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Article

Fatigue among Greek Parents of Children in Autistic Spectrum Disorders: The Role of Spirituality and Social Support

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Abstract: The high demands of caring for and raising a child with autism spectrum disorder on a daily basis fatally lead parents to the appearance of physical and mental fatigue. This study aimed to assess the effect of social support and spirituality on the fatigue of parents with children with autistic spectrum disorder. A cross-sectional study with a convenience sample was conducted in Schools of Special Education in Attica (Greece). The sample consisted of 123 parents who completed The Fatigue Assessment Scale (FAS), the Multidimensional Scale of Perceived Social Support (MSPSS), and the Functional Assessment of Chronic Illness Therapy Spiritual Well-Being Scale (FACIT Sp-12) to measure the levels of fatigue, social support, and spirituality, respectively. Demographic data were, also, recorded. Data analysis was applied using IBM SPSS 21.0. The mean age was 47.3 years old, 81.3% were women, and 38.9% stated much / very much religious. The mean of total FAS was 28.4 (SD±7.5), of total FACIT Sp-12 was 31.5 (SD±8.7), and of total MSPSS 5.1 (SD±1.1). Higher levels of total MSPSS and FACIT Sp-12 were associated with lower total FAS ($r = -0.50$, $p < 0.001$ and $r = -0.49$, $p < 0.001$ respectively). Social support and spirituality are significant predictors of fatigue.

Keywords: autism spectrum disorder; fatigue; parents; social support; spirituality

1. Introduction

Caring for a child with Autism Spectrum Disorder (ASD) is an extremely stressful experience, leading to a differentiated daily life for both the parents and the rest of the family environment. The variety of problems that accompany ASD can cause a dramatic wave of changes in the lives of parents by affecting their emotional, social, and family lives in a multifaceted way. The high demands of raising a child with ASD lead to physical and mental fatigue for parents, as opposed to parents with children of normal development [1,2].

The perception of fatigue is characterized as a multidimensional, subjective, and unpleasant experience that can hardly be defined. This fact is attributed mainly to the subjective nature of the concept, and as a result, several different definitions and measurements arise [3]. One of the predominant emotions experienced by parents of children with ASD is complete exhaustion which is not just related to the physical fatigue that a parent may feel from daily obligations but also to the inability to regulate autistic behavior [4]. Parents of children with ASD show higher levels of fatigue than parents of children with normal development. In cases where children have sleep disorders, nocturnal awakenings, and intense hyperactivity during the day, parents report severe symptoms of physical exertion, but also loss of control [5]. Fatigue experienced by parents of children with ASD is associated with high levels of stress [6], poor sleep quality, inadequate social functioning, and poor physical and mental well-being [7]. In addition, maternal fatigue and stress can enhance children's problem behaviors and in turn, increase the levels of fatigue that parents already feel [1]. According to the literature, it seems that mothers experience child behavior problems in a different way than fathers [8].

The arrival of a child with ASD affects family relationships both between their own members and the wider social environment [9]. Parents believe that their experiences of raising a child with a developmental disorder are different from those of their relatives and friends who are raising normally developing children. Thus, they are differentiated from other parents and, therefore, feel lonely and isolated [10]. To overcome this problem, the parents' access to various social support resources is an extremely beneficial coping strategy against the stressful situations helping them to cope more successfully with the demands of their child's raising [11]. Support is provided by formal (e.g., the state or related organizations that aim to address the needs of the child with ASD and his family) and informal support resources (the wider family and friendly environment of the family [12]. The material help of family members is not as important as their understanding of ASD and the acceptance of the child with ASD [13]. The perceived social support from various sources such as family or friends seems to be associated with lower levels of stress, and higher levels of quality of life, especially for mothers of children with ASD [14]. Therefore, it seems that social support has been associated with enhancing the mental and physical resilience of parents and consequently with improved and better quality of care for their child [15].

In addition to social support, the international literature emphasizes the importance of understanding parents' spiritual beliefs, values, and priorities as the cornerstone of compensating for the negative effects. Spirituality reflects relationships with ourselves, with other people, with God, and with nature [16], while at the same time is associated with a deep sense of peace and satisfaction [17]. Moreover, recent research has concluded that high levels of spirituality in parents of children with special educational needs or wider disabilities are inextricably linked to improved dimensions of mental health. Spirituality strengthens them to cope with unpleasant psychosomatic situations in which they feel pressure under the weight of obligations, fear, anxiety, despair, shame, or even depression [18]. Through their involvement with faith, parents draw strength to face adversity and adopt a more optimistic approach to life while through prayer they relieve the unpleasant feelings [19]. Most parents, through spirituality, can reconsider their perceptions of their child's disability and turn it from a personal tragedy into a divine gift. They feel that the disability of their children is a blessing from God and that it was given to them by a higher power because of the parental skills they have [20].

