Logos Universality Mentality Education Novelty: Social Sciences
ISSN: 2284-5747 | e-ISSN: 2458-1054
Covered in: ERIH PLUS, CEEOL, J- GATE, CrossRef, CrossCheck, Google Scholar, Ideas RePeC, Econpapers, Socionet, KVK, WorldCat, ICI Journals Master List - Index Copernicus.

2023, Volume 12, Issue 1, pages: 121–139 | doi: https://doi.org/10.18662/lumenss/12.1/83

Perceived Stress, Mental Well-Being and Coping on Parents of Disabled Children from Mainstream and Special Schools

Irina-Cristina PACHIȚA[1]
Alois GHERGUȚ[2]

[1]Faculty of Psychology and Educational Sciences, "Alexandru Ioan Cuza" University Iaşi, irinapachita@yahoo.com

[2]Faculty of Psychology and Educational Sciences, "Alexandru Ioan Cuza" University, Iaşi, Romania, https://orcid.org/0000-0002-9316-7728, alois@uaic.ro

Abstract: *Raising children with special needs increases the level of family stress and undoubtedly affects the mental well-being of its members. Parents' ability to adapt to this challenge, which causes stress and various unpleasant emotions, will have an effect both on them and on the children.We hypothesized that perceived stress is a significant predictor for parents' mental well-being and that this relationship is moderated by different copying strategies used by them.Moreover, we hypothesized that the type of school in which children are enrolled predicts the level of stress reported by the parents.202 parents of children with disabilities in special schools and mainstream schools, aged between 21 and 66 years old, completed a questionnaire to measure stress levels, mental well-being and the coping strategies used by them. Regression and moderation analyses were conducted. Parental stress was a negative predictor of mental well-being, and problem-focused coping and emotion-focused coping were moderators of the relationship between the two variables, with lower levels of stress and higher levels of mental well-being for the use of these strategies. Avoidant coping did not represent a moderator in this relationship, being correlated with higher levels of parental stress. Children' parents in special education have experienced higher levels of stress than children' parents in mainstream schools. Findings suggest that the way parents of disabled children manage to cope with the stressors influence their mental well-being, offering support in understanding this phenomenon and setting objectives of psycho-emotional intervention for parents.*

Keywords: *Perceived Stress; Mental Well-Being; Coping; Parents; Disabled Children; Special Schools; Mainstream Schools.*

How to cite: Pachiţa, I.-C., Gherguţ, A. (2023). Perceived stress, mental well-being and coping on parents of disabled children from mainstream and special schools. *Logos Universality Mentality Education Novelty: Social Sciences, 12*(1), 121–139.https://doi.org/10.18662/lumenss/12.1/83

©2023 Published by LUMEN Publishing. This is an open access article under the CC BY-NC-ND license http://creativecommons.org/licenses/by-nc-nd/4.0/

Introduction

In the field of special needs services, attention is mainly focused on direct beneficiaries, children, young people and adults with disabilities. However, most of the time, the parents of these beneficiaries also have a series of needs, which are rooted precisely in the changes and challenges of giving birth and raising a child with disabilities. Certainly, no parent is or will ever be prepared for such events so, there is an acute need for the experts of the field to channel their attention and efforts also to these beneficiaries, at first glance, indirect. Raising a child with disabilities contributes to increasing the level of stress in the family and certainly impacts the mental state of the parents and the general well-being of the family. The way in which parents manage to adapt to these new challenges that will generate stress and a set of negative feelings, will impact both them and the children. The present research aims to delineate an empirical framework regarding the relationship between stress, mental well-being and coping in the case of children' parents with disabilities in Romania, both in mainstream schools and in special schools, wanting to analyse where and in what direction a more acute need for psycho-emotional intervention in parents would be located.

Perceived stress among parents of disabled children

Referring to stress, we bring into discussion a series of unusual situations experienced by a person resulting a series of psychophysiological changes which occur. In this regard, we highlight that the phenomenon of stress is one of the mechanisms that determine certain responses at the level of the body in difficult situations (Cooper & Quick, 2017; Folkman, 2013). In perceiving the stress, the individual experiences feelings related to the lack of control and predictability, in the way unpleasant situations are experienced and the volume of changes in one's life, as well as the extent to which one trusts that the difficulties that arise can be managed and overcame (Cohen et al., 1983). Parental stress involves stressors that are specifically related to the context of the child's growth, the parent-child relationship and everything that the parenting process involves (Crnic & Ross, 2017). Parental stress can be briefly defined as a set of processes that lead to aversive psychological and physiological reactions arising from attempts to adapt to the requirements of this role, having a direct impact on the emotional well-being of the parents, the relationships between the parents and the child and the way in which the child develops emotionally and socially (Deater-Deckard & Panneton, 2017; Savari et al., 2021). Parental stress can be a reaction to the child's problems and at the same time aggravate them (Feldman et al., 2002). The results of different studies have shown that, compared to other parents, those of

children with disabilities face a higher level of stress and mental pressure (Savari et al., 2021). Stress levels in parents of children with disabilities have a number of well-defined determinants (R. R. Abidin, 1990; Gallagher & Whiteley, 2013), varying according to the characteristics of the disabled child, mentioning the type and severity of the disability, the degree of autonomy of the child, as well as the age of the child and the visibility of the disability that impacts the social interactions (Baxter et al., 2000; Knussen & Sloper, 1992). Theoretical models of parental stress that are influential in the field of disability suggest that parents will become stressed, not because of the child's characteristics and the challenges they face, but if they perceive that they do not have the resources to adapt and cope with the child's needs arising from disability (Hastings, 2002; Heiman, 2002; Kishore, 2011). Parental stress is not only reflected on parents, and the child with disabilities is not the only one who affects the life and dynamics of his family, but also the parents can positively or negatively impact the development of the disabled child.

