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Challenges and coping mechanism of caregivers of children with autism spectrum disorder: A cross-sectional study

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Abstract

Raising a child with Autism Spectrum Disorder came to terms with parental burden facing challenges and coping strategies of the parents. It’s a lifetime responsibility for caregivers, exploring their burdens, expectations and coping in dealing with unusual child behavior. This study utilized a quantitative, descriptive cross-sectional research in order to explore the challenges and coping strategies of caregivers of children with Autism Spectrum Disorder. The purposive sampling technique was used in selecting the 102 total samples. Those samples were from the data lists of caregivers of children with ASD from the Riyadh Autism Centers. The data were collected by using a self-administered questionnaire distributed electronically among caregivers with an autistic child with the help of autism centers. The data were analyzed by Statistical Package for the Social Sciences version 23.0. Findings indicated that ASD is more prevalent in male than female. The profound category or the milder type is the common ASD severity levels. Physical challenges were apparently encountered by the caregivers as compared to the mental challenges. Strengthening one’s spiritual to positivity, hope and prayer is the main coping strategies performed by the caregivers with ASD children. Five of the socio-demographics were statistically significant to challenges and coping strategies.

Keywords: Autism, caregivers, challenges, coping mechanism

Introduction

The Autism Spectrum Disorder (ASD) is a neurological disorder affecting developmental milestone of the people. This is a disorder affecting people’s interaction with others in communication, learning and behavior. This developmental disorder usually appears in the first 2 years of life [1]. This disorder affects people of all races, ethnicities, genders, and economic status. Based on the Diagnostic and Statistical Manual of Mental Disorders (DSM-5), a guide to providers to diagnose mental disorders which often ASD patients as having difficulty with communication and interaction with other people, restricted interested and repetitive behaviors as well as symptoms that affect their ability to function in most areas of life.

It is estimated to 1 in every 100 children around the world has autism [2]. This represents the average figures. Some well controlled research revealed figures that are substantially higher. But the prevalence of autism in most low and middle income countries is still unidentified. The Autism Spectrum Disorder (ASD) prevalence in the world is increasing. Mostly the caregivers are at greater risk of psychological distress and maladaptation, but many of these caregivers were able to overcome difficulties resulting to good quality of life [3]. Meanwhile, In Saudi Arabia, between December 2017 and March 2018, the prevalence of Autism Spectrum Disorder (ASD) between 2-4 years old in five different hospitals in Riyadh is at 2.51 percent, 25 per 1000 with a ratio of male to female of 3:1. This high prevalence of ASD in Riyadh hospitals alone is near to the international studies rate trends [4].

The nurse has the responsibilities to advocate and educate the families and their significant others on proper caring of children with autism. Caregivers usually the mothers need to control stress and parenting tensions with the autistic child, reduce burden and creating stability in the family. The care burden is the effects of parental stress and in the developmental milestone of understanding the autistic children [5]. Studies have shown that parents having autistic children experienced countless challenges which affect their ability and tolerance. Meanwhile, the effect of having children with autism made the caregivers especially the mother to become frustrated and abandon the education and care of the child. Withdrawing the autistic child to participate in the education causes inefficiency and lack of parental competence. Decreasing participation in the care of the children may increase burden of care v. In this regard, the burden of care imposed to mother need to be sought to understand the challenges they had faced and the level of support they need to cope up with the problems. Previous research revealed that there was an indirect correlation between caring burdens with coping strategies [7]. The results also found that caring burden of mothers caring for autistic child correlates with coping strategies. Despite few researches on caregivers' challenges, and coping mechanisms, the well-being of caregivers must be focused. Therefore, due to the level of care burden experienced by the mothers taking care of child with autism, the need to investigate those challenges and coping mechanism can help in addressing the caregivers to manage those challenges.

General Aims of the Study

The aimed of this study is to determine the challenges and coping mechanisms of caregivers of children with Autism Spectrum Disorder (ASD) in Riyadh City.

