develop a more comprehensive understanding of the factors associated with stress, anxiety, and depression in this population.

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