



Determination of Parents Burnout for Child with Type 1 Diabetes Mellitus in Endocrine and Diabetes Center at Al-Nasiriyah City

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Abstract

Objectives: To assess level of parents' burnout for child with type 1 diabetes mellitus (T1DM). Also to find out the association between parents burnout, and demographic characteristics (child age at diagnosis, gender of parents', parents' level of education). **Methodology:** A descriptive cross-sectional study design was conducted in Endocrine and Diabetes Center at AL-Nasiriyah city to assess level of parents' burnout for child with T1DM and find out the association between parents burnout, and demographic characteristics (child age at diagnosis, gender of parents', parents' level of education). The study was conducted on 200 parents' who have child with type T1DM. The data were collected using the interview and the questionnaire form, which was designed to contain (44) items containing the form of personal and demographic characteristics and parents' burnout, as followed by Maslach burnout interview after modification (Maslach, 2001). This part involves (34) distributed into three sub-domains, which are (Emotional exhaustion, Personal accomplishment and Depersonalization). The data were analyzed using descriptive statistics method (frequency, percentages, Chi Square). **Results:** The study shows that the parents' are moderately burned out and there is no statistically significance between parents' burnout and parents' demographic characteristics. **Recommendations:** Study recommended establishing educational program should be done for parents' to decrease burnout level. Instructional class or folder given for parent's for increase their knowledge toward effects of burnout on their daily physical and emotional functions

Keywords: *Parents', Burnout, T1DM.*

Introduction

Children parents' with type 1 diabetes (T1DM) are in charge of every single day by day need of T1DM child, which has impacts on their life duties that will prompt totally change in family life. Every day managing of T1DM child require more time for caring, which altered in many family schedules that attended for them [1]. constant worry that accompany family life with increase and decrease in glucose level, optimization of growth and development that increase the worry for achieving these level for their child's health [2].

Effective management for child, which is, diagnosed with T1DM highly dependent on her/his family. Parents' are in burden of supporting the child and given the treatment, including estimation of plasma glucose levels, insulin dose ascertainly measure, playing exercise and course of good nutritional program balance, which together set up a massive and basic exertion went for

achieving incredible metabolic control in the tyke [3]. Over repented symptoms of parents burnout with child with chronic disease in comparing manner with control parents'[4]. Once a child with type 1 diabetes is diagnosed, parents with a child with type 1 diabetes should be prepared to receive high-quality care and treatment for their child.. Self-care therapy includes measuring plasma glucose levels, changing insulin injections, exercising and eating healthy food. [5].

Burnout is a critical disorder and issue in social situation, particularly for nurses in human services settings, numerous investigations have tended to that burnout influences worker's physical and mental status, establishment prosperity, and indirect to the patient results if the experts are medical professional. According to Maslach, innovatory scale is an emotional exhaustion syndrome (EE), low personal achievement (PA), and personal accomplishment (PA) that

occur with individuals who work with people-related jobs such as education and health caring [6].

Materials and Methods

Objective of Study

- To assess parents' burnout for child with type 1 diabetes mellitus.
- Also to find out the association between parents burnout, and demographic characteristics (child age at diagnosis, gender of parents', parents' level education.

Study Design

Descriptive cross-sectional design study was conducted through the present investigation in demand to reach the objectives of the present study.

Setting of the Study

Present study was done in endocrine and diabetes center at AL-Nasiriyah city

Sample of the Study

A non-probability (purposive) study sample, (200) parents which consisted of all parents' which were registered at endocrine and diabetes center at Al-Nasiriyah city for consultation.

- Parents' of child diagnoses with T1DM.
- Parents' accepted to cooperate in this study.

The study instrument: A designed and constructed questionnaire by the researcher for variable measurement. Through literature reviewed and related studies a construction questionnaire was engaged. The questionnaires compose of two parts.