Research Hypotheses

1. **H_0:** There is no significant difference on the challenges perceived by the caregivers when grouped according to demographic characteristics
2. **H_1:** There is no significant difference on the coping strategies perceived by the caregivers as to ASD severity

Conceptual Framework

This research involved 102 caregivers of children with Autism Spectrum Disorder who are currently residing in Riyadh City based on the list of the Autism Centers. From the researchers, the visual representation of the conceptual framework was created and illustrated below:

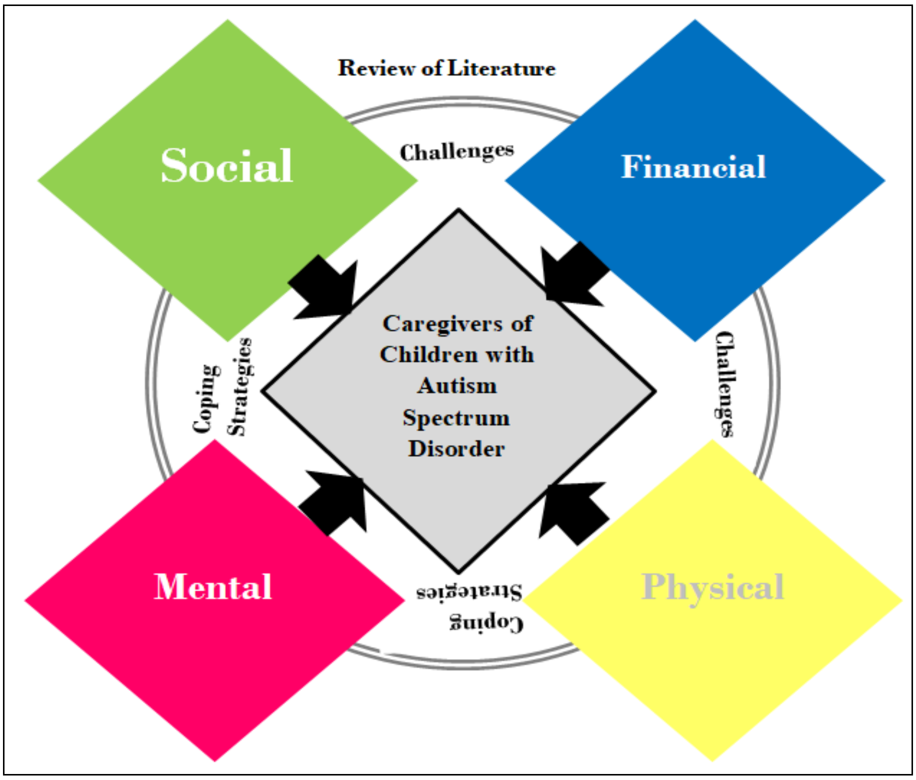

Fig 1: The visual representation of the conceptual framework of the study

In figure 1, this study focuses on the challenges and coping strategies being perceived by the caregivers with ASD children. In learning about the aspects affecting the caregivers, each was shaded with different color, representing the degree of each implicating the caregivers' role. The diamond shaped represents the caregivers' strength and invulnerability as they cannot escape from those factors. Based on this premise, a conceptual framework was developed.

The conceptual framework is based on the influencing factors from the analysis of literature and studies to identify which areas were affected tremendously which the respondents believed they have facing difficulties. The illustration above help the researchers in the understanding of the aspects of caregiver impacted the most.

Materials and Methods

Study Design: This research employed quantitative research, cross-sectional design as it sought to assess the challenges and coping mechanism of the caregivers taking care of their children with autism spectrum disorder. This study design involves looking at data from the target population. This method is encouraged in this study as a reliable approach in measuring outcomes and exposure of the study subjects. It provides a snapshot of the caregivers' challenges and coping mechanisms.

Sample Characteristics

For sampling, the researchers went to two autism centers in Riyadh City. The researchers sent the permission letter to conduct the study with informed consent which is attached.

After the approval, the researchers asked for the phone number of the mothers of children with autism. They were the respondents who belong to the inclusion criteria. The researchers communicate with the mother to tend them to participate in this study. Their emails were asked and the research instrument tool was sent to them. A total of 102 mothers/caregivers with autistic children were selected through judgmental sampling technique. Inclusion criteria will include: (1) age of the caregiver; (2) gender of the caregiver; (3) Educational level; (4) Income status; (5) level of child's autism. Those with desire and willingness to be part of the study were the study participants. Those with incomplete answer to the questionnaire and do not have consent to this study were the exclusion criteria.

