Psychological Stress of Parenting a Child with Neurodevelopmental Disorders

Hani Mueen Razzaq
Mental Health Nursing Department, College of Nursing, University of Babylon, Babylon, Iraq

Abstract
Psychological stress causes and exacerbates a wide variety of health conditions. Reacting to chronic stress can impair individuals ability to succeed in life aspects. the descriptive study is conduct to assess psychological stress among 119 parents of children with neurodevelopmental disorders.The Perceived Stress Questionnaire (PSQ) is used to measure the stress level of parentscaring for children with neurodevelopmental disorders. Most of parents (72.3%) had moderate level of psychological stress and the rest 27.7% had sever level of psychological stress. A significant inverse relationship between duration of child illness and the psychological stress of parents is found; parents of recently diagnosed children are at higher risk for psychological stress that others. Based on the findings of the current study, it is recommend that parents should find an appropriate coping method to managing their stress.
Keywords: Psychological stress, neurodevelopmental disorders

1. Introduction

Psychological stress is a specificconnection between the individual and the situation that is judged by the person as challenging or more than his or her properties and threatening his or her health(Gustems-Carnicer et al., 2019).The concept of stress in most of studies refers to the resulting state in an individual who has experienced various demands. Stress, therefore, has been defined as "a state of imbalance within a person, elicited by an actual or perceived disparity between environmental demands and the person's capacity to cope with these demands."(Allen et al., 2019).

Stress is not always negative; stress in the form of a challenge energizes individuals psychologically and physically, and motivates individuals to learn new skills and master their work. When a challenge is met, individuals feel relaxed and satisfied. This type of stress named as eustress. However, sometimes a challenge is turned into job demands that cannot be met. This is negative stress, or distress, which sets the stage for illness, injury, and job failure(Yasmin, Khalil, & Mazhar, 2020).The configuration of the stress process can be described as various stressful situations (or stressors) occur and are appraised by the individual depending on their degree of threat. Individuals are forced to cope with some manageable stressors; however, stressors that are unsuccessfully resolved lead to negative stress outcomes(Sicorello et al., 2021).

Most people develop a repertoire of personal responses that can be activated when stressful circumstances arise. This repertoire consists of responses which have been learned through socialization experiences and evolves over time as particular techniques work or fail to work to mediate stress(Weiss,2015).Stress has a powerful impact on various aspects of a life, including but not limited tomood, energy level, relationships, work performance, and stress. Stress also cause and exacerbate a wide variety of health conditions. Reacting to chronic stress can impair individuals ability to succeed in life aspects. Moreover, , stress can impact life and job performance in a variety of ways, including: difficulty making decisions, wanting to avoid or leave work, emotional swings, feelings of helplessness, and inefficiency(Epel et al., 2010).Unpleasant feelings draw people's attention to matters that are important to their well-being.However,when unpleasant emotions endure, individuals' abilities become dysfunctional (Diener& Biswas-Diener, 2005)

2. Methods and Materials

Study design and sampling plan

This study used a descriptive-correlational design on a simple random sampling method. Sample size was determined based on the 10% sample calculation strategy; since the number of total population is known. , by The study sample is recommended to be about 100 parents out of total population; therefore, a total of 119 parents included in this study.

Ethical consideration

Dissertation proposal was submitted to the Research Ethics Committee at the University of Babylon, College of Nursing. After the proposal was reviewed, the ethical approval was issued . Accordingly, the college approval was obtained to complete the process ofdata collection .

The researcher clarified all issues related to the research topic, procedures, and expected benefits for all participants before deciding to be a part of the study. Parents were also informed that taking a part of the study is voluntary. Confidentiality of parents' information was also taken into account through the use of anonymous questionnaires. Parents were also informed that they could withdraw their participation anytime during the study phases. Furthermore, all of the aforementioned steps are included in the

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informed consent form ,which participant had to put a check mark as an approval for participation .

Study instrument

After reviewing relevant studies, the Perceived Stress Questionnaire (PSQ) was used to measure the stress level of parentscaring for children with neurodevelopment disorders. The reliability of the scale (a Cronbach's Alpha value of 0.858). The scale validity index is (0.81).