- Demographic information sheet, consisted of (10) items, which included age of child at

diagnosis, gender, Mother Social status, social status of father, Mother level of Education, level education father, job of mother, father job, Monthly income and Residence. Those items rated and scored as choose a suitable answer.

- Parents' burnout measured by Maslach burnout interview after modification (Maslach, 2001). This part involves (34) distributed into three sub-domains, which are (Emotional exhaustion, Personal accomplishment and Depersonalization). items are concerned with burnout measurement

Data Collection

Data were collected for this study using investigative tools and corresponding work as data collection methods.

Data Analysis

Analysis of the data was through the use of the following statistical data analysis approaches.

Results

The distribution of the corresponding demographic characteristics of (1) table shows that the high present of child age at diagnosis (44%) were (5_7) years old. Majority (70 %) of the study sample were female. Regarding to the parents' social status that (90%) were marriage. Majority parents' level education (38.6 %) of mother secondary school accounts (54) of study sample then father level education (33.3 %) secondary school accounts (20) of study sample. (67.14) were house wife in related to mother job, (58.33) were Employee in concerned to father job. (47.0 %) were not enough parents' income. (77.0%) were lives at urban area.

Table 1: Distribution of the study sample (200) parents' for child with type 1 diabetes mellitus by their demographic characteristics

Variables	Groups	Study Sample	
		Freq.	%
Age of Child at Diagnosis	2-4	72	36.0
	5-7	88	44.0
	8-10	22	11.0
	11-13	10	5.0
	≥ 14	8	4.0
	Total	200	100%
Gender of Parents'	Male	60	30.0
	Female	140	70.0
Social state of Mother	marital	180	90.0
	Separated	20	10.0
Social State of Father	married	180	90.0
	Separated	20	10.0

Mother level of Education	Illiterate	4	2.8
	Read and write	15	10.7
	Primary school	30	21.4
	Secondary School	54	38.6
	Institute and above	37	26.5
Father level of Education	Illiterate	6	10.0
	Read and write	10	16.7
	Primary school	12	20.0
	Secondary School	20	33.3
	Institute and above	12	20.0
Mother job	House wife	94	67.14
	Employed	46	32.86
Father job	Employee	35	58.33
	Free business	25	41.64
Monthly income	Enough	28	14.0
	enough Somewhat	78	39.0
	Not enough	94	47.0
Residence	Urban	154	77.0
	Rural	46	23.0

Freq. =Frequencies, %= Percentages

Table 2: Distribution of Parents' Burnout for Child with Type 1 Diabetes

Items	Score	Frequency	Percent	M.S	Assessment
Emotional Exhaustion	Sever Burnout	40	20.0	2.09	Moderate
	Moderate Burnout	138	69.0		
	Mild Burnout	22	11.0		
	Total	200	100		
Personal Accomplishment	Sever Burnout	58	29.0	1.96	Moderate
	Moderate Burnout	76	47.0		
	Mild Burnout	66	24.0		
	Total	200	100		
Depersonalization	Mild Burnout	52	26.0	1.26	Mild
	Moderate Burnout	148	74.0		
	Total	200	100		
Overall Parents' Burnout	Sever Burnout	33	16.5	1.93	Moderate
	Moderate Burnout	120	60.0		
	Mild Burnout	47	23.5		
	Total	200	100		

Cut off point (0.66), mild mean score (1-1.66), moderate mean score (1.67-2.33), high mean score (2.34 and more)

Table 3: Association between the Parents' Burnout and their Demographic Characteristics

Demographic data	Rating	Chi-square	d.f	p-value
Age of Child at Diagnosis /years	2-4	1.787	4	0.77
	5-7			
	8-10			
	11-13			
	≥ 14			
Gender of Parents	Male	2.345	1	0.39
	Female			
Educational level of Mother	Illiterate	3.693	4	0.44
	Read and write			
	Primary school			
	Secondary School			
	Institute and above			
Education level of Father	Illiterate	2.034	4	0.73
	Read and write			
	Primary school			
	Secondary School			
	Institute and above			

df, degree of freedom/ p-value probability value.