Therefore, the aim of this study was to explore the levels of fatigue, spirituality, and social support, the relationship between these variables as well as the effect of spirituality, social support, and demographic characteristics on parents' fatigue. According to the above literature, it was hypothesized that spirituality and social support would be significant predictors of fatigue. As far as it is known, no previous research, not only in Greece but also worldwide, has studied these three variables in parents of children with ASD.

2. Materials and Methods

This is a quantitative, descriptive, cross-sectional study conducted between September and November 2020.

The subjects of the study were parents of children with functional ASD who attend three Special Vocational Gymnasiums and Lyceums of Attica (the most populated county of Greece), Greece. The selection of this sample was based on the ease of access and approach of this population (convenience sampling) as the researchers are school nurses. The inclusion criteria were: (a) be parents of children with functional autism who attend Special Vocational High Schools of Attica, (b) be able to read and understand the Greek language, (c) consent to their participation in the study, (d) be time and space-oriented. Parents with cognitive or psychological disorders, vision loss, and parents of children with other physical or mental disorders were excluded from the study. All 140 parents (both mothers and fathers) were recruited in this study of which 135 were eligible. Of these, 12 parents did not agree to take part in the study. Finally, 123 questionnaires were completed. The questionnaires were provided by the researchers who are school nurses and distributed to the parents upon the arrival and departure of the children from the school.

The current study complied with the fundamental ethical principles governing the conduct of research. The permission to collect personal data was secured by the Institute of Educational Policy (<http://iep.edu.gr/en/>) (Approval No: 50154/Δ3/30.04.2020). A meeting of the school teachers' association was held and after the written positive suggestion, the questionnaires were provided to the parents and were completed by the parents who wished to participate in the study. Written informed consent was approved by participants. The confidentiality of the information concerning the parents and students of the school was maintained. The parents were informed that the security and anonymity of the relevant material would be preserved and that the results would be used exclusively for the purposes of this research and only by the researchers.

To assess fatigue, social support, and spirituality, the following scales were used:

The Fatigue Assessment Scale (FAS) is structured by 10 items in a five-point Likert scale (1 = never to 5 = always) and examines the levels of perceived fatigue. The score ranges from 10 to 50. For the extraction of the score, the answers of the participants are added. Participants with a score <22 are classified as "non-fatigued", 22-34 as "fatigued" and 35-50 as "extremely fatigued". Five questions are related to Physical and five to Mental Fatigue [21]. It takes two minutes to complete. In addition, studies in different populations report the internal consistency and reliability of the FAS (Cronbach's alpha 0.89) [21,22]. It has also been used among parents of children with ASD [1]. The psychometric properties of the Greek version have been tested in both healthy populations and patients (Cronbach's alpha 0.761) [23,24].

The Multidimensional Scale of Perceived Social Support (MSPSS) [25] consists of 12 items, which are answered on a seven-point Likert scale (1 strongly disagree to 7 strongly agree). The tool evaluates three sources of social support: Family, Friends, and Significant Others. Each of the above sources is evaluated based on 4 items. The total score ranges between 12 to 84 and is obtained from the sum of the scores of all subscales. The high score reflects higher levels of perceived social support. It is short, easy to use, and understandable even in low-educated populations. In addition, as reported in the research of Zimet et al. [25], the MSPSS shows good internal consistency in different groups of subjects. The scale has been used in Greek patients [26] and healthy populations [27] with very good internal consistency according to Cronbach's alpha Index (0.93) [28].

The Functional Assessment of Chronic Illness Therapy-Spiritual Well-Being Scale-12 non-illness (FACIT Sp-12) adapted to the general population is a self-administered questionnaire constructed in 1990 [29] as a short tool for assessing three domains of spirituality: Peace, Meaning in Life, and Faith. It is structured by 12 items on a five-point Likert scale (0 = not at all to 4 = a lot). The questions concern the period of the last 7 days. The total score is derived from the sum of the answers, with the highest scores indicating higher levels of spirituality. The tool has been translated into several languages, including Greek with Cronbach's alpha Index of 0.77 [30].