Data Collection Methods

For the research gathering tool, this study utilized a self-constructed questionnaire in order to collect the data from the population of this study. The said questionnaire consists of 4 parts. The first part is the demographic information of both the caregiver and the child with autism. This include caregivers' age, gender, economic status/family income per month, educational level, number of children, age of the child, gender and severity of autism. The second part of the questionnaire categorizes the level of severity of autism based on the DSM-5 Diagnostic Criteria Autism Spectrum Disorder Guideline. It will indicate the severity of the ASD in the areas of social communication and restricted/repetitive behavior. The third part measures the challenges experience by the caregivers. The last part represents the coping mechanism employed by the caregivers. Challenges and coping mechanisms were in the aspects of physical, mental, social and financial. Both consist of five statements for each aspect. A 4-point Likert scale with be used as (4) Strongly agree; (3) Agree; (2) Disagree; (1) Strongly disagree. For validity, the questionnaire underwent face and content validity from the 3 validators/experts. It was also pretested to 10 mothers who taking care of a child with autism which are not part of the actual study. The questionnaire underwent reliability testing using Cronbach's alpha. The computed result is 0.792 which means acceptable.

Survey Administration

This study was performed from November 1, 2023 to January 31, 2024 upon obtaining approval from the university research center and REU Institutional Review Board. The researchers sent emails and reminders to the participants in order for the questionnaires be gathered completely or have more response-rate (90%). Using an online tools e.g., Google forms, the link were sent to the respondents once they consented to the study. It took three times to follow up the responses to the research collection tool. This study used only one email address for each respondent to prevent multiple participation of the study participants.

Ethical Consideration

This research requires a permission letter from the university research center to be sent to the Autism Centers. Securing respondent's informed consent and Institutional Review Board (IRB) approval were necessary before the conduct of the study. The researchers assured the anonymity and confidentiality of the data gathered.

Statistical Analysis

The collected data was entered into Statistical Package for Social Sciences (SPSS) version 23.0. Nominal categorical data was presented in terms of frequency and percentage and the ordered categorical data was presented as to weighted arithmetic mean. The hypotheses were computed using the analysis of variance. The confidence intervals (CI) were used for categorical variables. The significance level was set at $p \leq 0.05$.

Results and Discussion

Table 1: Demographic profile of the caregivers who have children with ASD

Variable	Characteristics	Frequency	Percentage
Age	19-29	44	43.14
	30-39	24	23.53
	40-49	20	19.61
	50-59	9	8.82
	60 and above	5	4.90
Gender	Male	53	51.96
	Female	49	48.04
Educational Level	Bachelor	84	82.35
	Masteral	9	8.82
	Doctoral	9	8.82
Monthly Income	Below SR10,000	42	41.18
	SR11,000-20,000	35	34.31
	SR21,000-30,000	16	15.69
	SR31,000-40,000	7	6.86
	SR41,000-50,000	2	1.96
Number of Children	1 - 3	59	57.84
	4 - 6	36	35.29
	7 - 9	6	5.88
	10 above	1	0.98

The table 1 presents the demographic profile of the caregivers who have children with Autism Spectrum Disorder. The table shows that majority of the caregiver were age ranging from 19 to 29 years old. This suggests that nearly half of the respondents were younger populations or early adulthood caregivers of children with autism while only 5 percent were old adulthood caregivers. Evidently, qualitative research explains how the caregivers struggle on both objective and subjective problems of the child with Autism Spectrum Disorder (ASD). These caregivers were aged 30-45 years old which relates to the present study. [8] As to gender, more than half or 52 percent of the caregivers were male compared to nearly half or 48 percent were female caregivers. The family-caregiving is widely a women's job, although changes in socio-demographics is inevitable, male is currently increasing to perform the role of caregivers [9]. Female are the caregivers for most cases at middle-aged. This study found that more male taking the caregivers' role, it relates with other study concluded that large proportion of male taking its role as caregiver. It is increasingly where members of the family take the role. The 82 percent of them finished bachelor's degree [10]. This agreed in the previous study which found that majority of the caregivers of children with ASD had bachelor's degree (61.2%) while only 2% who are Ph.D. holder [11]. Like the present study which constituted 9% of the doctoral degree, it is also the lowest among the three qualification level stated. Meanwhile, the nearly half or 41 percent of the caregivers have a monthly income of below 10,000SR as one-third were having a monthly income of SR11,000 to SR20,000 while only 2 percent earned SR41,000 to SR50,000 monthly. This infers to other study about caregiver burden. Their study reveals that among all caregivers 61 percent were employed (part-time/fulltime) while the remaining percentage was unemployed [12]. Also, they found that 30% of the caregivers had low economic status of R3000 (SR600) as the 23% were having an income more than R15000 (SR3005). As to the number of children, more than half of the caregivers have 1 to 3 children in the family compared to only 1 percent of caregivers with more than 10 children.