Table (2) indicated that based on statistical cut off point (0.66), this table shows that the parents' are moderately burned out (mean of score (1.67-2.33) at the emotional exhaustion and the personal accomplishment sub domain, while at the depersonalization sub domain, the results indicate that they are burned out at mild level (mean of score 1-

1.66). Furthermore, the study results indicate that the overall assessment for the parent" burnout is moderate burnout. Table (3) indicated that there is a non-statistically significant difference between the parents' burnout and their and their demographic data.

Discussion

Table (1): This table shows child age at diagnosis T1DM (44%) were (5_7) years old. This finding is agreeing with [7] they Study of Type 1 diabetes in Crete, that show incidence rates of (T1DM) in children old 5-9 years was higher in Greek, also tis results agree with study done by [8] the study Type 1 diabetes incidence and prevalence trends in a cohort of Canadian children and youth in Canada which results show Incidence was highly percent among age (5 to 14) years of children. Related to the social status of parents' both mother and father account for (90%) of study sample are marriage results agree with study done by [9], the study of parental stress and child behavior in young children with type 1 diabetes, (90%) of study sample are married, Regarding the educational level of the sample.

It was found the higher percentage was at secondary school graduated for (38.6%) the father (33.3) of study sample. This result disagree with a study undertaken in Sweden, [10] show that (64.4%) of parents' were graduated from college or high school. Regarding job of parents' the highest percent of study sample are house wife (67.4) mother job and (58.33) are employee regarding to father job at 39% the study agree with[11]. Regarding to the monthly income of parents' the results of stud show (47%) of study sample with not enough monthly income this results agree with study done by [12].

Evaluation of psychological and social variables by parents of young people with type 1 diabetes, show that (42.2%) of parents' with very low of monthly economic status. In relation to the residency (77.0%) of study sample lives at urban area. Table (2): This table show distribution of parents' burnout for child with T1DM based on statistical cut off point (0.66), this table shows that the parents' are moderately burned out (mean of score 1.67-2.33) at the emotional exhaustion and personal accomplishment sub domain, while at the depersonalization sub domain, the results indicate that they are burned out at mild level (mean of score 1-1.66).

Furthermore, the study results indicate that the overall assessment for the parents" burnout is moderate burnout. Parental burnout moderate for items because mean score more than 1.67 this result agree with [11].

The differences in parental depletion have been studied: the effect of demographic factors and the personality of parents and children that show large-scale life-span between these children were moderate risk factors for parental fracture .This agreement with [13]. The study of the five major personality traits and the depletion of parents: the protective and risk factors, which were highlighted in the impact of three personal traits on the combustion of parents, [10]. The study showed an increase in the prevalence of symptoms of exhaustion in the parents of children with chronic diseases as a result of the study that children parents with chronic diseases have symptoms of additional exhaustion significantly from parents of healthy children.

Table (3): This table presented non-significant differences between age of child at diagnosis /years, gender of parents and mother and father level of education p-value > 0.05. The study agreement with [14].Study of parental burnout in relation to social, demographic, psychological and social factors in addition to the duration of disease and control of blood sugar in children with type 1 diabetes, through the study conducted by researchers. The mother's educational level, the social state and the burnout of parents.

Conclusion

According to the present study findings, the investigator has been able to make the following conclusions:

- The study presented most that parents' with T1DM are female.
- The study confirmed that most of the study sample had child age at diagnosis (5-7) years.
- The study indicated that most of T1DM parens' are employed.
- The study presented that parents' with T1DM suffering from Moderate bournout.
- The study confirms there is no statistically significance between parents' bournout and demographic characteristics.

Recommendation

Based on the study findings and conclusion, it is recommended the following:

- Educational program should be done for parents' to decrease burnout level.
- Instructional class or folder given for parent's for increase their knowledge

toward effects of burnout on their daily physical and emotional functions.