Finally, data related to sociodemographic characteristics were recorded.

The absolute (n) and relative (%) frequencies present the categorical variables while mean, standard deviation, minimum and maximum values the quantitative variables. To investigate the relationship between two quantitative variables that followed the normal distribution, the Pearson correlation coefficient was used. If the bivariable analysis >2 independent variables were statistically significant at the level of 0.2 ($p < 0.2$), multivariate linear regression was applied with dependent variable fatigue scores. In this case, the method of multiple linear regression was performed (backward stepwise linear regression) with b coefficients, confidence intervals of 95%, and p-values. Statistical significance was set at the level of 0.05. Data analysis was applied using IBM SPSS 21.0 (Statistical Package for Social Sciences, SPSS Inc., Chicago, IL, USA).

3. Results

The study population included 123 participants. The mean age was 47.3 years while 81.3% were women, and 77.2% were married. A percentage of 95.9% were Orthodox Christians and 38.9% stated much / very much religious. The sociodemographic characteristics are presented in Table 1.

Table 1. Participants' demographic characteristics.

	N	%
Gender		
Males	23	18.6
Females	100	81.3
Age*	47.3 (6.3)	
Marital status		
Married	95	77.2
Divorced	23	18.9
Unmarried	1	0.81
Widows	3	2.5
Children		
1	33	26.8
2	72	58.5
>2	18	14.6
Educational level		
Secondary School	18	14.6
High School	52	42.2
University	32	26.0
MSc/Ph.D.	18	14.6
Employment status		
State employee	37	30.0
Private employee	49	39.8
Unemployed	21	17.0
Household	4	3.25
Retired	6	4.87
Freelance	5	4.2
Religious		
Not at all	4	3.25
Too little	29	23.5
Little	42	34.1
Much	12	9.75
Too much	36	29.2

*Mean (Standard Deviation)

Regarding the levels of fatigue, social support, and spirituality, the mean values of the three scales indicate moderate levels of total fatigue (Mean 28.4, SD=7.5), relatively high levels of total spirituality (Mean 31.5, SD=8.7), and very low levels of total social support (Mean 5.1, SD=1.1) (Table 2). Participants appeared to experience higher levels of Physical Fatigue (Mean 20.8, SD=5.8) compared to Mental (Mean 8.9, SD=1.6). The majority evaluated positively the dimensions of spirituality and especially the Peace (Mean 12.9, SD=3). The most important source of social support was the Significant Others (Mean 5.2, SD=1.2).

Table 2. The descriptive characteristics of the scales.

Scales	Mean	SD*	Min	Max
FAS				
Physical Fatigue (Theoretical range 5-25)	20.8	5.8	8	32
Mental Fatigue (Theoretical range 5-25)	8.9	1.6	5	13
Total FAS (Theoretical range 10-50)	28.4	7.5	11	43
MSPSS				
Significant Others (Theoretical range 1-28)	5.2	1.2	1	7
Family (Theoretical range 1-28)	5.1	1.3	1	7
Friends (Theoretical range 1-28)	5	1.3	1	7
Total MSPSS (Theoretical range 1-84)	5.1	1.1	1.6	7
FACIT Sp-12				
Peace (Theoretical range 0–16)	12.9	3.0	3	16
Meaning in Life (Theoretical range 0–16)	8.8	4.0	2	16
Faith (Theoretical range 0–16)	9.9	3.9	1	16
Total FACIT Sp-12 (Theoretical range 0–48)	31.5	8.7	10	46

*Standard Deviation

As far as the correlations between the three variables is concerned, the results showed that both social support and spirituality were negatively associated with fatigue. Table 3 shows that higher levels of total FACIT Sp – 12 were associated with lower levels of total fatigue ($r=-0.49$, $p<0.001$). Also, higher levels of MSPSS were associated with lower levels of total FAS ($r=-0.50$, $p<0.001$). Negative correlations were, also, observed between all the dimensions of FAS and all the dimensions of MSPSS and FACIT Sp-12. In addition, higher levels of total MSPSS were associated with higher levels of total FACIT Sp-12 ($r=0.51$, $p<0.001$). Also, positive correlations were emerged between all the dimensions of MSPSS and all the dimensions of FACIT Sp-12.