Table 2: Demographic characteristics of children with ASD

Variables	Characteristics	Frequency	Percentage
Age	1 - 10	71	69.61
	11 - 20	21	20.59
	21 - 30	4	3.92
	31 - 40	5	4.90
	41 - 50	1	0.98
Gender	Male	69	67.65
	Female	33	32.35

The above table presents the demographic characteristics of children with Autism Spectrum Disorder. The table shows the ASD patients' age and gender. Most of their age range from 1 to 10 years old. These composed of two-thirds of the ASD patients where the caregivers taking care of. This means that at this age range (1 to 10 years old), they were diagnosed early by the specialist. According to the National Survey of Children's Health in the United States, the child with autism has an averages age diagnosis of 5 years. The children under low economic status are diagnosed at 4.7 years while high economic status is at 5.2 years. This survey was done from 2016 to 2019. However, the CDC estimates for children at 8 y/o across several autism networks [13].

Majority of the ASD children were male as the results revealed two-third or 68 percent as female were only 32 percent. Similarly, the Center for Disease Control and Prevention revealed that about four in one hundred boys and one in one hundred girls have autism. They revealed that males are approximately 4 times higher to be diagnosed with autism as compared to female [14]. Consistently more boys than girls were diagnosed with Autism Spectrum Disorder. She cited that in a 54 prevalence studies after a comprehensive analysis found 4.2 boys diagnosed for every 1 girl [15]. Correspondingly, there are several reasons why more males were diagnosed with ASD compared to female. Genetics is one of the reasons that males are commonly affected by the ASD. The social bias as more boys were tested than girls that resulted to greater prevalence rates. She added that girls have higher number of harmful individual and sequence variations compared to boys. Lastly, the male has less genetic mutations and genetically fragile than female [16].

Table 3: Level of severity of patient with autism spectrum disorder

Variable	Level	Frequency	Percentage
Severity ASD	Require support	53	51.96
	Require substantial support	22	21.57
	Require very substantial support	27	26.47

Table 3 illustrates the level of severity of patients with Autism Spectrum Disorder. These severity levels were categorized into ASD patients which require support, require substantial support, and require very substantial support. As to the results, it reveals that half of the children or 52 percent require support, followed by 26 percent needing a very substantial support, and 22 percent require substantial support. Although there are more children with ASD require support, several tests can be performed to determine the presence of autism. Some specialist to diagnose ASD namely: developmental pediatrician, developmental psychologist and occupation/speech-language pathologist which assess the cognitive and language capacities including other life skills. [17] Officially, the Diagnostic and Statistical Manual of Mental Disorders (DSM-5) can be used to diagnose Autism Spectrum Disorder. Furthermore, studies have shown that more of the cases of ASD come under profound category. Profound autism category is having an intelligence quotient of below 50 with minimal to non-verbal kids. Children with profound autism need daily assistance with their life skills such as eating, bathing and dressing [18]. The prevalence rate of profound autism is 5 in every 1000 for the year 2016 that increased to 14 in every 1000 in milder autism [19].

Table 4: Challenges of caregivers who have children with autism spectrum disorder

Physical Aspect	Weighted Mean	Qualitative Description
I experience to have		
Having common cold and cough	3.49	Strongly Agree
Has experience chest pain	3.26	Strongly Agree
Having trouble with communication/language	3.31	Strongly Agree
Having sleeping disturbances	3.24	Agree
Lack of taking care for oneself	3.12	Agree
Average Weighted Mean	3.284	Strongly Agree
Mental Aspect		
I experience to have		
Little or no interest in life	3.23	Agree
Emotional dilemma	3.26	Strongly Agree
Psychological distress	3.23	Agree
Depression and/or anxiety	3.17	Agree
Lack of expressing my own feelings	3.34	Strongly Agree
Average Weighted Mean	3.246	Agree

Social Aspect		
I experience to have		
Trouble relating to others	2.38	Disagree
Less freedom to participate in the community	2.65	Agree
Inaccessible to education about ASD	2.57	Agree
Lack of comprehensive policy and guideline to address children's need	2.52	Agree
Hide the child at home to protect from others	2.48	Disagree
Average Weighted Mean	2.520	Agree
Financial Aspect		
I experience to have		
Difficulty accessing the healthcare services	2.36	Disagree
Inadequate support from community agencies	2.46	Disagree
Inaccessible to cost-sharing medical services	2.48	Disagree
No free crucial outpatient services	2.85	Agree
No available occupational therapist or skilled teacher	2.78	Agree
Average Weighted Mean	2.586	Agree
Total	2.909	Agree

Challenges of the caregivers who have children with Autism Spectrum Disorder are presented in Table 4. It can be seen on the results that the caregivers agreed on the physical, mental, social and financial aspect as their challenges facing them with total average of 2.909. As to physical aspects, the caregivers strongly agreed that they experience common cold and cough with a weighted mean of 3.49. They agreed, however, that they experienced sleep disturbance (3.24) and lack of taking care of oneself (3.12). The mothers with autism impact their whole life as a mother. Having this added to their responsibility and contribute to parent-related stress [20]. One challenge is the physical exhaustion because the caregiver feels it as physically demanding specifically when the ASD children have difficulty of falling asleep affect the caregivers sleeping pattern which can lead to chronic fatigue [21].