Mental well-being of children' parents with disabilities

Mental well-being is defined as having a dynamic nature, referring to the ability of individuals to reach their potential, to experience a sense of productivity, to use their creativity, to build stable and positive interpersonal relationships and to contribute beneficially to their community (Davis et al., 2019). It involves both experienced positive emotions and aspects related to the effective functioning of the individual in the activities of his life (Bell et al., 2019)shaping a set of feelings of achievement, belonging, happiness, yield and lack of aversive factors (Gull, 2015). The mental well-being of parents can be negatively affected in several aspects when raising a child with disabilities, referring to the quality of interpersonal and marital relationships, psycho-emotional and physical health, as well as aspects related to the socio-economic status (Davis et al., 2019), and this will also significantly influence the overall well-being of the disabled child (Resch et al., 2012). Parents of children with disabilities see health and wellbeing as not being a priority for them and tend to be reserved in accessing services to address their own needs (Gilson et al., 2018).

Coping among parents of children with disabilities

Coping consists of a series of behavioural responses of the individual that are designed to reduce psychophysiological affectation caused by stress and to help manage aversive factors in the environment, reducing the manifestation of threat or danger (Folkman, 2013)balancing the ratio between requirements and resources (Krohne, 1986). Coping is a dynamic process, precisely because the perceived stress is also dynamic, and for this reason we

will discuss the use of different adaptation strategies in different phases of the action of a stress factor (Stephenson & DeLongis, 2020) and what underlies these differences between individuals has been the subject of research in the field of coping, mainly delineating determinant genetic factors, which also interact with environmental and situational factors(Kalin et al., 2005). Coping strategies are the descriptors of how people respond to the stressors encountered in everyday life (Skinner & Zimmer-Gembeck, 2007), being regarded as their dispositional variables (Dabrowska & Pisula, 2010). There are various models of coping strategies, thus highlighting the problem-focused coping that involves carrying out actions with the aim of eliminating the stressor, preventing its occurrence or reducing the impact generated by it and the emotion-focused coping aimed at reducing emotional affectation (Carver, 1997; Cooper & Quick, 2017). Another perspective delineates theapproach coping, in which the entire psycho-emotional activity of the individual is focused on the stressor and the way in which it can be managed and the coping based on avoidance, in which the psycho-emotional activity is positioned away from the stressor (Stephenson & DeLongis, 2020)while also mentioning adaptive and maladaptive types of coping (Eroğlu et al., 2014). In the Double ABCX model, a positive response to the stressors resulting from raising a child with disabilities is represented by the process of adapting in parents through the use of effective strategies (Pickard & Ingersoll, 2017) and the use of the personal resources of the family members, of the family system itself and the social resources external to the family (Dabrowska & Pisula, 2010). Coping strategies differ in efficiency depending on the stage of the disorder, those focused on avoidance being considered to be more functional in the early stages or immediately after receiving the diagnosis, being part of the natural responses of people at the time of experiencing this news. However, passing this stage, reaching the time of including the child in a therapy program, studies report that the coping focused on avoidance was associated with a high psychological affectation, while coping focused on addressing the problem was associated with a low level of psychological and emotional affectation (Panjwani & Revenson, 2020).

The present study

This research aims to analyse the relationship between the stress perceived by parents of children with disabilities and their mental well-being, in relation to the coping strategies they use. Also, another objective is to research a possible relationship between the stress levels reported by parents and the type of school in which their children are enrolled. A child with disabilities contributes to increasing the level of stress of the family and certainly also impacts the mental state of the parents and the general well-

being of the family. The way in which parents manage to adapt to these new challenges that will generate stress and a set of negative feelings, will impact both them and the children.

Hypotheses

H1: Perceived parental stress predicts levels of mental well-being, meaning that high levels of stress will predict low levels of mental well-being.

H2: Problem-focused coping moderates the relationship between stress and mental well-being, so we expect the relationship between stress and mental well-being to be weaker as problem-focused coping increases.

H3: Emotion-focused coping moderates the relationship between stress and mental well-being, so we expect the relationship between stress and mental well-being to be weaker as emotion-focused coping increases.

H4: Avoidant coping moderates the relationship between stress and mental well-being, so we expect the relationship between stress and mental well-being to be weaker as avoidant coping increases.

H5: The type of school will predict perceived parental stress levels, in the sense that children' parents in mainstream education will experience a lower level of stress than children' parents in special education.

Method

Participants

The research was carried out on a sample of 202 people, representing parents of children with disabilities in special education and mainstream education in Romania. The average age of the participants is 42 years, the minimum age is 21 years and the maximum age is 66 years. The subjects live in both rural and urban areas, 86 of them living in rural areas and 116 in urban areas. The gender distribution indicates that the sample contains 175 females and 27 males. As for marital status, 151 reported being married and 51 are unmarried. The data collected indicates that 84 children of subjects are enrolled in special education, and 118 in mainstream education, having various disabilities such as autistic spectrum disorders, mental, auditive, visual, neuromotor disability, ADHD, Down syndrome, language impairment and other conditions.