Table 3. The correlations between fatigue, social support, and spirituality.

Scales	Physical Fatigue	Mental Fatigue	Total FAS	Significant Others	Family	Friends	Total MSPSS
Significant Others	-0.40 (<0.001)	-0.21 (0.02)	-0.46 (<0.001)				
Family	-0.41 (<0.001)	-0.29 (<0.001)	-0.47 (<0.001)				
Friends	-0.38 (<0.001)	-0.24 (0.007)	-0.40 (<0.001)				
Total MSPSS	-0.45 (<0.001)	-0.28 (<0.001)	-0.50 (<0.001)				
Meaning in life	-0.34 (<0.001)	-0.14 (0.1)	-0.38 (<0.001)	0.54 (<0.001)	0.47 (<0.001)	0.31(<0.001)	0.5 (<0.001)
Peace	-0.55 (<0.001)	-0.31 (<0.001)	-0.56 (<0.001)	0.45 (<0.001)	0.56 (<0.001)	0.40 (<0.001)	0.53 (<0.001)

Faith	-0.21 (0.02)	-0.10 (0.2)	-0.24 (0.01)	0.22 (<0.001)	0.30 (0.01)	0.10 (0.5)	0.22 (0.01)
Total FACIT	-0.46 (<0001)	-0.24 (0.007)	-0.49 (<0.001)	0.49 (<0.001)	0.55 (<0.001)	0.32 (<0.001)	0.51 (<0.001)

Values are expressed as Pearson's correlation coefficient (p-value).

After bivariable analyzes, statistical relationships emerged at the level of 0.20 ($p < 0.20$) between independent variables (spirituality, social support, and demographics) and the total fatigue and its dimensions. For this reason, multivariate linear regressions were applied with total FAS and its dimensions as dependent variables and FACIT Sp-12, MSPSS as independent variables along with demographics. It is observed that Peace and support from Significant Others can positively affect the total fatigue. Also, the gender (female) had a significant influence as mothers had higher total FAS Score than fathers (Table 4).

Table 4. Multivariate linear regression with step-wise method with total fatigue as the dependent variable and social support, and spirituality as independent variables adjusted for demographic characteristics.

Independent variables	β -coefficient	95% CI*		p-value
		Lower	Upper	
Mothers compared to fathers	4.8	2.1	7.6	0.001
Peace	-0.8	-1.1	-0.5	<0.001
Important others	-1.3	-2.3	-0.4	0.008

The above variables explain 42% of the variability of total fatigue

*Confidence Interval

In addition, investigating Physical Fatigue as dependent and FACIT Sp-12, MSPSS as independent variables, a positive effect on fatigue emerged since the higher levels of Peace were associated with lower Physical Fatigue. Also, mothers experienced higher Physical Fatigue than fathers (Table 5).

Table 5. Multivariate linear regression with physical fatigue as a dependent variable and social support, spirituality as independent variables adjusted for demographic characteristics.

Independent variables	β -coefficient	95% CI*		p-value
		Lower	Upper	
Mothers compared to fathers	4.3	1.6	6.9	0.002
Peace	-0.7	-0.9	-0.4	<0.001

The above variables explain 37% of the variability of Physical Fatigue

*Confidence Interval

Similarly, the high level of social support from Family positively affects the Mental Fatigue. The high educational level was associated with an increase in Mental Fatigue. Mothers experienced higher Mental Fatigue than fathers (Table 6).

Table 6. Multivariate linear regression with mental fatigue as a dependent variable and social support, spirituality as independent adjusted for demographic characteristics.

Independent variables	β -coefficient	95% C		p-value
		Lower	Upper	
Mothers compared to fathers	0.9	0.2	1.6	0.01
Educational level	0.3	0.08	0.5	<0.008
Family	-0.3	-0.5	-0.1	0.003

The above variables explain 21% of the variability of Mental Fatigue

CI: Confidence Interval

Participants with a lower educational level and higher religiosity had higher scores of Total FACIT Sp-12 ($\beta = -1.6$, CI: -2.6 to -0.5, $p < 0.005$ and $\beta = 2.5$, CI: 1.4 to 3.7, $p < 0.001$, respectively). The above variables explain 18% of the variability of Total FACIT Sp-12.

4. Discussion

The current study was conducted among parents of children with ASD and investigated the effect of spirituality and social support on the levels of fatigue. The study is significant, as the lack of spirituality and social support may negatively affect parental fatigue leading to inadequate care for children with ASD [31].

