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Stress and Coping Strategies in Parents of Children with Physical, Mental, and Hearing Disabilities in Jordan

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Abstract

This research aimed to investigate levels of stress in parents of children with disabilities in Jordan, and coping strategies they used to handle these stresses. An Arabic translation of Parental Stress Scale (Berry, & Jones, 1995) and Coping Strategies Inventory (Tobin, et al., 1989) were used on a sample of 134 parents of children with physical, mental, and hearing disabilities enrolled in diurnal special education centers. The results indicted high levels of stress experienced by parents of children with disabilities; Parents of children with physical disability tend to have the highest levels of stress, while parents of children with hearing impairment have the lowest levels of stress. The results also showed that engagement coping strategies were frequently more used in parents, with preference to use problem focused engagement strategies more than emotion focused engagement strategies. In the other hand, fathers of children with disabilities preferred to use engagement strategies more likely than mothers who preferred disengagement strategies. And finally, the results indicated high positive and significant correlation and acceptable predictable relation between levels of stress and coping strategies.

Keywords: parental stress, coping strategies, raising child with disability, physical disability, mental retardation, hearing impairment

1. Introduction

Having child with disability is a major event that negatively affects families, and force families to re-evaluate its plans, goals, and relationships in light of restrictions and limitations associated with child's disability, and resultant stresses in parents, and their efficiency in coping with these stresses. During re-evaluation process, families tend to utilize available support resources, or look for alternative ones, as an attempt to adopt strategies to regain equilibrium between family's resources and disability demands to cope with stresses associated with the child's disability (Woodman, & Hauser, 2013). Knowing nature and levels of stresses faced by families of children with disabilities and efficiency of coping strategies they use, are crucial issues in family counseling programs, and should be main pillar in training programs for those parents, as they are more likely to face the developmental deficiencies and challenges in child with disability, (Glidden, 2012, pp 314).

1.1 Stresses and Coping Strategies

The term "Stress" refers to negative emotional experience accompanied by predictable physiological, cognitive, and behavioral changes, which lead to changes in perceiving the stressful situation and ability to deal with (Wang, Michaels, & Day, 2011). This definition implicates an individual perception of stress depending on personal explanation of the situation, i.e. stress in core arose from cognitive processes by individual to evaluate his/her personal potentials to determine whether they were sufficient to face the demands of stressful situation (Seymour, et al., 2013). According to (Hartley, et al., 2012) if an individual has enough potentials to cope with the stressful situation, we expect low levels of stress, if these potentials were less than needed, or individual believes that a lot of efforts should be presented to deal with this stressful situation, high levels of stress are more likely to be expected.

"Coping Strategies" refer to conscious efforts to adopt with/solve stressful situation (Glidden, &Natcher, 2009), they are practical active ways of responding to threatening situations. Coping strategies are divided for two major categories, (a) Problem-Focused Coping strategies which represent an attempt to do what an individual believes it might affect the circumstances that led to stressful situation, this include re-interpretation, re-evaluation and analysis of the stressful situation. And (b) Emotion-Focused Coping strategies which represent efforts to regulate emotions resulted from the stressful situation, this include feelings of incompetence of changing situation, anger, anxiety, hopelessness, discomfort and stress in general (Lazarus, & Folkman, 1984). According to (Picci, et al., 2015), past experiences, perceived social support, nature of stressful situation are examples of preference factors of adopting coping strategies. (Lopes, et al., 2008) also indicated that the nature of stressful situation may determine kind of strategies used to cope with, i.e. individuals tend to use emotion-focused strategies in situations where they are incapable to provide direct efforts to handle these situations such as health problems, while they tend to use problem-focused strategies in situations where they can handle and control, such as family conflicts. (Pastor, et al., 2009) in the other hand, summarized this by declaring that in stressful situations where an individual is able to execute productive actions to handle these situations; it's preferred to use

problem-focused strategies, whereas emotion-focused strategies are preferred in stressful situations where individuals are incapable to handle, and forced to accept these situations as they are.

1.2 Disabilities in Childhood

Disabilities in early childhood have negative effects in child and family due to deep consequences in developmental progress of the child, these disabilities have wide range of effects on all developmental domains of the child's and family's life (Bruns, &Foerster, 2011).

For the purpose of current study, three categories of disabilities were explored; physical disabilities as an example of physical and health impairments, mental retardation as an example of mental and cognitive disabilities, and hearing impairment as an example of sensory and communication disorders.

In addition to well known negative effects of these disabilities on the development of the child such as motor development, inability to perform in educational settings, and inability to communicate respectively; they also have effects in other area of development such as behavioral, social, and emotional development, academic achievement, independent living skills, and other non-developmental effects such as the need of medical and rehabilitation services, and the financial demands of such services, and here, we might say that the expected stresses in families of children with disabilities would be in similar levels of severity of these disabilities (Gallagher, et al., 2008).