Measures

Three quantitative measurements were used to test the working hypotheses. The three instruments are: The Warwick-Edinburgh Mental Well-being Scale (WEMWBS) (Stewart-Brown & Janmohamed, 2008) Brief-COPE (Carver, 1997) and Parenting Stress Index – Short Form (PSI-SF) (R. Abidin et al., 2006)

The Warwick-Edinburgh Mental Well-being Scale (WEMWBS) measures the mental well-being of the general population (people aged 16 and over), covering both aspects of feelings of mental well-being and functional aspects of mental well-being. The items of this scale are positively formulated and address positive aspects of mental health. The questionnaire consists of a total of 14 items, being scored on a Likert scale from 1 to 5, where 1 means *never* and 5 means *always*. Higher scores indicate higher levels of mental well-being. Cronbach's Alpha indicated a good internal consistency (0.92).

Brief-COPE was built to measure effective and ineffective ways of coping in stressful life situations. The scale can determine the primary coping styles of people on the following three subscales: Problem-focused Coping (8 items), Emotion-focused Coping (12 items), Avoidant Coping (8 items). In addition, the following facets of coping are reported: distraction, denial, substance use, behavioural disengagement, emotional support, ventilation, humour, acceptance, self-blame, religion, active coping, use of instrumental support, positive reframing and planning. A Likert type scale is used from 1 to 4, where 1 means *I did not do this at all*, and 4 means *I did this a lot*. Cronbach's Alpha indicated good internal consistency of both the entire scale (0.82) and for each dimension – problem-focused coping (0.79), emotion-focused coping (0.71) and avoidant coping (0.69).

The Parenting Stress Index – Short Form (PSI-SF) is a well-documented measure of parental stress. PSI-SF has 36 items from the original of 120 items of the PSI questionnaire. The items are identical to those of the original version. The questionnaire gives scores on parental stress on three subscales: Parental Distress (12 items), Dysfunctional Parent-Child Interaction (12 items) and Difficult Child (12 items). A Likert scale from 1 to 5 was used, where 1 means *total disagreement* and 5 means *total agreement.* Cronbach's Alpha indicated good internal consistency (0.94).

Procedure

The questionnaires, translated and adapted in advance, were introduced in the Google Forms tool that helped to facilitate the application to the sample, and the administration in printed format was also used. Participants were confirmed of the confidentiality and anonymity of their responses, being asked to give honest answers. Also, before completing the questionnaires, the subjects were asked to give their consent to participate in this research. For data analysis we used the IBM SPSS statistics package and the PROCESS macro extension (Hayes, 2022), pre-checking the assumptions of linear regression with related moderation. It was not considered necessary for the study to be reviewed and approved by an ethics committee. The study was conducted according to the national ethical guidelines and the APA's Code of Ethics.

Results

Correlation analysis

The Pearson correlation analysis indicated a significant negative correlation between the mental well-being and the perceived stress of the parents ($r = -0.459$, $p < 0.001$), so the higher the parental stress, the lower the mental well-being. A significant positive correlation has been identified between mental well-being and problem-focused coping ($r = 0.529$, $p < 0.001$) and emotion-focused coping ($r = 0.227$, $p < 0.001$) and a significant negative correlation between mental well-being and avoidant coping ($r = -0.265$, $p < 0.001$). Therefore, high levels of use of emotion-focused and problem-focused coping are associated with high levels of mental well-being, and high levels of avoidant coping use are associated with low levels of mental well-being. A significant negative correlation was also found between perceived stress and problem-focused coping ($r = -0.219$, $p < 0.001$), and between perceived stress and avoidant coping, a significant positive correlation was found ($r = 0.459$, $p < 0.001$), so low stress levels are associated with high levels of problem-focused coping use and low levels of avoidant coping use (Table 1)

Table 1. *Descriptive statistics of variables and the Pearson correlation matrix*

			Pearson correlation coefficients				
Variables	**Mean**	**SD**	**1**	**2**	**3**	**4**	**5**
1. Mental well-being	50.88	10.43					
2. Stress	98.19	27.04	-.459**				
3. Problem-focused coping	25.71	4.39	.529**	-.219**			
4. Emotion-focused coping	32.91	5.75	.227**	.061	.602**		
5. Avoidant coping	16.43	4.16	-.265**	.459**	.068	.352**	

** p<0.001, * p<0.05, N = 202

Perceived parental stress and mental well-being

In H1 testing, in order to understand how parental stress can predict the levels of mental well-being of children' parents with disabilities, we used simple linear regression analysis.

The simple linear regression analysis is statistically significant, F (1, 200) = 53,311, p < 0,001. The regression equation obtained is: mental well-being = 68,262 – 0,177 × (perceived parental stress). So, the results show that the predictor perceived parental stress explains 20.7% of the variance of mental well-being ($R^2_{adjusted}$ = 0.207). Perceived parental stress (β = -0.459) is a significant negative predictor of mental well-being (p < 0.001 < 0.05), thus, the higher the level of stress perceived by parents of children with disabilities, the lower the level of their mental well-being (Table 2).