According to the results, the parents experienced moderate levels of total fatigue and spirituality and very low levels of social support. Regarding fatigue, participants referred higher levels of physical fatigue and lower mental fatigue. This finding is in line with the findings of the empirical study of Giallo et al. [1]. The moderate levels of parental fatigue in this study seem to be proportional to the severity of the cognitive and behavioral deficits of ASD considering that the sample of the study consisted of parents of children with high-functioning autism. In terms of spirituality, parents reported higher spirituality based on the dimensions of Peace, followed by Faith and Meaning of life. Also, the mean scores of the social support scale reflected low levels of social support, with the Significant Others being the most important source of social support followed by Family and Friends. Nevertheless, other studies have identified Friends and Family as the most important sources of social support [32,33].

As far as the relationships between the three variables are concerned, it emerged that the higher total social support and its dimensions were associated with lower total fatigue and its dimensions. Similar findings are presented by Ardic [34], who observed a significant prevalence of exhaustion in parents receiving mitigated social support. In addition, as shown in other studies [31], the perceived social support received by parents of children with ASD appears to be associated with mental and physical well-being and resilience, and high quality of life. Higher levels of social support are negatively associated with fatigue, stress, and depression in parents of children with ASD. Thus, these results reflect the importance of informal support networks, as an important strategy for dealing with the mental and physical effects of ASD [31].

Also, a negative correlation was found between fatigue and spirituality as the higher the spirituality levels the lower the fatigue levels. This finding is in line with the finding of a study [35] in which mothers of children with mental disabilities who took spiritual self-care training experienced a reduced burden of care. There is a sense that in the course of time parents change the way they perceive their child's disorder and the world. It has been reported that parents of children with disabilities embrace a wide range of positive change, seek answers to questions such as the meaning and purpose of life [36], and acquire personal gifts such as strengthening religious beliefs and greater appreciation even for meaningless things in life.

From the findings of this study, it seems that the higher total social support, support from Significant Others, Family, and Friends was associated with higher spirituality based on the

dimensions of Meaning of life, Peace, and Faith. In a previous study [37], the negative correlation between spirituality and social support was attributed to the fact that parents who experienced social isolation were more likely to seek spiritual support. In addition, spiritual pursuits were used more as a mean of escape from the daily difficulties and burden of caring for a child with ASD. However, a positive correlation has been observed between social support and spirituality among different populations [38]. This relationship may be attributed to the fact that spiritual beliefs and religious behaviors encourage involvement in social support.

Concerning the effect of spirituality on fatigue levels, it was found that spirituality plays a significant positive role in mental and physical fatigue. Parents with higher levels of Meaning of life, Peace, and Faith showed lower levels of Total, Physical and Mental Fatigue. Similarly, researchers [18] observed higher levels of resilience, sense of coherence, and adjustment in parents of children with ASD who had received some spiritual lessons. Similar results have been presented in previous studies [1,39], emphasizing the significant role of spiritual wellbeing in the improvement of various dimensions of the psychological sphere such as anxiety, lack of satisfaction, and depression. It seems that parents through spirituality face the problem with a positive attitude as they focus more on the positive dimensions and contributions of their child with ASD [40]. This fact may be able to alleviate perceived fatigue.

Regarding the effect of gender on fatigue levels, the present study shows that mothers experience more physical and mental fatigue than fathers. This finding seems to be consistent with other studies [41] which have shown that mothers experience the care of burden and symptoms of fatigue more often than fathers. In addition, according to Nacul et al. [42], fathers seem to be influenced more on a mental level, while women on a physical level. The strategies that parents apply in order to meet the requirements of the parental role differ between mother and father due to particular individual characteristics and differences in family circumstances. The intense fatigue among mothers is probably attributed to the mother's sense of guilt, the concern for the child's excessive dependence on the family, and to the lack of resilience which leads to adjustment difficulties.

Finally, according to other results from the present study, it appears that the higher degree of religiosity and the low level of education had a positive effect on overall spirituality. Regarding religiosity, other studies [20] have suggested that engaging in metaphysical transcendence, spiritual beliefs, and prayer alleviates emotions, improves, and promotes the mental health of parents of children with ASD or other special educational needs

The sample of the study (convenience sampling) came from schools in Attica, therefore the generalization of the results may be subject to relevant restrictions. In addition, although the sample size was partially satisfactory, mothers appeared to be the vast majority of participants, which raises significant concerns about the representativeness of the sample. Also, the period of completing the questionnaires (COVID-19 Pandemic) may have influenced the objectivity of the views expressed by the parents.