1.3 Raising Children with Disabilities and Resultant Stress

Raising a child put parents in need to have ongoing changes in their life style and arrangements to face constant changes with child growth, if this the case in parents of non-disabled children, this need would be doubled for parents of children with disabilities. Increasing demands of raising child with disability with all the expected developmental and functional deficiencies, put families and parents in particular in confrontation with resultant stresses, (Woodman, & Hauser, 2013). The negative psychological effects of having a child with disability emerged in the results of many studies such as (Picci, et al., 2015; Woodman, & Hauser, 2013; Wang, Michaels, & Day, 2011, Dukmak, 2009) which all indicated low self-esteem, and high levels of stress and depression in families of children with disability, especially when compared to families of non-disabled children, (Lopes, et al., 2008). (Mount & Dillon, 2014) described stresses experienced by parents of children with disability as unique type of stresses, as those parents expressed permanent feelings of crisis, and as a result, are facing daily challenges due to their inability to act or do any effort to handle developmental and behavioral challenges in their child. In their literature review (Wang, Michaels, & Day, 2011) referred to results of studies which indicated that parents particularly are facing much more challenges associated with having child with disability, these challenges affect all family members when parents spend time and efforts caring the child with disability less than expected which has negative effects on the child, or more than expected which also has negative effects on the child with disability's siblings.

In their longitudinal study (Hauser, et al., 2009) indicated that life well-being of parents of children with disability would be negatively affected, as they realize by time the everlasting dependency of the child, and feelings of isolation and rejection from society. (Wang, Michaels, & Day, 2011) indicated that negative attitudes of society members toward individuals with disabilities increases levels of stress in those individuals and their parents. (Dempsey, et al. 2008; and Gallagher, et al., 2008) also proposed that parents' perception about their capacity raising their child with disability act as a crucial role in levels of stress. (Woodman, & Hauser, 2013) also indicated that levels of stress in parents tend to increase alongside with child growing, as the gap between disabled and non-disabled children become more obvious. (Glidden, 2012, pp 311) indicated that lack of specialized professional support, negative stigma, and fear from future of the child are major determinants of stress in parents.

According to (Gallagher, &Whiteley, 2012), levels of stress in parents of children with disabilities are determined by:

1. Characteristics of the child with disability which include type and/or severe of disability, child's independency, age, and visibility of disability.
2. Parents and family characteristics such as social-economical level, personality traits, past experiences, age, education, career, income level, perceptions about disability, and beliefs about ability to affect the development of child.
3. Family structure such as demographic characteristics such as rank of the child with disability, siblings, and the presence of other disabilities in family.
4. Social factors such as attitudes in society toward disability, and availability of services to individuals with disability.

Despite the fact that both parents showed high levels of stress, (Wang, Michaels, & Day, 2011) indicated that mothers of children with disabilities showed higher levels of stress when compared to fathers, as mothers are primary care giver of the child. Fathers, in return, might provide care, but their efforts act as supportive role to mothers. These findings emerged in results of (Jones, et al., 2013) which showed that mental health and life well-being in fathers of autistic children are not negatively affected to the same degree as mothers, and (Benson, &Karlof, 2009) in which mothers of children with autism showed higher levels of depression and mood disorders than fathers, and (Sen, &Yurtsever, 2007) in which the findings indicated similar results for mothers and fathers of children with disabilities in general.

1.4 Coping Strategies of Raising Children with Disabilities

Burdens of caring a child with disabilities will increase levels of stress in parents, which lead them to look for, develop, and use strategies to handle these stresses. According to (Seymour, et al., 2013) the outcomes of using such strategies might be in behavioral appearance such as neglecting responsibilities at home and work, or cognitive appearance such as weakness in problem-solving or emotional appearance which includes negative feelings toward the child with disability. In this regard, (Woodman, & Hauser, 2013) referred to coping strategies as continuous change in cognitive and behavioral efforts by individual to handle the increasing

external and/or internal demands of caring the child with disability. According to (Picci, et al., 2015), parents of children with disabilities tend to use various strategies to cope stress such as, looking for support, avoidance strategies, self-blame, drug abuse, making jokes, reconstruction of stressful situation in positive manner, or denial. (Taanila, et al., 2012) referred to avoidance strategies and self-blame as coping strategies, while other parents tend to search for positive issues in caring the child with disability such as religious attitudes, which are considered as an important coping strategy in Jordan.

Variation in the use of coping strategies is correlated to many factors, (Woodman, & Hauser, 2013; Wang, Michaels, & Day, 2011) indicated that parents tend to use emotional-focused and avoidance strategies in early stages of diagnosing disability, and as the child grows, parents tend to use problem-focused strategies. This variation in coping strategies was found also between fathers and mothers, the results of (Seymour, et al., 2013; Hartley, et al., 2012; Glidden, &Natcher, 2009) indicated that mothers of children with disabilities were looking for social support and concerned more about emotions, while fathers, in return, tend to use avoidance and problem-focused strategies. Understanding strategies used by parents to cope with stress of caring child with disability is considered as a major component of psycho-social support programs, especially if we knew that if parents depend on negative strategies to cope with stress, levels of stress might be increased, in other words, different levels of stress in parents of children with disabilities means different strategies of coping they use, (Singer, et al., 2007).

In our litterateur review, a question raised with disagreement in the answer, concerning whether stresses resulting from caring child with disability differ according to type of disability (physical, mental, or hearing disability) or according to limitations and restrictions resultant from the disability regardless of its type. This question might be ambiguous in western cultures where adequate free educational and medical services are provided for individuals with disabilities, and families of those individuals are sometimes supported financially, but in Jordan as an eastern growing country, families are not supported financially, and they have to cover fees of educational and medical services for their children with disability. The answer of such question has an important role in providing counseling services and coping strategies training for those parents.