Table 2. *The results of the regression analysis explaining the mental well-being based on the perceived parental stress (N=202)*

	R	R^2	$R^2_{adjusted}$	β	b	SE b
Perceived parental stress	0.459	0.210	0.207	- 0.459	- 0.77*	0.024

Note. Criterion variable: mental well-being; * p < 0.001

Coping strategies as moderators of the relationship parental stress – mental well-being

Problem-focused coping as moderator of parental stress – mental well-being relationship

Table 3. *Results of the moderation model of hypothesis 2*

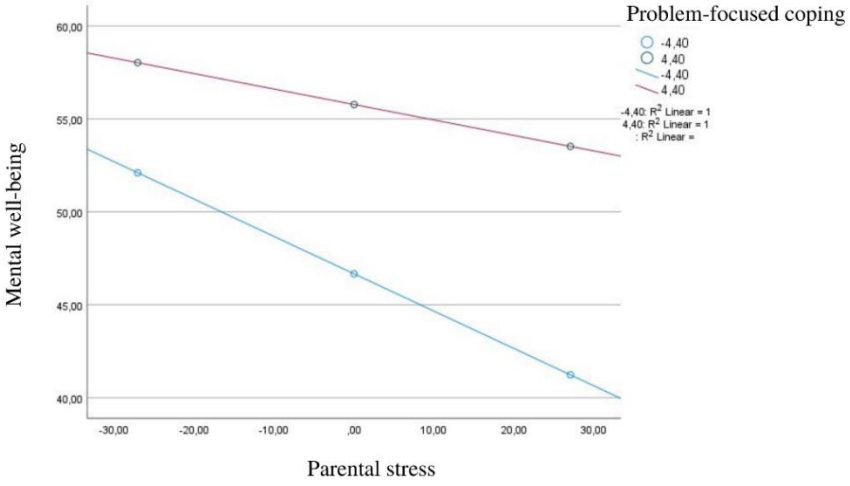
					95% CI	
Model	**B**	**Std. Err.**	**t**	**p**	**Lower**	**Upper**
Perceived parental stress	-0.1422	0.021	-6.667	0.000	-0.184	-0.100
Problem-focused coping	1.0360	0.135	7.876	0.000	0.776	1.295
Stress × Problem-focused coping	0.0134	0.029	2.772	0.006	0.003	0.022

Note. Criterion variable: mental well-being;

The results of the statistical analysis indicate that high levels of perceived parental stress (B = -0.142, SE = 0.021, p < 0.05) are significantly associated with low levels of mental well-being and high levels of use of problem-focused coping (B = 1,036, SE = 0.135, p < 0.05) are significantly associated with an increase in mental well-being. The interaction between parental stress and problem- focused coping is a significant one (B = 0.134, SE = 0.029, CI = [0.003, 0.022], p < 0.05), suggesting that the effect of

parental stress on the mental well-being depends on the level of use of problem-focused coping (Table 3). The whole model explains about 43% of the variance of mental well-being, R2 = 0.426, F (3.198) = 48,993, p < .001. The value of R2changed = 0.0223, which means that the moderating variable, the problem-focused coping, adds 2.23% to the explanation of the mental wellbeing variance. The moderation effect is low, but statistically significant, so the relationship between stress and mental well-being becomes weaker as problem-focused coping increases (Figure 1).

Figure 1.
Regression analysis graph with problem-focused coping moderator



Emotion-focused coping as moderator of the relationship parental stress – mental well-being

Table 4. *Results of the moderation model of hypothesis 3*

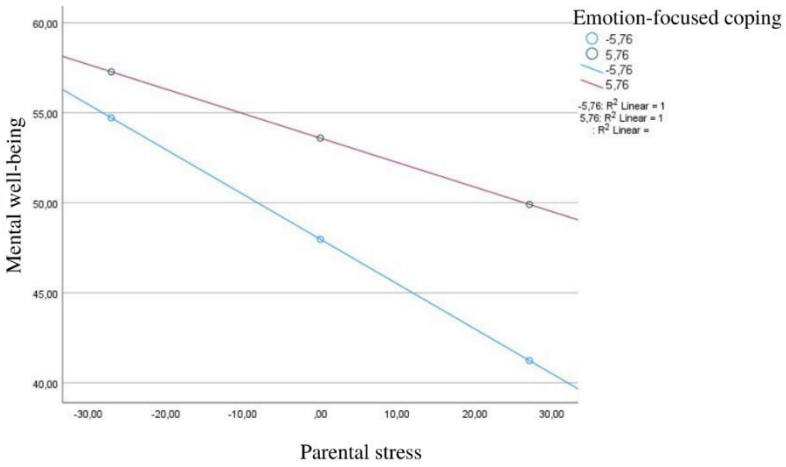
					95% CI	
Model	**B**	**Std. Err.**	**t**	**p**	**Lower**	**Upper**
Perceived parental stress	-0.1928	0.023	-8.286	0.000	-0.238	-0.147
Emotion-focused coping	0.4878	0.108	4.505	0.000	0.274	0.701
Stress × Emotion-focused coping	0.0098	0.003	2.662	0.008	0.002	0.017

Note. Criterion variable: mental well-being;

The results of the statistical analysis indicate that high levels of perceived parental stress (B = -0.192, SE = 0.023, p < 0.05) are significantly associated with low levels of mental well-being and high levels of use of emotion-focused coping (B = 0.487, SE = 0.108, p < 0.05) are significantly

associated with an increase in mental well-being. The interaction between parental stress and emotion-focused coping is a significant one (B = 0.0098, SE = 0.003, CI = [0.002, 0.017], $p < 0.05$), suggesting that the effect of parental stress on mental well-being depends on the level of use of emotion-focused coping (Table 4). The entire model explains about 30% of the variance of mental well-being, $R^2 = 0.300$, $F(3.198) = 28.39$, $p < .001$. The value of $R^2_{changed} = 0.0250$, which means that the moderating variable, the emotion-focused coping adds 2,5% to the explanation of the mental wellbeing variance. The moderation effect Is quite low, but statistically significant, so the relationship between stress and mental well-being becomes weaker with the growth of emotion-focused coping (Figure 2).