Data collection

The process of gathering subjects' information from parents began by communicating with the selected centers,where children with neurodevelopment disorders are trained. A total number of119 fathers and mothers from three different province, AL-Najaf, Babylon, and Diwaniyah Provinces.

Data analysis

The Statistical Package for Social Sciences (SPSS-24) was used to analyze study data that were collected from parents of children , Descriptive statistics were used to describe parents'socio-demographic information, as well as describing perceived stress level.and Spearman Correlation analysis was used to measure the relationship between the psychological stress level of parent and their socio-demographic characteristics, as well as measuring the relationship between the psychological stress level of parent and children-related variables.

Results of the study

Table (1) : Socio-demographic variables of parents		
Gender (Pre-test)	**f**	**%**
Male	43	36.1
Female	76	63.9
Total	119	100.0
Gender (Post-test)	f	%
Male	41	36.3
Female	72	63.7
Total	113	100.0
Parents' Age Groups	f	%
21 - 26	13	10.9
27 - 32	37	31.1
33 - 38	32	26.9
39 - 44	21	17.6
45 - 50	14	11.8
Older Than 50 Years	2	1.7
Total	119	100.0
Mean Age: 35 years old		
Marital Status	f	%
Married	114	95.8
Divorce or separated	5	4.2
Total	119	100.0
Education Levels	f	%
Primary Education	17	14.2
Secondary School	34	28.6
University Education (Diploma or Bachelor)	57	47.9
Post-graduate (Master or PhD.)	11	9.2
Total	119	100.0
Occupation	f	%
Employed	55	46.2
Free Work	18	15.1
Not Working	46	38.7
Total	119	100.0
Monthly Income	f	%
Not Enough	15	12.6
Enough to Some Extent	61	51.3
Enough	43	36.1
Total	119	100.0

The majority of participants are female 63.9% and their mean age was 35 years old. Most of parents were living with their partners about 96%. According to their level of education 47.9% reported having diploma or bachelor degree and about 29% having secondary school education.About half of the study participant were employed 46.2% compared to 38.7% were

not working. Concerning their monthly income, the majority reported that their monthly income is ranged from enough to some extent 51.3% and not enough income 36.1%.

Table (2): Descriptive statistics of Child-related variables		
Age of Child	**f**	**%**
1 - 3 Years	4	3.4
4 - 6 Years	57	47.9
7 - 9 Years	46	38.7
10 Years and Older	12	10.1
Total	119	100.0
Mean age of children: 7 years old		
Diagnosis	f	%
Unidentified	4	3.4
Autism	96	80.7
Learning Disorder	1	.8
Speech Disorder	6	5.0
ADHD	12	10.1
Total	119	100.0
Duration of Illness	f	%
Less Than 3 Years	23	19.3
3 - 5 Years	54	45.4
6 - 8 Years	30	25.2
More than 8 Years	12	10.1
Total	119	100.0

Table 2 represents the descriptive statistics of children-related variables. Most of children are between 4 to 6 years old 47.9%(mean age 7 years old). Most of children were diagnosed withautism disorder 80.7%, and most of children have been diagnosed with their disorder about 3-5 years 45.4%.

Table (3): Descriptive statistics of Psychological stress levels of parents		
Levels of Psychological Stress	**f**	**%**
Moderate Psychological Stress	86	72.3
Severe Psychological Stress	33	27.7
Total	119	100.0

Most of parents (72.3%) had moderate level of psychological stress and the rest 27.7% had sever level of psychological stress.

Table (4): Relationship between psychological stress and sociodemographic variables			
Parents Demographic Variables	**Psychological Stress**		
	Correlation Coefficient	**Sig.(2-tailed)**	**N**
Gender	-0.029	.751	119
Age	0.067	.469	119
Marital Status	-0.057	.093	119
Education Levels	-0.155	.093	119
Occupation	0.201*	.028	119
Monthly Income	-0.183*	.047	119

A Spearman Correlation analysis was used to measure the relationshipbetween psychological stress of parent and their socio-demographic characteristics.The findings indicate that there is a significant relationship between psychological stress of parents and their occupation; parents who are not working show more severe psychological stress level than employed or parents with free work (r = . 201*, P = .028).Similarly, an inverse correlation was also found between monthly income and the psychological stress of parents; parents reported not enough income are more vulnerable than those with better income (r = -.183*, P = .047).