1.5 Significance of the Study

Parents of children with disabilities experience high levels of stress, which put them in need to use various strategies to cope. Many studies examined the primary role of coping strategies used by parents to handle these stresses, but results of these studies did not provide enough evidence about efficiency of these strategies in reducing levels of stress in light of disability's type, or reasons in which parents prefer specific coping strategy but not other. One may suggests that type of disability and related restrictions and limitations in child and family life, parents' characteristics, and cultural differences may interfere with their preference of strategies they used to cope.

What we aimed from implementing this study was to identify levels of stress in parents of children with physical, mental and hearing disabilities, and preferred coping strategies used

by those parents to handle these stresses, and reasons for this preference in light of parents' gender and disability's type. This might give us insights about efficacy of coping strategies in reducing levels of stress in parents of children with disabilities, these insights would be a major contribution to counseling services provided to those parents.

1.6 Study Objectives

The aim of this study was to identify levels of stress in parents of children with physical, mental, and hearing disabilities, and strategies they use to cope. In order to achieve these objectives, Parental Stress Scale and short form of Coping Strategies Inventory were implemented to answer the following questions:

1. What are levels of stress experienced by parents of children with disabilities?
2. Do levels of stress in parents of children with disabilities differ according to parents' gender and type of child's disability?
3. What are the coping strategies used by parents of children with disabilities?
4. Do coping strategies used by parents of children with disabilities differ according to parents' gender and type child's disability?
5. Can levels of stress in parents of child with disabilitiy predict coping strategies they use?

1.7 Definition of Terms

1. **Stress**: unpleasant conscious emotional experience perceived by an individual when a state of imbalance raise between demands and resources which restrict individual from achieving expected tasks, and requires to use individual's capabilities and resources to handle this situation, and to have major changes in life style, which may lead to feelings of anxiety, depression, anger, helplessness, sadness, and fatigue. For the purpose of the current study, levels of stress are expressed by score obtained on Parental Stress Scale.
2. **Coping Strategies:** group of efforts or cognitive and behavioral activities an individual uses to handle stressful situation in order to reduce internal and external demands associated with this situation, in an attempt to re-gain state of psychological equilibrium individual used to live before. For the purpose of the current study, coping strategies are expressed by score obtained on Coping Strategies Inventory.
3. **Physical Disability:** state of permanent physical dysfunction due to neural, muscular, skeletal, or chronic disease, resulting inability to use body in normal way to complete expected tasks. This state might be accompanied with other mental or sensory disorders which require the need of special education services. For the purpose of the current study, physical disability refers to children with physical challenges whom have no other accompanied mental or sensory disabilities.
4. **Mental Retardation:** a permanent state of low functional mental performance

resulting deficiency in individual's ability to learn, accompanied with a group of maladaptive behaviors, and appears in early developmental stages which require the need of special education services. For the purpose of the current study, mental retardation refers to children with mild and moderate mental disability whom have no other accompanied physical or sensory disabilities.

5. **Hearing Impairment:** a state of permanent disorders which prevent the auditory system from functions in normal way, it includes hearing loss and deafness, but in both cases requires individual to use hearing aids and/or to communicate through alternative means as sign language. This state usually is accompanied with disorders in language, and put individual in need to special education services. For the purpose of the current study, hearing impairment refers to children with hearing loss and deafness whom have no accompanied other physical or mental disabilities.

1.8 Study Limitations

The results of current study are restricted with following limitations:

1. Participants were parents of children with physical, mental, and hearing disabilities enrolled in special education centers, therefore, results may be generalized in context of sample only.
2. Instruments of study were implemented during 26/4/2015 – 21/5/2015 on sample of parents of children with disabilities in (Al-Hussein Society for the Habilitation and Rehabilitation of the Physically Challenged) for children with physical disabilities, and (Nazik Al-Hariri Welfare Center for Special Education) for children with mental retardation, and (The Holy Land Institute for Deaf) for children with hearing impairment.
3. Methodological limitations: design of the current study represents correlational explanations not causational relationships for levels of stress and coping strategies.

2. Methodology

2.1 Participants

The sample was parents of children with physical, mental and hearing disabilities enrolled in special education centers. A total of 300 scales packages were distributed and only 134 packages were completed and returned (40, 36, 58) respectively, with an overall response rate of 44.7%, age of those parents was 22-59 (M = 44.1, SD = 8.48 years), those parents participated on voluntary and anonymous base, the demographics of sample shown in table 1.

Table 1. Demographics of Participants

Disability	Gender	n	% within the disability	% within the sample
Physical	Male	21	52.5	15.7
	female	19	47.5	14.2
	Total	40	29.9	
Mental	Male	11	30.5	8.2
	female	25	69.5	18.7
	Total	36	26.9	
Hearing	Male	29	50	21.6
	female	29	50	21.6
	Total	58	43.2	
Total		134		100

2.2 Instrumentation

2.2.1 Parental Stress Scale (Berry, & Jones, 1995)

A self rating scale consisted of 18-items representing positive and negative experiences parents hold toward caring their children using 5-piont Likert scale from 0 (strongly disagree) to 5 (strongly agree). In responding procedures, respondent is asked to read each item and check the degree in which he/she believes it apply to him/her (total degree 18 to 90); high degree represents high levels of stress. The aim of using this scale is to recognize stresses experienced by parents as care providers.