Figure 2.
Regression analysis graph with emotion-focused coping moderator



Avoidant coping as a moderator of the relationship parental stress – mental well-being

Tabel 5. *Results of the moderation model of hypothesis 4*

					95% CI	
Model	**B**	**Std. Err.**	**t**	**p**	**Lower**	**Upper**
Perceived parental stress	-0.1642	0.102	-1.595	0.112	-0.367	0.038
Avoidant coping	-0.1698	0.627	-0.252	0.800	-1.496	1.156
Stress × Avoidant coping	0.0000	0.006	-0.005	0.995	-0.011	0.0118

Note. Criterion variable: mental well-being;

The results of the statistical analysis indicate that in this moderating relationship, high levels of perceived parental stress (B = -0.164, SE = 0.102, $p = 0.112 > 0.05$) are not significantly associated with mental well-being and high levels of avoidant coping use (B = -0.169, SE = 0.627, $p = 0.800 > 0.05$)

are not significantly associated with mental well-being. The interaction between parental stress and avoidant coping is non-existent, statistically insignificant (B = 0.000, SE = 0.006, CI = [-0.011, 0.011], p = 0.995> 0.05), suggesting that the effect of parental stress on mental well-being does not depend on the level of use of avoidant coping (Table 5). The whole model significantly explains about 21.4% of the variance of mental well-being, R^2 = 0.214, F(3.198) = 17.99, p < .001. The value of $R^2_{changed}$ = 0.000, which means that the moderating variable, avoidant coping does not add to the explanation of the variance of the mental state of well-being. The moderation effect is null, so the relationship between stress and mental state is not moderated by avoidant coping.

Type of school and parental stress

In testing H5, in order to understand how the type of school can predict perceived parental stress levels, we used simple linear regression analysis.

Table 6. *Results of regression analysis explaining parental stress based on the type of school (N=202)*

	R	R^2	$R^2_{adjusted}$	β	b	SE b
Type of school	0.238	0.056	0.052	0.238	13.006*	3.759

Note. Criterion variable: perceived parental stress; * p < 0,001

The simple linear regression analysis is statistically significant, F (1, 200) = 11.97, p < 0.001. The regression equation obtained is: perceived parental stress = 92.78 + 13.006 × (type of school). So, the results show us that the predictor type of school explains 5.2% of the variance of parental stress ($R^2_{adjusted}$ = 0.052). The type of school (β = 0.238) is a significant positive predictor of parental stress (p < 0.001 < 0.05), thus, at a change of one unit in the model of our regression, from 0 (mainstream school) to 1 (special school), the stress level will increase (Table 6). This results in the fact that the type of school in which the disabled child is enrolled, predicts the level of stress of the parent, more precisely for the children' parents in the special school, the level of stress is higher than in the case of children' parents in the mainstream school.

Discussions

Research conducted on parents of children with disabilities has shown that the situations generated when raising these children produce high levels

of stress that negatively impact the well-being of parents, and this impact is stronger when the person's self-regulation and adaptation skills are not sufficiently developed (Rabenu et al., 2017). When we talk about these skills, we refer to the idea of coping, which has been shown to be a variable that acts as a moderator in the relationship between stress and mental well-being(Tein et al., 2000). Moreover, Folkman and Moskowitz (2000), have shown in their research that there is an association between the coping strategies used and the level of well-being.

In this research we have highlighted that the stress reported by the parents of children with disabilities is in a significant relationship with their mental well-being, thus, high levels of parental stress predict a low level of mental well-being. So, events in the life of an individual that generate stress negatively impact their well-being (Rabenu et al., 2017). Mental well-being involves high self-esteem, perception of effectiveness, positive and constructive relationships, emotional regulation(Davis et al., 2019; Gull, 2015) and when we talk about high levels of stress, the existence of these components of mental well-being will be diminished. The stressors that affect the mental well-being are diverse, from financial problems(Goudie et al., 2011), problems related to the lack of access to equipment necessary for the child to be able to recover or even to be able to be active (Skok et al., 2006)to concerns about the future of the child (Heiman, 2002; Knussen & Sloper, 1992).

Further, the research focused on analysing how coping strategies manifested by parents moderate the relationship between perceived stress and their mental well-being. All three categories of coping, problem-focused, emotion-focused and avoidant coping, were put under the assumption of being a moderator in the relationship between stress and mental well-being, the results of the interaction being significant for two of them: problem-focused coping and emotion-focused coping. A higher level of problem-focused coping used by parents of children with disabilities will predict a decrease in parental stress levels and a significant increase in mental well-being, findings validated by previous research (Abbeduto et al., 2004; Dellve et al., 2006; Glidden et al., 2006; Smith et al., 2008).