For mental challenges, most of them experienced lack of expressing oneself (3.34) and even emotional dilemma (3.26). Caregivers believed they have fault relating to their child diagnosis. The mother concern often thinks if the child with ASD can live independent. This is an emotional stress to parenting role and this negative emotion constantly results to frustrations, anxiety and feeling of guilt [20]. In terms of social aspects, the caregivers believed that they did not experienced troubling relating to others (2.38) and hiding their children to protect from other people (2.48). Caregivers may experience anger reaction and feel depressed. One of the research participant narrated that "every time she attended gatherings, people used to ask her about her child condition". In sum, the caregivers encountered emotional burden when raising their children with Autism Spectrum Disorder (ASD) [22].

Lastly, the financial aspect revealed that caregivers agreed that they did not experienced of having no free crucial outpatient services (2.85) and no available occupational therapist or skilled teacher (2.78). The caregivers have an additional cost for taking care of their child which affects the families' financial capability to support their children. Looking for social support to lessen the financial impact to the family is always considered by the caregivers. Previous research underscored that the financial cost of having child with ASD is higher than raising a normal child. They added that child with ASD incurred 14% loss in the household income [23].

Table 5: Coping strategies of caregivers who have children with Autism Spectrum Disorder

Physical Aspect	Weighted Mean	Qualitative Description
Taking care of oneself through healthy lifestyle	3.12	Agree
Taking breaks and some rest to refresh oneself	3.23	Agree
Prioritizing own self by practicing mindfulness	3.26	Strongly Agree
Learning about own self needs	3.06	Agree
Focus on what you can control to reduce stress	3.16	Agree
Average Weighted Mean	3.166	Agree
Mental Aspect		
Maintaining a positive and proactive mindset	3.32	Strongly Agree
Accepting the child sensory sensitivities and routine	3.14	Agree
Focusing on the task of interest for long period of time	3.16	Agree
Encouraging child interest and strength to build self-esteem	3.20	Agree
Embrace the strength and challenges for a sense of purpose	3.25	Agree
Average Weighted Mean	3.214	Agree
Social Aspect		
Strengthening one's spiritual to positivity, hope and prayer	3.40	Strongly Agree
Adjusting communication style to better fits the child's needs	3.15	Agree
Connecting with other parenting who have children with ASD	3.15	Agree
Providing an emphatic and understanding ear	3.28	Strongly Agree
Attending support groups, joining online forums, and participating community events	3.24	Agree
Average Weighted Mean	3.244	Agree
Financial Aspect		
Seeking support from therapist that will help their child	3.21	Agree
Explore solutions by seeking government and non-government support	3.35	Strongly Agree

Gaining support network on the task they will need to cover	3.18	Agree
Budgeting daily expenses to meet the demands of care needs	3.13	Agree
Looking for alternative therapy/treatment for autistic child	3.12	Agree
Average Weighted Mean	3.198	Agree
Total	3.206	Agree

The table 5 represents the coping strategies of caregivers who have children with Autism Spectrum Disorder. It can be observed on the results that the caregivers agreed on the coping strategies in the areas of physical, mental, social and financial aspects. It has a total weighted mean of 3.206. As to physical coping strategies, majority of the caregivers prioritize themselves by practicing mindfulness with a weighted mean of 3.26 while learning their own needs got the lowest mean of 3.06. This suggests that caregivers need to take breaks in order to take the time to appreciate every moment. Mindfulness helps to create space to think, breathe, and time for oneself [24].

For mental coping strategies, most of the caregivers practice a positive and proactive mindset having a weighted mean of 3.32. They believed that it can be helpful psychologically while caring for their children with autism. Another coping mentally is the embracing the strength and challenges for a sense of purpose with weighted mean of 3.25. The sense of purpose contributes to one's individual well-being. Embracing strength can reduce the burden of trauma after adversity making a healthy functioning [25]. In terms of social coping strategies, the caregivers strongly agreed that it would be beneficial for them if they strengthen their spirituality to positivity, hope and prayer and providing an emphatic and understanding ear. They got a weighted mean of 3.40 and 3.28 respectively. This means caregivers need to connect with other people aside from the support system they have. Socializing with other people provide a sense of community as people understand their situations relating to their experiences. Emphatic ear is a crucial to individuals who have certain levels of anxiety. This helps the caregivers to reduce levels of worriness and concerns [26].