2.2.2 Checking Validity and Reliability of Instrument

For the purpose of current study, the scale was translated to Arabic, a group of 11 professors were consulted as referees for content validity; high agreement was achieved for translated version. Internal consistency was extracted, correlations for each item with total degree on scale ranged from 0.52 to 0.79, average inter-item correlation was 0.68 (Cronbach's $\alpha = 0.81$). These indicators of reliability and validity coefficients were considered satisfactory for using the scale for the current study.

2.2.3 Coping Strategies Inventory (Tobin, et al., 1989)

A short form inventory consisted of 32-items representing ways individual cope with stress, most items were adapted from "Ways of Coping" questionnaire (Lazarus, &Folkman, 1984). In responding procedures, respondent is asked to think in stressful situation and check how much he/she used this way to respond to this situation using 5-piont Likert scale from 0 (not at all) to 5 (very much). Responses to the inventory represent three levels of dimensions, the first level include 8 dimensions represented by the items as follows: Problem Solving (1, 9, 17, 25), Cognitive Restructuring (2, 10, 18, 26), Express Emotions (3, 11, 19, 27), Social Contact (4, 12, 20, 28), Problem Avoidance (5, 13, 21, 29), Wishful Thinking (6, 14, 22, 30), Self Criticism (7, 15, 23, 31), and Social Withdrawal (8, 16, 24, 32). The second level of

dimensions include merging two dimensions from the first level as follows: Problem Focused Engagement (Problem Solving + Cognitive Restructuring), Emotion Focused Engagement (Express Emotions + Social Contact), Problem Focused Disengagement (Problem Avoidance + Wishful Thinking), and Emotion Focused Disengagement (Self Criticism + Social Withdrawal). The third level of dimensions includes merging two dimensions of the second level as follows: Engagement (Problem Focused Engagement + Emotion Focused Engagement) and Disengagement (Problem Focused Disengagement + Emotion Focused Disengagement). For the purpose of the current study only dimensions in the second and third levels were included in the statistical analysis.

2.2.4 Checking Validity and Reliability of Instrument

For the purpose of current study, the inventory was translated to Arabic, a group of 11 professors were consulted as referees for content validity; a good agreement was achieved for translated version. Internal consistency was extracted, Cronbach's Alpha for dimensions in the second level were as follows: Problem Focused Engagement (a = 0.80), Emotion Focused Engagement (a = 0.83), Problem Focused Disengagement (a = 0.64), and Emotion Focused Disengagement (a = 0.87), and for the dimensions in the third level as follows: Engagement (a = 0.84) and for Disengagement (a = 0.83), and finally Cronbach's Alpha for the total inventory was (a = .85). These indicators of reliability and validity coefficients were considered satisfactory for using the inventory for the current study.

2.2.5 Procedures

Parents of children with disabilities were contacted through schools administrations and received sealed package includes instruments with covering letter explaining the purposes of study and asking them to complete the instruments without specifying which of them to do so. An example of correct way for completing the instruments was provided, parents have been told to return the completed instruments back to schools administrations.

2.2.6 Statistical Analysis

To examine the hypotheses of study and answer its questions, all responses were coded, entered and analyzed using version 22 of (SPSS), and then expressed through means and standard deviations. The t-test for independent sample and two-way analysis of variance were used as main statistical techniques. Means and standard deviations for scores were extracted for Parental Stress Scale and Coping Strategies Inventory, variance of these means was compared according to variables of the study. Finally, multi linear regression analysis was used to assess predictability of levels of stress in coping strategies.

3. Results

The aim of this study was to explore levels of stress in parents of children with physical, mental, and hearing disabilities, and strategies they used to cope according to parent's gender and type of child's disability. In what follows, the researcher presents results of the research questions set for this study.

3.1 Results of the First Research Question

The first research question addressed levels of stress experienced by parents of children with disabilities; parents' scores on Parental Stress Scale, means, standard deviations, and t-test of these scores are shown in Table 2.

Table 2. Participants' Scores on Parental Stress Scale

Parental Stress	Mean	SD	T	df	Significant
	51.45	9.42	15.12	133	0.000**

N = 134

** p <0.000%

Table 2 shows that the mean of scores of stress in parents of children with disabilities measured by Parental Stress Scale was 51.45 (SD = 9.42), these results indicated high levels of stress experienced by those parents, the results were significant at ($p < 0.000$).

3.2 Results of the Second Research Question

The second research question investigates if levels of stress experienced by parents of children with disabilities differ according to parent's gender and disability's type. To answer this question, means and standard deviations of parents' scores on Parental Stress Scale was used in two-way ANOVA analysis to investigate variance between these means; results are shown in table 3.