Our findings indicate that the higher the level of use of emotion-focused coping, the lower the effect of parental stress on mental well-being in the case of children' parents with disabilities, this confirming a certain level of moderation in the case of this coping as well. However, compared to the positive interaction of problem- focused coping, the results show us that in the case of emotion- focused coping, this interaction effect is much lower than in the case of the first type of coping, these conclusions being aligned with the

conclusions of previous research (Dunn, 2001; Smith et al., 2008). Parents who predominantly use a higher level of emotion-focused coping over problem-focused coping, especially denial, distraction and disengagement, exhibit higher levels of stress, depressive symptoms, isolation tendencies, and more problems in their relationship with their child (Vernhet et al., 2019). Emotion-focused coping brings a short-term reduction in stress, but it does not provide the means to cope with long-term stressful situations, this leading to a decrease in mental well-being over time (Kim et al., 2003).

The results demonstrated that avoidant coping is not a moderator in the relationship between stress and the mental well-being of children' parents with disabilities, resulting in a positive correlation between avoidant coping and parental stress, and between avoidant coping and mental well-being a negative correlation. So, it is concluded that the more the use of avoidant coping increases, the higher the stress levels and the lower the levels of mental well-being. This is strongly supported by the literature, avoidant coping being seen, rather, as a maladaptive coping style that can reduce stress levels to a certain extent only in the moment, but does not provide the psycho-emotional tools for parents to really manage the stressful situation (Gupta & Kumar, 2020; Pozo et al., 2014).

Finally, this research has shown that enrolment in special school is a predictor of a higher level of stress for parents of children with disabilities than enrolment in mainstream school. The level of parental stress is related to a number of factors, such as the severity of the child's disability, and children in special schools have moderate to severe disabilities, making them unable to be included in a mainstream school (Gallagher & Whiteley, 2013). These disabilities, such as infantile cerebral palsy, severe mental disability, spastic tetra paresis, nonverbal autism, blindness, bring much greater challenges to parents, needing much more physical and psycho-emotional support, having less personal autonomy than children who can be enrolled in a mainstream school. Also, in the case of these parents whose children have more difficult and visible disabilities and are enrolled in special school, the phenomenon of social stigma occurs (Baxter, 2008), which favours the increase of stress levels. Also, another revealing factor is the child's progress in special schools in terms of reduced socialization skills outside the restrictive school environment. This lack of social autonomy contributes to the increase of stress levels of children' parents in special schools, precisely because progress on this area of development is very difficult, especially in the case of severe disabilities (Boutot & Bryant, 2005).

Conclusion

High levels of parental stress have predicted a low level of mental well-being, so we conclude that parental stress is a predictor of mental well-being for children' parents with disabilities. The moderation effect was highest in the case of problem-focused coping, weakening the relationship between parental stress and mental well-being, in the sense that with the increase in the level of use of problem-focused coping, the level of stress of children' parents with disabilities decreases, and the level of well-being increases. For emotion-focused coping, the direction of the results was the same, but the interaction effect was much lower than with problem-focused coping. As for the avoidant coping, it was not a moderator in the relationship between stress and well-being, but a positive correlation between this type of coping and stress was found, in the sense that with the preponderant use of the avoidant coping style, increases were observed in parental stress levels. The type of school in which the disabled child learns, mainstream school or special school, is a predictor of parental stress. The results showed that the type of school explains a small part of the variance of parental stress, in the sense that for parents of children in special education, higher stress levels are predicted than in the case of children' parents in mainstream education.

The present research contributes to the psycho-pedagogical practice by providing an empirical framework regarding the relationship between stress, mental well-being and coping strategies in the case of children' parents with disabilities, both in mainstream schools and in special schools, offering support in the sense of understanding these phenomena and setting objectives of psycho-emotional intervention for parents.

Disclosure statement

No potential conflict of interest was reported by the authors.

References

Abbeduto, L., Seltzer, M. M., Shattuck, P., Krauss, M. W., Orsmond, G., & Murphy, M. M. (2004). Psychological well-being and coping in mothers of youths with autism, Down syndrome, or Fragile X syndrome. *American Journal on Mental Retardation*, *109*(3), 237. https://doi.org/10.1352/0895-8017(2004)109<237:PWACIM>2.0.CO;2

Abidin, R., Flens, J., & Austin, W. (2006). *The parenting stress index*.

Abidin, R. R. (1990). Introduction to the special issue: The stresses of parenting. *Journal of Clinical Child Psychology*, *19*(4), 298–301. https://doi.org/10.1207/s15374424jccp1904_1

Baxter, C. (2008). Investigating stigma as stress in social interactions of parents. *Journal of Intellectual Disability Research*, *33*(6), 455–466. https://doi.org/10.1111/j.1365-2788.1989.tb01501.x

Baxter, C., Cummins, R. A., & Yiolitis, L. (2000). Parental stress attributed to family members with and without disability: A longitudinal study. *Journal of Intellectual & Developmental Disability*, *25*(2), 105–118. https://doi.org/10.1080/13269780050033526

Bell, S. L., Audrey, S., Gunnell, D., Cooper, A., & Campbell, R. (2019). The relationship between physical activity, mental wellbeing and symptoms of mental health disorder in adolescents: A cohort study. *International Journal of Behavioral Nutrition and Physical Activity*, *16*(1), 138. https://doi.org/10.1186/s12966-019-0901-7

Boutot, E., & Bryant, D. (2005). Social integration of students with autism in inclusive settings. *Education and Training in Developmental Disabilities*, *40*.