5. Conclusions

In conclusion, the present study recorded moderate levels of fatigue and spirituality but also low levels of social support for parents raising a child with ASD. Subsequently, significant negative correlations were observed between fatigue and social support, fatigue and spirituality, and a positive correlation between social support and spirituality. The effect of gender seems to be particularly important as mothers of children with ASD seem to experience fatigue to a greater extent than fathers. The results suggest that social support and spirituality help to reduce perceived fatigue and therefore strengthen the resilience of parents of children with ASD. However, the emphasis on personalized spiritual care remains an important dimension. School nurses can, also, encourage parents to express their spiritual beliefs and needs as well as their inclusion in organized groups or support and mutual aid networks between parents. The process of acquiring adjustment mechanisms that parents will use to manage the exhaustion caused by their child's stressful demands is very useful.

Social policies that focus on psycho-educating parents about fatigue and its potential impact on their overall well-being, parenting skills and caregiving responsibilities are recommended. In addition, implementing strategies to moderate the promotion of healthy behaviors and enhance opportunities for social support may also prove beneficial for parents.

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Informed Consent Statement: Informed consent was obtained from all subjects involved in the study.

Data Availability Statement: The data presented in this study are available on request from the corresponding author. The data are not publicly available due to participants' confidentiality.

Conflicts of Interest: The authors declare no conflict of interest.

References

- Giallo, R.; Wood, C. E.; Jellett, R.; Porter, R. Fatigue, wellbeing and parental self-efficacy in mothers of children with an autism spectrum disorder. *Autism* **2013**, *17*, 465–480.
- Begum, R.; Mamin, F.A. Impact of autism spectrum disorder on family. *Autism-Open Access* **2019**, *9*, 244.
- Beydoun, J.; Nasrallah, L.; Sabrah, T.; Caboral-Stevens, M. Towards a definition of caregiver fatigue: a concept analysis. *Adv. Nurs. Sci.* **2019**, *42*, 297–306.
- Kütük, M. Ö.; Tufan, A. E.; Kılıçaslan, F.; Güler, G.; Çelik, F.; Altıntaş, E.; Gökçen, C.; Karadağ, M.; Yektaş, Ç.; Mutluer, T.; Kandemir, H.; Büber, A.; Topal, Z.; Acikbas, U.; Giray, A.; Kütük, Ö. High depression symptoms and burnout levels among parents of children with autism spectrum disorders: A multi-center, cross-sectional, case-control study. *J. Autism Dev. Disord.* **2021**, *51*, 4086–4099.
- Benderix, Y.; Nordström, B.; Sivberg, B. Parents' experience of having a child with autism and learning disabilities living in a group home: a case study. *Autism* **2006**, *10*, 629–641.
- Miranda, A.; Mira, A.; Berenguer, C.; Rosello, B.; Baixauli, I. Parenting stress in mothers of children with autism without intellectual disability. Mediation of Behavioral Problems and Coping Strategies. *Front. Psychol.* **2019**, *10*, 464.
- Mihaila, I.; Hartley, S. L. Parental sleep quality and behavior problems of children with autism. *Autism*, **2018**, *22*, 236–244.
- Seymour, M.; Wood, C.; Giallo, R.; Jellett, R. Fatigue, stress and coping in mothers of children with an autism spectrum disorder. *J. Autism Dev. Disord.* **2013**, *43*, 1547–1554.
- Krieger, B.; Piškur, B.; Schulze, C.; Jakobs, U.; Beurskens, A.; Moser, A. Supporting and hindering environments for participation of adolescents diagnosed with autism spectrum disorder: a scoping review. *PloS One*, **2018**, *13*, e0202071.
- Ventola, P.; Lei, J.; Paisley, C.; Lebowitz, E.; Silverman, W. Parenting a child with ASD: comparison of parenting style between ASD, anxiety, and typical development. *J. Autism Dev. Disord.* **2017**, *47*, 2873–2884.
- Vernhet, C.; Dellapiazza, F.; Blanc, N.; Cousson-Gélie, F.; Miot, S.; Roeyers, H.; Baghdadli, A. Coping strategies of parents of children with autism spectrum disorder: a systematic review. *Eur. Child Adolesc. Psychiatry* **2019**, *28*, 747–758.
- McIntyre, L. L.; Brown, M. Examining the utilisation and usefulness of social support for mothers with young children with autism spectrum disorder. *J. Intellect. Dev. Disabil.* **2018**, *43*, 93–101.
- Weiss, J. A.; Cappadocia, M. C.; MacMullin, J. A.; Viecili, M.; Lunsy, Y. The impact of child problem behaviors of children with ASD on parent mental health: the mediating role of acceptance and empowerment. *Autism* **2012**, *16*, 261–274.
- Hashir Ahammed, A. V. Quality of life, parental stress & perceived social support among parents of children with autism spectrum disorder. *Int. J. Indian Psychol.* **2021**, *9*, 358–374.
- Ilias, K.; Cornish, K.; Kummar, A. S.; Park, M.S.; Golden, K. J. Parenting stress and resilience in parents of children with autism spectrum disorder (ASD) in Southeast Asia: a systematic review. *Front. Psychol.* **2018**, *9*, 280.