Table 3. Participants' Scores on Parental Stress Scale According to Parent's Gender and Disability's Type

Gender	Disability	Mean	SD	F	Significant
Male	Physical	54.34	10.82		
	Mental	49.72	8.84		
	Hearing	45.79	9.57		
Female	Physical	47.00	10.45		
	Mental	43.60	9.87	4.76*	0.031
	Hearing	45.62	7.23		
Total	Physical	50.67	10.54		
	Mental	46.66	9.44		
	Hearing	45.70	8.41		

* p <0.05%

Table 3 shows the results of two-way ANOVA analysis for parents score on Parental Stress Scale according to parent's gender and disability's type. Results showed that parents of

children with physical disability have the highest mean of stress (m = 50.67, SD = 10.54), followed by parents of children with mental retardation (m = 46.66, SD = 9.44), and finally parents of children with hearing impairment (m = 45.70, SD = 8.41). In the other hand, fathers of children with disabilities in general showed higher levels of stress than mothers regardless of disability's type, mean for fathers of children with physical disability was (m = 54.34, SD = 10.82), for mental retardation (m = 49.72, SD = 8.84), and finally for hearing impairment (m = 45.79, SD = 9.57), while mothers means were (m = 47.00, SD = 10.45), (m = 43.60, SD = 9.87), (m = 45.62, SD = 7.23) respectively, these differences were significant at ($p < 0.05$).

3.3 Results of the Third Research Question

The third research question addressed strategies used by parents of children with disabilities to cope with stress; parents' scores on second level of dimensions in Coping Strategies Inventory, means, standard deviations, and t-test are shown in Table 4.

Table 4. Participants' Scores in the Second Level of Coping Strategies Inventory

Dimension	Mean	SD	T	df	Significant
Problem Focused Engagement	28.46	5.74	19.74	133	0.000**
Emotion Focused Engagement	25.71	6.29	13.77		
Problem Focused Disengagement	25.44	5.48	13.04		
Emotion Focused Disengagement	22.94	7.33	6.45		

N = 134

** p <0.000%

Table 4 show scores of parents of children with disabilities on Coping Strategies Inventory in the second levels of dimensions. The results showed that problem focused engagement was the most used strategy (m = 28.64, SD = 5.74), followed by emotion focused engagement (m = 25.71, SD = 6.29), later problem focused disengagement (m = 25.44, SD = 5.48), and finally emotion focused disengagement (m = 22.94, SD = 7.33), the differences in these means were significant at ($p < 0.000$).

3.4 Results of the Forth Research Question

The forth research question investigates whether strategies used by parents of children with disabilities to cope differ according to parents' gender and disability's type, means of parents' scores on engagement strategies from the second level in Coping Strategies Inventory, and standard deviations was used in two-way ANOVA analysis to investigate variance between these means; results are shown in table 5.

Table 5. Participants' Scores on Engagement Strategies According to Parents' Gender and Disability's Type

Dimension	Gender	Disability	Mean	SD	F	Significant
Problem Focused Engagement	Male	Physical	23.28	6.57		
		Mental	34.08	3.14		
		Hearing	28.17	4.42		
	Female	Physical	27.43	5.27		
		Mental	26.72	6.26	6.14*	0.019
		Hearing	31.12	5.12		
	Total	Physical	25.97	5.92		
		Mental	30.40	5.56		
		Hearing	29.64	4.77		
Emotion Focused Engagement	Male	Physical	21.85	6.82		
		Mental	28.27	4.96		
		Hearing	25.37	5.89		
	Female	Physical	30.10	7.78		
		Mental	20.43	5.70	5.21	0.028*
		Hearing	28.27	5.65		
	Total	Physical	25.53	7.34		
		Mental	24.35	5.71		
		Hearing	26.82	5.72		

* p <0.05%

Table 5 shows the results of two-way ANOVA analysis for parents of children with disabilities scores on engagement strategies from the second level according to parents' gender and disability's type. Results showed that parents of children with disabilities use problem focused engagement more than emotion focused engagement strategies to cope with stress. Parents of children with mental retardation scored the highest mean (m = 30.40, SD = 5.56), later parents of children with hearing impairment (m = 29.64, SD = 4.77), and finally parents of children with physical disability (m = 25.97, SD = 5.92). For emotion focused engagement strategies, parents of children with hearing impairment scored the highest mean (m = 26.82, SD = 5.72), while parents of children with physical disability scored (m = 25.53, SD = 7.34), and finally parents of children with mental retardation (m = 24.35, SD = 5.71).

As for gender differences in using engagement strategies, mothers of children with hearing impairment scored the highest means on problem focused engagement strategies (m = 31.12, SD = 5.12), later mothers of children with physical disability (m = 27.43, SD = 5.27), and finally mothers of children with mental retardation (m = 26.72, SD = 6.26). In the other hand, mothers of children with physical disability scored the highest levels of emotion focused engagement strategies (m = 30.10, SD = 7.78), later mothers of children with hearing impairment (m = 28.27, SD = 5.65), and finally mothers of children with mental retardation (m = 20.43, SD = 5.70). In return, fathers of children with mental retardation scored the highest means on problem focused engagement strategies (m = 34.08, SD = 3.14), later

fathers of children with hearing impairment (m = 28.17, SD = 4.42), and finally fathers of children with physical disability (m = 23.28, SD = 6.57). For emotion focused engagement coping strategies, the mean of fathers' scores came in the same order regarding type of disability, means were (m = 28.27, SD = 4.96), (m = 25.37, SD = 5.89), and (m = 21.85, SD = 6.82) respectively, all the differences in means in table 5 were significant at ($p < 0.05$).

For disengagements coping strategies, means of parents' scores from the second level and standard deviations were used in two-way ANOVA analysis to investigate variance between these means; results are shown in table 6.