Discussions of the study

The participants in this quasi-experimental study were the parents of children who were diagnosed with neurodevelopmental problems. There were 119 persons who took part in the study's pre-testing phase, and 113 of those same people participated in the study's post-testing phase after using emotion-based tactics to better manage their psychological stress.

The majority of people who took part in the survey were female (63.9%), and the average age range for participants was 27 to 32 years old (31%). The vast majority of people who participated in the survey remained in their previous family relationships (95.8%), with the exception of a relatively small number of people who had divorced (4.2%). The majority of contributors had a job that provided them with a monthly salary (46.2%), and the educational level of these contributors ranged from diploma to bachelor's degree (74.9%).

Additionally, the type of disease and the number of years since it was diagnosed are shown. 47.9% of the

children were between the ages of 4 and 6 years old, making up the largest age group. The majority of parents have children diagnosed with autism spectrum disorder . Their duration of disease up until the start of the study ranged from three to five years (45.4%).

It is clear that the number of youngsters afflicted with autism spectrum disorders in various countries throughout the world is growing at an alarming rate. This is consistent with the findings of the following earlier research, such as the one published by Steinbrenner et al. in the year 2020, which stated that autism is currently one of the most well-known and often discussed human illnesses. Because of its rising incidence, there is a greater need for efficient educational and therapeutic services. In addition, a significant information that was revealed on March 30, 2022 indicated that autism, which is also known as autism spectrum disorder, is a broad set of conditions related to the development of the brain. This is the same truth that was reported.

Autism affects around one child out of every 100. Autism is frequently not diagnosed until much later in life, despite the fact that its symptoms can be recognized as early as early childhood. People with autism have a wide range of abilities and requirements, all of which might change over time. Some persons with autism are able to live independently, while others have severe difficulties and need constant care and support for the rest of their lives (McCarty, & Frye,2020).

The majority of parents, 72.3%, were found to be experiencing moderate levels of psychological stress, while the remaining 27.7% were found to be experiencing severe levels of psychological stress.

The findings suggested that parenting a child with a neurodevelopmental disorder increases the risk of psychological stress compared to other parents. It's possible that being a parent to a preschooler who has developmental impairments will put you under a great amount of stress.

Additionally, past research has shown that the degree of stress experienced by parents of preschool children who have developmental issues is significantly higher than that experienced by parents of preschool children who develop ordinarily (e.g. Baker et al., 2002, 2003,2007; Tomanik et al. 2004; Spratt et al. 2007). The challenges that parents go through are made even more difficult when their child displays emotional, behavioral, or communicative difficulties (Baker et al. 2003; Beck et al. 2004). Parents of children who have autism spectrum disorders face a wide variety of challenges such as these (ASD). The requirements of caring for a child who has autism spectrum disorder are exceptionally rigorous.

The findings of this study point to a significant relationship between factors related to parents' employment status and level of monthly income and their psychological stress (Table 4). The recent findings indicate that parents who are unemployed or not working and those with not enough income are at higher risk for psychological stress compared to parents who are able to provide basic requirements to their children as a result of having secured job (employed) and their income is enough. Also Previous research into the relationship between remote work and work-life stress provided some insights into potential issues for those who moved quickly to remote work, including the following: role stress and role overload from balancing work and family issues (Duxbury, Stevenson, &Higgins, 2018). Theories developed by Duxbury, Stevenson, & Higgins (2018) and by (Lim & Kim, 2014; Fan, Lam, & Moen, 2019), indicate that that women and men from lower social classes are frequently the most prone to stress because of the entrenched gendered expectations surrounding work and family life. This can lead to a proliferation of stress in both the workplace and the home (Fan, Lam, & Moen, 2019). It shouldn't come as a surprise that the quantitative, emotional, and mental demands of one's job are consistent with sources of burnout that are related to one's line of work (Peeters, et al, 2005).

3. Conclusion and Recommendations

Based on the findings of the current study, parents of children with neurodevelopmental disorders are vulnerable to different psychological health conditions as a result of being under unresolved stress. Therefore, it is recommended that emotion-focusedcoping methodsshould be demonstrated by those parents as appropriate ways to reduce their level of psychological stress.

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