16. Fradelos, E. C.; Tzavella, F.; Koukia, E.; Papathanasiou, I. V.; Alikari, V.; Stathoulis, J.; Panoutsopoulos, G.; Zyga S. Integrating chronic kidney disease patient's spirituality in their care: Health benefits and research perspectives. *Mater. Socio Med.* **2015**, *27*, 354.
17. Duarte, E. D.; Braga, P. P.; Guimarães, B. R.; da Silva, J.B.; Caldeira, S. A. Qualitative study of the spiritual aspects of parenting a child with Down Syndrome. *Healthcare* **2022**, *10*, 546.
18. Pandya, S. P. Spirituality to build resilience in primary caregiver parents of children with autism spectrum disorders: a cross-country experiment. *Int. J. Dev. Disabil.* **2016**, *64*, 53–64.
19. Willis, K.; Timmons, L.; Pruitt, M.; Schneider, H. L.; Alessandri, M.; Ekas, N. V. The relationship between optimism, coping, and depressive symptoms in hispanic mothers and fathers of children with autism spectrum Disorder. *J. Autism Dev. Disord.* **2016**, *46*, 2427–2440.
20. Salkas, K.; Magaña, S.; Marques, I.; Mirza, M. Spirituality in Latino families of children with autism spectrum disorder. *J. Fam. Soc. Work* **2016**, *19*, 38-55.
21. Michielsen, H. J.; De Vries, J.; Van Heck, G. L. Psychometric qualities of a brief self-rated fatigue measure: The Fatigue Assessment Scale. *J. Psychosom. Res.* **2003**, *54*, 345–352.
22. De Vries, J.; Michielsen, H.; Van Heck, G. L.; Drent, M. Measuring fatigue in sarcoidosis: the Fatigue Assessment Scale (FAS). *Br. J. Health Psychol.* **2004**, *9*, 279–291.
23. Alikari, V.; Fradelos, E.; Sachlas, A.; Panoutsopoulos, G.; Lavdaniti, M.; Palla, P.; Giatrakou, S.; Stathoulis, J.; Babatsikou, F.; Zyga, S. Reliability and validity of the Greek version of "The Fatigue Assessment Scale". *Arch. Hell. Med.* **2016**, *33*, 231–238. <https://www.mednet.gr/archives/2016-2/231abs.html>.
24. Alikari, V.; Sachlas, A.; Giatrakou, S.; Stathoulis, J.; Fradelos, E.; Theofilou, P.; Lavdaniti, M.; Zyga, S. Fatigue in arthritis: a multidimensional phenomenon with impact on quality of life. *Adv. Exp. Med. Biol.* **2017**, *987*, 243–256.
25. Zimet, G. D.; Powell, S. S.; Farley, G. K.; Werkman, S.; Berkoff, K. A. Psychometric characteristics of the Multidimensional Scale of Perceived Social Support. *J. Pers. Assess.* **1990**, *55*, 610-617.
26. Alexopoulou, M.; Giannakopoulou, N.; Komna, E.; Alikari, V.; Toulia, G.; Polikandrioti, M. The effect of perceived social support on hemodialysis patients' quality of life. *Mater. Socio Med.* **2016**, *28*, 338–342.
27. Tzeletopoulou, A.; Alikari, V.; Krikelis, M. I.; Zyga, S.; Tsironi M.; Lavdaniti, M.; Theofilou, P. Fatigue and perceived social support as predictive factors for aggressive behaviors among mental healthcare professionals. *Arch. Hell. Med.* **2019**, *36*, 792-799.
28. Tsilika, E.; Galanos, A.; Polykandriotis, T.; Parpa, E.; Mystakidou, K. Psychometric properties of the Multidimensional Scale of Perceived Social Support in Greek nurses. *Can. J. Nurs. Res.* **2018**, *51*, 23-30.
29. Bredle, J.; Salsman, J.; Debb, S.; Arnold, B.; Cella, D. Spiritual well-being as a component of health-related quality of life: the functional assessment of chronic illness therapy—spiritual well-being scale (FACIT-Sp). *Religions* **2011**, *2*, 77-94.