Table 6. Participants' Scores on Disengagement Strategies According to Parents' Gender and Disability's Type

Dimension	Gender	Disability	Mean	SD	F	Significant
Problem Focused Disengagement	Male	Physical	22.57	5.87		
		Mental	28.34	4.90		
		Hearing	23.55	5.78		
	Female	Physical	27.78	6.34		
		Mental	22.29	4.80	5.66*	0.027
		Hearing	28.14	5.09		
	Total	Physical	25.18	6.02		
		Mental	25.32	4.80		
		Hearing	25.84	5.45		
Emotion Focused Disengagement	Male	Physical	29.35	8.38		
		Mental	25.72	5.04		
		Hearing	20.96	8.02		
	Female	Physical	21.21	8.31		
		Mental	19.24	6.27	6.07*	0.019
		Hearing	21.17	7.13		
	Total	Physical	25.28	8.24		
		Mental	22.48	5.86		
		Hearing	21.06	7.52		

* $p < 0.05\%$

Table 6 show results of two-way ANOVA analysis for parents of children with disabilities scores on disengagement strategies from the second level of dimensions according to parents' gender and disability's type. Results showed that parents of children with disabilities use problem focused disengagement strategies more than emotion focused disengagement strategies to cope with stress. Parents of children with hearing impairment scored the highest mean (m = 25.84, SD = 5.45), later parents of children with mental retardation (m = 25.32, SD = 4.80), and finally parents of children with physical disability (m = 25.18, SD = 6.02). For emotion focused disengagement strategies, parents of children with physical disability scored the highest mean (m = 25.28, SD = 8.24), while parents of children with mental

retardation scored (m = 22.48, SD = 5.86), and finally parents of children with hearing impairment (m = 21.06, SD = 7.52).

As for gender differences in using disengagement strategies, fathers of children with physical disability scored the highest means on emotion focused disengagement strategies (m = 29.35, SD = 8.38), later fathers of children with mental retardation (m = 25.72, SD = 5.04), and finally fathers of children with hearing impairment (m = 20.96, SD = 8.02). In the other hand, fathers of children with mental retardation scored the highest levels of problem focused disengagement strategies (m = 28.34, SD = 4.90), later fathers of children with hearing impairment (m = 23.55, SD = 5.78), and finally fathers of children with physical disability (m = 22.57, SD = 5.87). Inreturn, mothers of children with hearing impairment scored the highest means on problem focused disengagement strategies (m = 28.14, SD = 5.09), later mothers of children with physical disability (m = 27.78, SD = 6.34), and finally mothers of children with mental retardation (m = 22.29, SD = 4.80). For emotion focused disengagement coping strategies, mothers of children with physical disability scored the highest means on emotion focused disengagement strategies (m = 21.21, SD = 8.31), later mothers of children with hearing impairment (m = 21.17, SD = 7.13), and finally mothers of children with mental retardation (m = 19.24, SD = 6.27), all the differences in means in table 6 were significant at ($p < 0.05$).

The third level of Coping Strategies Inventory differentiates between two dimensions of coping strategies, engagement versus disengagement strategies. To verify whether the use of these strategies would differ according to parents' gender and type of disability, means and standard deviations of parents' scores on Coping Strategies Inventory was used in two-way ANOVA analysis to investigate the variance between these means; results of this analysis are shown in table 7.

Table 7 shows the results of two-way ANOVA analysis for parents of children with disabilities score on coping strategies in the third level of dimensions in Coping Strategies Inventory according to gender and type of disability. Results showed that parents of children with disabilities in general use engagement strategies more than disengagement strategies to cope with stressful situations. Parents of children with hearing impairment scored the highest mean (m = 56.46, SD = 8.34), and later parents of children with mental retardation (m = 54.75, SD = 8.51), and finally parents of children with physical disability (m = 51.33, SD = 11.37). For disengagement strategies, parents of children with physical disability scored the highest mean (m = 50.45, SD = 12.74), while parents of children with mental retardation scored (m = 47.79, SD = 9.73), and finally parents of children with hearing impairment (m = 46.91, SD = 10.37).

Table 7. Participants' Scores in third level of Coping Strategies Inventory According to Parents' Gender and Disability

Dimension	Gender	Disability	Mean	SD	F	Significant
Engagement	Male	Physical	45.13	11.07		
		Mental	62.35	7.14		
		Hearing	53.54	8.39		
	Female	Physical	57.53	11.73		
		Mental	47.15	8.47	6.17*	0.024
		Hearing	59.39	8.39		
	Total	Physical	51.33	11.37		
		Mental	54.75	8.51		
		Hearing	56.46	8.34		
Disengagement	Male	Physical	51.92	12.98		
		Mental	54.06	9.41		
		Hearing	44.51	11.15		
	Female	Physical	48.99	12.82		
		Mental	41.53	10.00	7.43*	0.013
		Hearing	49.31	9.65		
	Total	Physical	50.45	12.74		
		Mental	47.79	9.73		
		Hearing	46.91	10.37		