Carver, C. S. (1997). You want to measure coping but your protocol' too long: Consider the brief cope. *International Journal of Behavioral Medicine*, *4*(1), 92–100. https://doi.org/10.1207/s15327558ijbm0401_6

Cohen, S., Kamarck, T., & Mermelstein, R. (1983). A global measure of perceived stress. *Journal of Health and Social Behavior*, *24*(4), 385. https://doi.org/10.2307/2136404

Cooper, C. L., & Quick, J. C. (Eds.). (2017). *The handbook of stress and health: A guide to research and practice* (1st ed.). Wiley. https://doi.org/10.1002/9781118993811

Crnic, K., & Ross, E. (2017). Parenting stress and parental efficacy. In K. Deater-Deckard & R. Panneton (Eds.), *Parental stress and early child development* (pp. 263–284). Springer International Publishing. https://doi.org/10.1007/978-3-319-55376-4_11

Dabrowska, A., & Pisula, E. (2010). Parenting stress and coping styles in mothers and fathers of pre-school children with autism and Down syndrome. *Journal of Intellectual Disability Research*, *54*(3), 266–280. https://doi.org/10.1111/j.1365-2788.2010.01258.x

Davis, E., Young, D., Gilson, K.-M., Reynolds, J., Carter, R., Tonmukayakul, U., Williams, K., Gibbs, L., McDonald, R., Reddihough, D., Tracy, J., Morgan, J., Ireland, P., Kenyon, C., & Carracher, R. (2019). A capacity building program to improve the self-efficacy of key workers to support the well-being of parents of a child with a disability accessing an early childhood intervention service: protocol for a stepped-wedge design trial. *JMIR Research Protocols*, *8*(4), Article e12531. https://doi.org/10.2196/12531

Deater-Deckard, K., & Panneton, R. (2017). Unearthing the developmental and intergenerational dynamics of stress in parent and child functioning. In K. Deater-Deckard & R. Panneton (Eds.), *Parental stress and early child development* (pp. 1–11). Springer International Publishing. https://doi.org/10.1007/978-3-319-55376-4_1

Dellve, L., Samuelsson, L., Tallborn, A., Fasth, A., & Hallberg, L. R.-M. (2006). Stress and well-being among parents of children with rare diseases: A prospective intervention study. *Journal of Advanced Nursing*, *53*(4), 392–402. https://doi.org/10.1111/j.1365-2648.2006.03736.x

Dunn, M. E. (2001). Moderators of stress in parents of children with autism. *Community Mental Health Journal*, *37*(1), 39–52. https://doi.org/10.1023/A:1026592305436

Eroğlu, Y., Akbaba, S., Adıgüzel, O., & Peker, A. (2014). Learned resourcefulness and coping with stress in mothers of children with disabilities. *Eurasian Journal of Educational Research*, *55*, 243–262. https://doi.org/10.14689/ejer.2014.55.14

Feldman, M. A., Varghese, J., Ramsay, J., & Rajska, D. (2002). Relationships between social support, stress and mother-child interactions in mothers with intellectual disabilities. *Journal of Applied Research in Intellectual Disabilities*, *15*(4), 314–323. https://doi.org/10.1046/j.1468-3148.2002.00132.x

Folkman, S. (2013). Stress: appraisal and coping. In M. D. Gellman & J. R. Turner (Eds.), *Encyclopedia of Behavioral Medicine* (pp. 1913–1915). Springer New York. https://doi.org/10.1007/978-1-4419-1005-9_215

Folkman, S., & Moskowitz, J. T. (2000). Positive affect and the other side of coping. *American Psychologist*, *55*(6), 647–654. https://doi.org/10.1037/0003-066X.55.6.647

Gallagher, S., & Whiteley, J. (2013). The association between stress and physical health in parents caring for children with intellectual disabilities is moderated by children's challenging behaviours. *Journal of Health Psychology*, *18*(9), 1220–1231. https://doi.org/10.1177/1359105312464672

Gilson, K.-M., Davis, E., Corr, L., Stevenson, S., Williams, K., Reddihough, D., Herrman, H., Fisher, J., & Waters, E. (2018). Enhancing support for the mental wellbeing of parents of children with a disability: Developing a resource based on the perspectives of parents and professionals. *Journal of Intellectual & Developmental Disability*, *43*(4), 463–472. https://doi.org/10.3109/13668250.2017.1281386

Glidden, L. M., Billings, F. J., & Jobe, B. M. (2006). Personality, coping style and well-being of parents rearing children with developmental disabilities. *Journal of Intellectual Disability Research*, *50*(12), 949–962. https://doi.org/10.1111/j.1365-2788.2006.00929.x

Goudie, A., Ranbom, L., & Jamieson, B. (2011). *Caring for children with disabilities in Ohio: The impact on families*.

Gull, M., & Nizami, N. (2015). Comparative study of hope and psychological well-being among the parents of physically and intellectually disabled children. *International Journal of Modern Social Sciences*, *4*(42), 143-152.