Moreover, the financial burden is inevitable especially for those with low income. The results show that caregivers seek support from therapist to help their child and exploring solutions by seeking government and non-government support. These got a weighted mean of 3.21 and 3.35 respectively. The caregivers may expect the existence of financial strain due to the needs of the children with ASD. It contributes to the family's' disruption on their basic necessities or even worst of leaving the job to take care of their children. Majority of the mothers can give best opportunities for success to their children but appears to be difficult for those mothers from lower household income.

Table 6: Significant differences on the Physical challenges perceived by the caregivers as to demographic profile

Variable/s	Characteristics	Mean	F value	Critical value	Interpretation	Results
Age	19-29	3.24	1.6820	0.5633	Reject the null hypothesis	Significant
	30-39	3.23				
	40-49	3.13				
	50-59	2.67				
	60 and above	2.56				
Gender	Male	3.376	2.3374	0.3736	Reject the null hypothesis	Highly significant
	Female	3.182				
Educational Level	Bachelor	3.324	1.5762	0.3182	Reject the null hypothesis	Significant
	Masteral	3.222				
	Doctoral	2.980				
Monthly Income	Below SR10,000	3.238	2.7524	0.0446	Reject the null hypothesis	Highly significant
	SR11,000-20,000	3.496				
	SR21,000-30,000	3.064				
	SR31,000-40,000	3.142				
	SR41,000-50,000	2.800				
Number of Children	1 - 3	3.17	1.5901	0.4459	Reject the null hypothesis	Significant
	4 - 6	3.22				
	7 - 9	3.12				
	10 above	2.56				

The table 6 contains the significant differences on the physical challenges perceived by the caregivers as to demographic profile. The data revealed that F value is greater than the critical value (FV > CV) resulting to reject the null hypothesis, thus, significant. This means that the caregivers' encountered physical challenges differ significantly. The results illustrate the differences of the child caregivers on the physical challenges they perceived in providing nursing care to their children with Autism Spectrum Disorder. Apparently, the male and female have a highly significant difference in the physical challenges they perceived. These physical challenges have a negative impact on their daily lives. Raising child with ASD result to lack of time for self-care. It affects the parents on how they manage their home. The parents have limited time for socializing or even performing their daily exercise [27].

Another is the monthly income which shows highly significant difference on physical challenges. This suggests that the family with lower income have different perception on the physical challenges in taking care of their child with ASD as compared with the family with high income levels. It is physically challenging for the caregiver who belongs to the low income status since raising a child with ASD is more financial cost than the normal. Moreover, raising a child with autism can drain energy causing fatigability and social withdrawal. It is evident that the burnout experience is unavoidable. This can be manifested to caregiver's pessimistic outlook, low mood and irritability [28].

Table 7: Significant differences on the mental challenges perceived by the caregivers as to demographic profile

Variable/s	Characteristics	Mean	F value	Critical value	Interpretation	Results
Age	19-29	3.44	2.6219	0.2760	Reject the null hypothesis	Highly Significant
	30-39	3.56				
	40-49	2.77				
	50-59	2.18				
	60 and above	2.18				
Gender	Male	3.418	6.927	0.1396	Reject the null hypothesis	Highly Significant
	Female	3.056				
Educational Level	Bachelor	3.278	1.9881	0.315	Reject the null hypothesis	Significant
	Masteral	3.332				
	Doctoral	2.846				
Monthly Income	Below SR10,000	3.074	1.0248	0.4148	Reject the null hypothesis	Significant
	SR11,000-20,000	3.048				
	SR21,000-30,000	3.062				
	SR31,000-40,000	3.070				
	SR41,000-50,000	3.368				
Number of Children	1 - 3	3.23	1.1802	0.6302	Reject the null hypothesis	Significant
	4 - 6	3.21				
	7 - 9	2.98				
	10 above	2.73				