* p <0.05%

As for results regarding gender differences in using strategies to cope with stress, fathers of children with mental retardation scored the highest means on engagement strategies (m = 62.35, SD = 7.14), and later fathers of children with hearing impairment (m = 53.54, SD = 8.39), and finally fathers of children with physical disability (m = 45.13, SD = 11.07). In the other hand, fathers of children with mental retardation scored the highest levels of disengagement strategies (m = 54.06, SD = 9.41), and later fathers of children with physical disability (m = 51.92, SD = 12.98), and finally fathers of children with hearing impairment (m = 44.51, SD = 11.15). Inreturn, mothers of children with hearing impairment scored the highest means on engagement strategies (m = 59.39, SD = 8.39), and later mothers of children with physical disability (m = 57.53, SD = 11.73), and finally mothers of children with mental retardation (m = 47.15, SD = 8.47). In the other hand, and for disengagement coping strategies, mothers of children with hearing impairment scored the highest means on disengagement strategies (m = 49.31, SD = 9.65), and later mothers of children with physical disability (m = 48.99, SD = 12.82), and finally mothers of children with mental retardation (m = 41.53, SD = 10.00), all the differences in the means in table 7 were significant at ($p < 0.05$).

3.5 Results of the Fifth Research Question

The fifth research question investigates whether levels of stress in parents of children with disabilities can predict the use of coping strategies. To answer this question, scores of parents

on Parental Stress Scale, and scores of parents in the second and third level of Coping Strategies Inventory were used in linear regression analysis and additional correlational analysis; results are shown in table 8.

Table 8. Linear Regression and Correlational Analysis between Stress and Coping Strategies

Levels of Dimensions	Correlation	Regression	F	Significant
The Second Level	0.850	0.722	27.36**	0.000
The Third Level	0.781	0.609	18.16**	

** p <0.000%

Simple linear regression was carried out in order to test the fifth research question as it was considered as a method to predict coping strategies used by parents of children with disabilities through levels of stress they have. Results in table 8 showed high positive and significant correlation between levels of stress as scored in Parental Stress Scale and dimensions of Coping Strategies Inventory in the second level (r = 0.85), and for the third level (r = 0.781). On the other hand, linear regression (coefficient of determination) analysis showed acceptable predictable relation between levels of stress as scored in Parental Stress Scale and dimensions of Coping Strategies Inventory in the second level (r^2 = 0.722), and the third level (r^2 = 0.609), these results were significant at (p < 0.000).

4. Discussion

The current study investigated levels of stress in parents of children with physical, mental, and hearing disabilities, and strategies they use to cope with these stresses. It was hypothesized that those parents have high levels of stress, and therefore they would use several strategies to cope with these stresses. It was also hypothesized that strategies used by those parents would differ according to parents' gender and type of disability in the child.

As hypothesized, results indicated the presence of high levels of stress experienced by parents of children with disabilities; this result came to be consistent with findings from previous studies such as (Picci, et al., 2015; Woodman, & Hauser, 2013; Wang, Michaels, & Day, 2011) which all indicated high levels of stress in parents of children with disabilities. According to the literature reviewed before, these high levels of stress came as a result of permanent feelings of crisis of parents' incapability to provide effective efforts to handle developmental and behavioral problems in their child with disability (Mount & Dillon, 2014), their realization to the fact of everlasting dependency of the child with disability (Taanila, et al., 2012), and feelings of isolation and rejection they might face from their societies, (Wang, Michaels, & Day, 2011; Hauser, et al., 2009). These stresses are doubled due to behavioral problems and functional limitations in child with disability (Herring, et al., 2006). Levels of stress in those parents would be increased because of the negative perceptions parents hold about disabilities (Dempsey, et al. 2008; and Gallagher, et al., 2008), and the lack of

specialized professional supporting services (Glidden, 2012, pp 311), which is most of the times, the case in Jordan.

The high levels of stress in parents of children with disabilities were part of holistic understanding we were seeking from implementing the research; this understanding is accomplished by findings from the second question which aimed to differentiate levels of stress according to parents' gender and disability's type. The results showed that parents of children with physical disability have the highest levels of stress, while parents of children with hearing impairment have the lowest levels of stress. Knowing the effects of specific disability on child and family life, and taking into consideration resources of stress in parents of children with disabilities as in (Woodman, & Hauser, 2013; Glidden, 2012; Gallagher, &Whiteley, 2012); these results might be understood as the physical disability is an obvious condition and more stigmatized by society, and those children are totally dependent on their parents, especially in inaccessible environments which put restrictions on family activities, therefore parents would express higher levels of stress. On the other hand, children with hearing impairment are more fortunate to have the adequate chances for independency and acceptable academic achievement. Acceptable independency and academic achievements for deaf and hard of hearing but not-mentally retarded children with hidden and not obvious disability might explain low levels of stress in parents of children with hearing impairment.

Coping strategies used by parents of children with disabilities showed that engagement strategies were in general the most used ways by those parents, with preference to use problem focused engagement strategies more than emotion focused engagement coping strategies. To have a full understating of the use of coping strategies; we need to consider these results according to parents' gender and disability's type. In general, parents of children with disabilities tend to use engagement strategies more than disengagement ones, and specifically problem focused engagement strategies rather than emotion focused engagement strategies. In refer to the literature review, and considering the children with disabilities' young age, it seems that those parents still perceive the deficiencies in their children still are not clear, as they are still young and receiving an adequate package of services in distinguished special education centers in Jordan; these factors act as determinant of stress in those parents, (Gallagher, & Whiteley, 2012). In addition to that, the severity of disability in those children were mostly mild and rarely moderate, i.e. those children were diagnosed with diplegic cerebral palsy (for physically disabled), Down Syndrome (for mentally retarded), and hard of hearing (for hearing impairment), and those children must be mostly independent in their daily living skills as a condition for admission in these centers, and major deficiencies in those children were mobility, academic achievement, and communication respectively, those parents are perceiving mobility, academic failure, and communications as acceptable challenges that could be solved with some efforts, (Picci, et al., 2015; Pastor, et al., 2009). Going back to the theoretical framework of (Lazarus, & Folkman, 1984); problem focused engagement coping strategies include conscious attempts to handle the stressful situation, this includes a new perception of the stressful situation, while emotion focused engagement coping strategies include efforts to regulate emotions from the stressful situation. In other words, these results indicated that parents of children with disabilities tend to perceive

disability as a situation that could be solved, and during the solving process, they are dealing with emotions related to this situation.