Gupta, S., & Kumar, A. (2020). The mediating role of positive perceptions on coping strategies and psychological well-being among mothers of children with intellectual disabilities. *Advances in Mental Health and Intellectual Disabilities*, *14*(6), 263–272. https://doi.org/10.1108/AMHID-02-2020-0004

Hastings, R. P. (2002). Parental stress and behaviour problems of children with developmental disability. *Journal of Intellectual & Developmental Disability*, *27*(3), 149–160. https://doi.org/10.1080/1366825021000008657

Hayes, A. F. (2022). *Introduction to mediation, moderation, and conditional process analysis: A regression-based approach* (Third edition). The Guilford Press.

Heiman, T. (2002). Parents of children with disabilities: resilience, coping, and future expectations. *Journal of Developmental and Physical Disabilities*, *14*(2), 159–171. https://doi.org/10.1023/A:1015219514621

Kalin, N. H., Steckler, T., & Reul, J. M. H. M. (2005). *Handbook of stress and the brain* (1st ed). Elsevier.

Kim, H. W., Greenberg, J. S., Seltzer, M. M., & Krauss, M. W. (2003). The role of coping in maintaining the psychological well-being of mothers of adults with intellectual disability and mental illness. *Journal of Intellectual Disability*

Research, *47*(4–5), 313–327. https://doi.org/10.1046/j.1365-2788.2003.00493.x

Kishore, M. T. (2011). Disability impact and coping in mothers of children with intellectual disabilities and multiple disabilities. *Journal of Intellectual Disabilities*, *15*(4), 241–251. https://doi.org/10.1177/1744629511431659

Knussen, C., & Sloper, P. (1992). Stress in families of children with disability: A review of risk and resistance factors. *Journal of Mental Health*, *1*(3), 241–256. https://doi.org/10.3109/09638239209005457

Krohne, H. W. (1986). Coping with stress: Dispositions, strategies, and the problem of measurement. In *Dynamics of stress: Physiological, psychological, and social perspectives.* (pp. 207–232). Plenum Press.

Panjwani, A. A., & Revenson, T. A. (2020). *Coping with chronic illness*. In K. Sweeny, M. L. Robbins, & L. M. Cohen (Eds.), The Wiley Encyclopedia of Health Psychology (1st ed., pp. 61–70). Wiley. https://doi.org/10.1002/9781119057840.ch51

Pickard, K. E., & Ingersoll, B. R. (2017). Using the double ABCX model to integrate services for families of children with ASD. *Journal of Child and Family Studies*, *26*(3), 810–823. https://doi.org/10.1007/s10826-016-0605-4

Pozo, P., Sarriá, E., & Brioso, A. (2014). Family quality of life and psychological well-being in parents of children with autism spectrum disorders: A double ABCX model: Family quality of life and psychological well-being. *Journal of Intellectual Disability Research*, *58*(5), 442–458. https://doi.org/10.1111/jir.12042

Rabenu, E., Yaniv, E., & Elizur, D. (2017). The Relationship between psychological capital, coping with stress, well-being, and performance. *Current Psychology*, *36*(4), 875–887. https://doi.org/10.1007/s12144-016-9477-4

Resch, J. A., Benz, M. R., & Elliott, T. R. (2012). Evaluating a dynamic process model of wellbeing for parents of children with disabilities: A multi-method analysis. *Rehabilitation Psychology*, *57*(1), 61–72. https://doi.org/10.1037/a0027155

Savari, K., Naseri, M., & Savari, Y. (2021). Evaluating the role of perceived stress, social support, and resilience in predicting the quality of life among the parents of disabled children. *International Journal of Disability, Development and Education*, *70*(5), 644–658. https://doi.org/10.1080/1034912X.2021.1901862

Skinner, E. A., & Zimmer-Gembeck, M. J. (2007). The development of coping. *Annual Review of Psychology*, *58*(1), 119–144. https://doi.org/10.1146/annurev.psych.58.110405.085705

Skok, A., Harvey, D., & Reddihough, D. (2006). Perceived stress, perceived social support, and wellbeing among mothers of school-aged children with cerebral palsy. *Journal of Intellectual & Developmental Disability*, *31*(1), 53–57. https://doi.org/10.1080/13668250600561929

Smith, L. E., Seltzer, M. M., Tager-Flusberg, H., Greenberg, J. S., & Carter, A. S. (2008). A comparative analysis of well-being and coping among mothers of toddlers and mothers of adolescents with ASD. *Journal of Autism and Developmental Disorders*, *38*(5), 876–889. https://doi.org/10.1007/s10803-007-0461-6

Stephenson, E., & DeLongis, A. (2020). *Coping strategies*. In K. Sweeny, M. L. Robbins, & L. M. Cohen (Eds.), The Wiley Encyclopedia of Health Psychology (1st ed., pp. 55–60). Wiley. https://doi.org/10.1002/9781119057840.ch50

Stewart-Brown, S., & Janmohamed, K. (2008). Warwick-Edinburgh mental well-being scale. *User Guide. Version*, *1*(10.1037).

Tein, J.-Y., Sandler, I. N., & Zautra, A. J. (2000). Stressful life events, psychological distress, coping, and parenting of divorced mothers: A longitudinal study. *Journal of Family Psychology*, *14*(1), 27–41. https://doi.org/10.1037/0893-3200.14.1.27

Vernhet, C., Dellapiazza, F., Blanc, N., Cousson-Gélie, F., Miot, S., Roeyers, H., & Baghdadli, A. (2019). Coping strategies of parents of children with autism spectrum disorder: A systematic review. *European Child & Adolescent Psychiatry*, *28*(6), 747–758. https://doi.org/10.1007/s00787-018-1183-3