The table 7 provides the differences of the child caregivers' mental challenges being perceived. It can be seen on the results that all variables presents different perception with regards to mental challenges. These shows that the f value is greater than the critical value (FV > CV), resulting to rejection of hypothesis. Therefore, a significant difference can be interpreted on the table. Among all the variables, two of them show how highly significant they are. For age, the five ranges of age of caregivers represent differences on the level of mental challenges they have. Also, the male and female has a significant difference on the mental challenges. Thus, the age and gender has implications on the caregivers' perception on the mental challenges. This likely proved that middle-aged representing the higher means have different ways of handling mental challenges. Older adults were likely used emotion-focused rather than younger problem-focused. The middle aged could focus on positive emotion coping strategies to strengthen their lives and manage their problem [29]. Truly, the parents experience a significant decrease in their quality of life as they manage the needs of their children with ASD. Studies have shown that parental stress related to Child with ASD, mental distress and declining quality of life were the impact of having autistic child to their caregivers. Their studies have shown a low psychological health on the part of the mother and a high mental stress levels than fathers [30].

Table 8: Significant differences on the social challenges perceived by the caregivers as to demographic profile

Variable/s	Characteristics	Mean	F value	Critical value	Interpretation	Results
Age	19-29	3.36	1.0887	0.4556	Reject the null hypothesis	Significant
	30-39	3.30				
	40-49	2.97				
	50-59	2.38				
	60 and above	2.30				
Gender	Male	2.608	0.8668	0.4388	Reject the null hypothesis	Significant
	Female	2.424				
Educational Level	Bachelor	2.564	0.9266	0.4954	Reject the null hypothesis	Significant
	Masteral	2.200				
	Doctoral	2.422				
Monthly Income	Below SR10,000	2.392	1.4650	0.2796	Reject the null hypothesis	Significant
	SR11,000-20,000	2.754				
	SR21,000-30,000	2.340				
	SR31,000-40,000	2.742				
	SR41,000-50,000	1.800				
Number of Children	1 - 3	3.41	1.0349	0.3372	Reject the null hypothesis	Significant
	4 - 6	3.79				
	7 - 9	3.09				
	10 above	2.14				

The table 8 contains the significant differences on the social challenges perceived by the caregivers as to demographic profile. The results mean that, in terms of social challenges, the caregivers have differences on how they perceived social challenges while taking care of their child with ASD. Based on the data, since the f value is greater than the critical value, the hypotheses are rejected resulting to significant. The results also show that, although gender and educational level were statistically significant, the results have narrowed difference on how they perceived the social challenges. The data shown reveals that various age range and monthly income have different means of facing the social challenges. Communication as a way of socializing and connecting are probably common challenges the carer were facing. It connotes stress and anxiety on the part of the parent on what others may feel or their reactions. Yet, the reactions of the friends even the relatives of the family represent the social attributes to the social challenges of the caregiver. Societal unawareness as the parents feel judged and isolated due to the ASD child condition. This is the potential causes impacting the parents in the society. It's not unlikely that if the people were aware regarding Autism Spectrum Disorder (ASD), the stigma can be eradicated [31].

On the other hand, the caregivers of the autistic child may have changed their daily routine. Their social gatherings decreased as to trigger meltdown and stress. Even the changes in their menu can be simpler to suit the child needs rather than doing an adventurous recipe. As they feel socially isolated, caregivers need to tone down to fulfill life's excitement [28].

Table 9: Significant differences on the financial challenges perceived by the caregivers as to demographic profile

Variable/s	Characteristics	Mean	F value	Critical value	Interpretation	Results
Age	19-29	3.52	1.8896	0.5612	Reject the null hypothesis	Significant
	30-39	3.34				
	40-49	3.18				
	50-59	3.21				
	60 and above	3.13				
Gender	Male	2.674	0.8396	0.4476	Reject the null hypothesis	Significant
	Female	2.498				
Educational Level	Bachelor	2.644	1.1894	0.058	Reject the null hypothesis	Significant
	Masteral	2.222				
	Doctoral	2.422				
Monthly Income	Below SR10,000	2.562	1.8838	0.2266	Reject the null hypothesis	Significant
	SR11,000-20,000	2.842				
	SR21,000-30,000	2.202				
	SR31,000-40,000	2.542				
	SR41,000-50,000	2.000				
Number of Children	1 - 3	3.26	0.9233	0.3780	Reject the null hypothesis	Significant
	4 - 6	3.21				
	7 - 9	3.30				
	10 above	3.23				

The above table shows the differences on the financial challenges perceived by the caregivers as to demographic profile. Based on the table, the f value is greater than the critical value (FV>CV) resulting to rejection of the hypothesis and interpreted as significant. It can be seen that the results on the gender and the number of children is not far greater, making these variables having lesser differences on what they perceived in the financial challenges. The results reveal that age and monthly income is a factor in facing the financial challenges of the caregivers. The older adults are more susceptible investment decisions as compared to younger or middles adults in financial decision-making. This entails that various stage of development, parents become more susceptible to financial constrain due to the needs of the child with ASD.