30. Fradelos, E. C.; Tzavella, F.; Koukia, E.; Tsaras, K.; Papathanasiou, I. V.; Aroni, A.; Alikari, V.; Ralli, M.; Bredle, J.; Zyga, S. The translation, validation and cultural adaptation of Functional Assessment of Chronic Illness Therapy-Spiritual Well-Being 12 (facit-sp12) Scale in Greek Language. *Mater. Socio Med.* **2016**, *28*, 229.
31. Marsack, C. N.; Samuel, P. S. Mediating effects of social support on quality of life for parents of adults with autism. *J. Autism Dev. Disord.* **2017**, *47*, 2378-2389.
32. Paynter, J.; Davies, M.; Beamish, W. Recognizing the "forgotten man": Fathers' experiences in caring for a young child with autism spectrum disorder. *J. Intellect. Dev. Disabil.* **2018**, *43*, 112-124.
33. Pepperell, T. A.; Paynter, J.; Gilmore, L. Social support and coping strategies of parents raising a child with autism spectrum disorder. *Early Child Dev. Care* **2018**, *188*, 1392-1404.
34. Ardic, A. Relationship between parental burnout level and perceived social support levels of parents of children with autism spectrum disorder. *Int. J. Educ. Methodol.* **2020**, *6*, 533-543.
35. Dindar, M.; Rahnama, M.; Afshari, M.; Moghadam, M. P. The effects of Spiritual Self-Care Training on caregiving strain in mothers of mentally retarded children. *J. Clin. Diagn. Res.* **2016**, *10*, QC01–QC05.
36. Bernier, A.S.; McCrimmon, A.W. Attitudes and perceptions of Muslim parents toward their children with autism: a systematic review. *Rev. J. Autism Dev. Disord.* **2021**, *9*, 320-333.
37. Gallagher, S.; Phillips, A. C.; Lee, H.; Carroll, D. The association between spirituality and depression in parents caring for children with developmental disabilities: Social support and/or last resort. *J. Relig. Health* **2015**, *54*, 358-370.
38. Alorani, O. I.; Alradaydeh, M. T. F. Spiritual well-being, perceived social support, and life satisfaction among university students. *Int. J. Adolesc. Youth* **2018**, *23*, 291-298.
39. Milgramm, A.; Corona, L. L.; Janicki-Menzie, C.; Christodulu, K. V. Community-based parent education for caregivers of children newly diagnosed with autism spectrum disorder. *J. Autism Dev. Disord.* **2022**, *52*, 1200–1210.
40. Ekas, N. V.; Tidman, L.; Timmons, L. Religiosity/spirituality and mental health outcomes in mothers of children with autism spectrum disorder: the mediating role of positive thinking. *J. Autism Dev. Disord.* **2019**, *49*, 4547-4558.

41. Picardi, A.; Gigantesco, A.; Tarolla, E.; Stoppioni, V.; Cerbo, R.; Cremonte, M.; Alessandri, G.; Lega, I.; Nardocci, F. Parental burden and its correlates in families of children with autism spectrum disorder: a multicentre study with two comparison groups. *Clin. Pract. Epidemiol. Ment. Health* **2018**, *14*, 143–176.
42. Nacul, L. C.; Lacerda, E. M.; Campion, P.; Pheby, D.; de L Drachler, M.; Leite, J. C.; Poland, F.; Howe, A.; Fayyaz, S.; Molokhia, M. The functional status and well being of people with myalgic encephalomyelitis/chronic fatigue syndrome and their carers. *BMC Public Health* **2011**, *11*, 402.

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