Fathers of children with disabilities preferred to use engagement strategies more likely than mothers who preferred disengagement strategies. Taking into consideration the structure of Jordanian families that mothers are the main care giver of children, and fathers' role – if we could count – might be supportive in most cases, this means that mothers are obliged to take care of the child with disability and to be more familiar with the child's deficiencies, and consequently more aware of their incapability to do much to change the child (Seymour, et al., 2013), unlike fathers who focus more on financial support for the family.

Levels of stress in parents of children with disabilities have various psychological and physiological negative effects, and the challenges faced by those parents were pervasive. It is clear that the major restriction in the life of parents of children with disabilities is the limited activities the family can involve and the need to maintain a constant predictable routine, which creates a sense of burden and restricted spontaneity (Mount & Dillon, 2014). The inaccessibility to have desired changes in parents' lives, enjoying recreational activities, insufficient social activities, fear of future, and family conflicts especially with the child with disability's siblings put additional restrictions and stress on the parents. We need to be aware that such stresses are dynamic according to the previous factors, and as a result coping strategies should be also changed continually to face these dynamic stresses. There is no doubt that parents of children with disabilities provide doubled efforts to raise their child with disability and siblings, and to maintain family well-being, these efforts should be highlighted through comprehensive understanding and providing free adequate educational, rehabilitation and medical services.

A holistic understanding of these results may suggest that the presence of high levels of stress in parents of children with disabilities is highly correlated to limitations and restrictions resulting from the disability more than labeling the disability, i.e. parents are more concern about what the child with disability can or can't do, more than sophisticated categorizing of type and severity of the disability.

4.1 Conclusion and Implications for Future Research

The findings of the study indicated high levels of stress in parents of children with disabilities, with individual differences in the way parents cope with these stresses according to gender and type of disability. A major factor affects the coping process was the deficiencies perceived in the child and the expected role of care provider, where parents of children with physical disabilities, as an example, showed higher levels of stress, and while mothers are the major care giver, but fathers showed higher levels of stress, and as a result fathers and mothers use different strategies to cope with this stress.

What we concern about in implementing this research was the different levels of stress and coping strategies used by parents according to type of disability. It was found that parents were more concerned about the abilities of the child with disability; they tend to think and accept what the child can do more than of thinking and rejecting what the child can't do.

Abilities of child with disability such as independency, mobility, and communicating were more in concern for those parents, as they accept the less from the child with disability instead of looking for much.

Thinking of social and cultural considerations, we need to think deeply of the perceptions parents hold about the disability, and specifically about the causes of disability and the way these perceptions affect levels of stress they have and coping strategies they use. In the absence of clear understanding of disability with indefinite and uncertain identity of causes of disability, parents tend to exchange blame for having a child with disability, such patterns of reactions hinder coping process and impede the use of active coping, and may lead to family conflicts. Down Syndrome is highly correlated to mother's age, hearing impairment is correlated to heredity, physical disabilities are correlated to perinatal circumstances, therefore; mothers are considered to be responsible for disability in the child, and as a result they tend to accept the disability and related stress and use emotion focus coping strategies, while fathers perceive themselves as not responsible for the disabilities, and focus more on financial issues of disability which are considered as problems that could be solved by extra efforts through problem-focus strategies. The overall results here that mothers accept the disability of the child and handle the emotion in this acceptation, while fathers perceive the disability as a problem that could be solved with some persevered efforts. We believe that the first step of handling stress of caring child with disability is to put aside responsibility of disability, and to focus more on equality of caring this child. Future research should be directed to perceptions of parents of children with disabilities about the disability and its relation to levels of stress they have and coping strategies they use, this is in the first level, in second level, the availability of free adequate professional supportive services of children with disabilities and their relation to levels of stress and coping strategies in those parents should be addressed too.

5. Recommendations

1. Families of children with disabilities tend to use their own resources to care of the child with disability, in light of these insufficient resources, and lack of supportive professional services in growing countries as Jordan; families remain under stress and need more attention in special education programs.
2. Parents of children with disabilities have different levels of stress, and as a result, they use various strategies to cope, and this arouses the need for future investigations for the well-being of parents' life in light of the efficacy of used coping strategies.
3. When providing family counseling, attention should be to all family members, an emphasis on equality in caring for the child with disability between both parents should be obtained, and focusing on coping strategies and various ways in solving-problem and family conflicts' resolution rather than exchanging blame between parents for insufficient performance in caring the child with disability.
4. Parents and family members should be aware of areas of strength in the child with disability alongside with weakness ones.

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