Meanwhile, the higher income household can fully support the needs than the low income household in caring the ASD children. Financial challenges of raising children with ASD. She reported that families with ASD children experience high poverty levels, and more material and medical care expenses. She added that more than 50% of the families with ASD are within low income families. The families considered low-income household suffers vulnerability in medical care expenses, decreased family monthly earnings as well as withdrawal from services and support [32].

Table 10: Significant differences on the physical coping strategies perceived by the caregivers as to ASD severity

Variable/s	Characteristics	Mean	F value	Critical value	Interpretation	Results
ASD	Requires support	3.14	2.1694	0.165	Reject the null hypothesi	Significant
Severity	Requires substantial support	3.20				
Levels	Requires very substantial support	3.186				

The table above provides the significant differences on the physical coping strategies as perceived by the caregivers. Based on the results, the f value is greater than the critical value (2.1694 > 0.165) leading to rejecting the null hypotheses. This means there is a statistically significant difference on the physical coping strategies as perceived by the caregivers. Looking on the mean, the level on ASD that requires substantial support agreed on the physical coping strategies they implemented. These also suggest that ASD severity levels implement coping strategies differ significantly.

Table 11: Significant differences on the mental coping strategies perceived by the caregivers as to ASD severity

Variable/s	Characteristics	Mean	F value	Critical value	Interpretation	Results
ASD Severity Levels	Requires support	3.318	1.792	0.1968	Reject the null hypothesis	Significant
	Requires substantial support	3.200				
	Requires very substantial support	3.014				

Table 11 contains the differences on the mental strategies of the caregivers taking care of child with ASD. It shows that the three severity levels have different perception on the mental coping strategies. Based on the table, the F value is greater than the critical value (1.792>0.1968) which reject the null hypothesis resulting to statistically significant. This means that every ASD severity levels have different perception on mental coping strategies by the caregivers. This also reveals that caregivers taking care of children that require support strongly agreed on the mental coping strategies.

Table 12: Significant differences on the social coping strategies perceived by the caregivers as to ASD severity

Variable/s	Characteristics	Mean	F value	Critical value	Interpretation	Results
ASD Severity Levels	Requires support	3.302	1.1346	0.3464	Reject the null hypothesis	Significant
	Requires substantial support	3.338				
	Requires very substantial support	3.052				

The above table presents the significant differences on the social coping strategies perceived by the caregivers as to ASD severity. Based on the results, there is a statistical significant on the social coping strategies as perceived by the caregivers. Since the F value is greater than the critical value (1.1346 > 0.3464), the null hypothesis is rejected with a significant result. This shows that while the require support and require substantial support strongly agreed on the social coping mechanisms, the severity levels which require very substantial support has different perception on social coping mechanism. These maybe due to the severity of ASD as compared to other levels.

Table 13: Significant differences on the financial coping strategies perceived by the caregivers as to ASD severity

Variable/s	Characteristics	Mean	F value	Critical value	Interpretation	Results
ASD Severity Levels	Requires support	3.238	0.8972	0.4854	Reject the null hypothesis	Significant
	Requires substantial support	3.280				
	Requires very substantial support	3.044				

Table 13 represents the differences of the ASD caregivers under levels of ASD severity in relation to the financial coping strategies. This means that the caregivers requiring a very substantial support has lower mean compared with the other two levels. As to the statistical treatment, it can be observed that the F value is greater than the critical value (0.8972 > 0.4854), this resulting to rejection of the null hypothesis. Therefore, it is significant. The financial need varies on each severity levels. The needs and support of the caregivers depend on the ASD severity levels.

Conclusion

This study used the responses of the caregivers of children with Autism Spectrum Disorder to investigate their challenges and coping strategies. The results suggest that Autism Spectrum Disorder is more prevalent in male than female; more children with ASD were 1 to 10 years old and require support like profound autism category. The results of this study have an important implication to the health sector in order to enlighten and become aware about ASD.

In the light of the actual research findings, it was concluded that physical challenges were apparently encountered by the caregivers as compared to the mental challenges. Strengthening one’s spiritual to positivity, hope and prayer is the main coping strategies performed by the caregivers with ASD children. Five of the socio-demographics were statistically significant to challenges and coping strategies.

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