- To decrease parents' burnout, further studies should be conducted to determine the factors associated with it.

References

- Weinzimer SA, Tamborlane VW (2006) Diabetes mellitus in children and adolescents. In: Fonseca, V., editor. *Clinical Diabetes*. Philadelphia, PA: Saunders Elsevier, 505
- Mullins LL, Fuemmeler BF, Hoff A, Chaney JM, Van Pelt J, Ewing CA (2004) The relationship of parental overprotection and perceived child vulnerability to depressive symptomatology in children with type 1 diabetes mellitus: the moderating influence of parenting stress. *Child Health Care*, 33:21.
- Lowe L, Gregory JW, Lyne P (2005) Newly diagnosed childhood diabetes: A psychosocial transition for parents? *Journal of Advanced Nursing*, 50: 253-261.
- Lindstrom C, Aman J, Norberg AL (2010) Increased prevalence of burnout symptoms in parents of chronically ill children. *Acta Paediatr.*, 99: 427-32.
- Clarke WL, Gonder-Frederick A, Snyder AL, Cox DJ (1998) Maternal fear of hypoglycemia in their children with insulin dependent diabetes mellitus. *J. Pediatr. Endocrinol. Metab.*, 11(1): 189-94.
- Huan-Fang Lee, Hui-Ting Kuo, Cheng-Li Chang, Chia-Chen Hsu, Tsair-Wei Chien (2017) Determining Cutting Points of the Maslach Burnout Inventory for Nurses to Measure Their Level of Burnout Online. *History Research*, 5(1):1-8. doi: 10.11648/j.history.20170501.11
- D Mamoulakis, F Vrouvaki, V Louvari, E Galanakis (2018) Incidence of childhood Type 1 diabetes mellitus in Crete. *Diabetic Medicine*, 35 (9): 1210-1215. doi.org/10.1111/dme.13681.
- D Mamoulakis, F Vrouvaki, V Louvari, E Galanakis (2018) Type 1 diabetes incidence and prevalence trends in a cohort of Canadian children and youth. *Pediatric diabetes*, 19 (3):501-505. doi: https://doi.org/10.1111/pedi.12566.
- ME Hilliard,* M Monaghan,* FR Cogen†‡, R Streisand*§ (2010) Parent stress and child behaviour among young children with type 1 diabetes, *Blackwell Publishing Ltd, Child: care, health and development*, 37(2):224-232. doi: https://doi. 10.1111/j.1365-2214.2010.01162.x
- C Lindström, J Åman^{1, 2}, AL Norberg (2010) Increased prevalence of burnout symptoms in parents of chronically ill children. *Acta Pædiatrica.*, 99 (10): 427-432. https://doi.10.1111/j.1651-2227.2009.01586.x.
- Sarah Le Vigouroux¹, Céline Scola (2018) Differences in Parental Burnout: Influence of Demographic Factors and Personality of Parents and Children. *nt Psychol.*, 9 10 https://doi. 10.3389/fpsyg.2018.00887.
- FE Malerbi, C Negrato, MB Gomes (2012) "Assessment of psychosocial variables by parents of youth with type 1 diabetes mellitus," *Diabetol. Metab. Syndr.*, 4 (1): 48.
- Le Vigouroux S, Scola C, Raes ME, Mikolajczak M, Roskam I (2017) The big five personality traits and parental burnout: protective and risk factors. *Pers. Individ. Diff.*, 119: 216-219. 10.1016/j.paid.2017.07.023 [Cross Ref]
- Caisa Lindström (caisa.lindstrom@orebroll.se) ^{1, 2}, Jan Åman^{1, 2}, Annika Lindahl Norberg (2011) Parental burnout in relation to sociodemographic, psychosocial and personality factors as well as disease duration and glycaemic control in children with Type 1 diabetes mellitus. *Acta Pædiatrica*, 1011-1017.