

Correlation between the Quality of life, Level of stress and Coping strategies among the Patients with chronic Diabetes Mellitus admitted in selected hospitals

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ABSTRACT

INTRODUCTION

The WHO estimates that diabetes resulted in 1.5 million deaths in 2012 overall the world, making it the 8th leading cause of death. There is a need for extensive education and behavior change to manage the conditions. People with diabetes often feel challenged by their disease and its day-to-day management demands. The aim of the study was identify the correlation between the stress, coping strategies and quality of life among the patients with chronic diabetes mellitus.

METHODOLOGY

Quantitative Research Approach was adopted for this study. Totally 200 Chronic Diabetes Mellitus Patients who were attending Medical and Surgical OPD and Inpatients department in selected hospital were selected as sample. The sampling technique was Purposive Sampling technique. The tools were adopted for the study as stress, coping and quality of life assessment scale.

RESULTS

The correlation between quality of life and stress is 'r' value is -0.01 and 'p' value is 0.978, and quality of life and coping is 'r' value is 0.464 and 'p' value is $p < 0.001^{***}$ Highly significant and Correlation between stress and coping 'r' value is 0.001* Highly Significant.

CONCLUSION

This study implies that patients with chronic diabetic mellitus had the low quality of life, increased the level of stress and strengthen the coping strategies. The researcher evaluated and creates awareness for improve their quality of life and coping abilities.

Key words: stress, coping strategies, quality of life, chronic diabetes mellitus.

INTRODUCTION

Diabetic patients vary in their perceptions of quality of life and in their coping styles when dealing with everyday stress. Stress is a major public health problem in India. Stress is a psychological reaction. It affects large numbers of adolescents middle aged groups both men and women residing in urban, rural areas and slums. At the individual and family level, stress leads to poor quality of life, causing huge social and economic impact [Danasu. Et.al 2018]

More recently, health care providers have been paying more attention to patients' subjective feelings of well-being, and some subjective measures of quality of life have been developed.

[J E Ware 1998][G.H. Guyatt1990]

Diabetes is a chronic and debilitating disease that necessitates several adjustments in the patient's lifestyle.[Brannon L et.al 2012] Each patient builds his or her own experience of the disease, including its emotional and cognitive aspects, which in turn determines the patient's coping strategies. These coping strategies have a fundamental role in the patient's physical and psychological well-being, but there is no consensus on which coping styles are more effective for problem solving,[Holahan.C, 1987][Aldwin.C.M. 1987] prevention of future difficulties, or relief from emotional maladjustment.

The ability for self-care is affected by the individual adaptation to disease[Correia 1996] Adaptation to chronic disease is a difficult and complex process. The extent of adaptation can be conceptualized as the level of physical and psychological adjustment to the stress of having a long-term disease.[Grey et al 1997]

NEED FOR THE STUDY

Stress is a psychological reaction to events in one's environment that cause tension and anxiety, often because the individual feels that they cannot cope or manage the situation. Stress has even been linked to reduced brain function through the deterioration of brain cells.[Sathiya.K, et.al 2017]

Quality of life involves several dimensions, and it is generally accepted that quality-of-life measures should assess physical, psychological, and social functioning, as well as general satisfaction with life.[Schipper.et.al 1990][Esteve.M et.al 1997]

The coping mechanism is an important factor for diabetics. The Research findings also provide potential benefits in emphasizing cognitive and behavioral strategies to improve the well-being of individuals with diabetes.[Kamariyah.K et.al 2018]

The way a diabetic individual reacts to stress can be an important predictor of the person's success in adapting to the challenging of the diabetes, as an adaptive coping process is considered to be a stabilizing factor.[Holoan et.al 1987]

The purpose of this study was to examine the relationship between stress, coping strategies and quality of life among patients with chronic diabetes mellitus.

STATEMENT OF THE PROBLEM

Correlation between the quality of life, level of stress and coping strategies among the patients with chronic Diabetes Mellitus admitted in selected hospitals.

OBJECTIVES

- To assess the quality of life, level of stress and coping strategies among the Patients with chronic diabetes mellitus
- To correlate the quality of life, level of stress and coping strategies among the Patients with chronic diabetes mellitus

ASSUMPTIONS

- Chronic diabetes mellitus patient may have been altered quality of life & increased level of stress due to their health maintenance.
- Chronic diabetes mellitus patient may have inadequate coping strategies towards life events.
- Self-instructional module may help to improve the quality of life and coping Strategies and decreases their level of stress.

RESEARCH METHODOLOGY

Quantitative Research Approach was adopted for this study. The study setting was Sri Manakula Vinayagar Medical College and Hospital at Puducherry. The Patients attending Medical and Surgical OPD and Inpatients department in SMVMCH, who fulfill the inclusion criteria selected as sample for the study. The sample size was 200 Chronic Diabetes Mellitus Patients. Purposive Sampling technique was used to select the samples for this study.

Sample Selection Criteria

Inclusion criteria

Diabetic Mellitus Patients,

- Patients who have diabetic mellitus more than 5 years
- Both male and female diabetic mellitus patients
- Who are all available during the time of data collection

Exclusion criteria:

- Patient with psychiatric illness.
- All Juvenile diabetes mellitus.
- Patient who are critically ill

DESCRIPTION OF TOOL

- The tool used for this study is a standardized tool, the tool consists of 4 sections namely,

- **Section A: Variables**, It consists of 3 sub divisions such as,

Demographic Variables, clinical variables and psycho social variables.

- **Section B:** Stress Assessment Scale
- **Section C :** Coping assessment scale
- **Section D:** Quality of life Assessment scale

Protection of Human Rights

Approval and ethical clearance from the dissertation committee of the institution prior to conducting pilot study and main study was obtained by the researcher. Formal permission was obtained from concerned authorities of selected industry. Oral and written consent was obtained from samples after explanation regarding the objectives and nature of study and confidentially was maintained throughout the study.

Data Collection Procedure

The formal permission obtained from the concerned authorities. The samples were selected by using purposive sampling technique. The researcher introduced himself and explains about the purposes of the study to the patients. The researcher obtained consent from the patients. The researcher assessed the stress, coping and quality of life among the samples with appropriate tools. The researcher was selected 200 samples in between the 6 weeks of study duration. The researcher were administered the self-instructional module in order to promote the awareness regarding improve the quality of life and coping ability and decrease the stress level by the researcher own interest.

THE ORGANIZATION OF ANALYZED DATA

Data collected were organized under the following sections.

Section A: Frequency and percentage wise distribution of level of quality of life among patients with chronic diabetes mellitus.

Section B: Frequency and percentage wise distribution of level of stress among patients with chronic diabetes mellitus.

Section C: Frequency and percentage wise distribution of level of coping strategies among patients with chronic diabetes mellitus.

Section D: Distribution correlation of the quality of life, level of stress and coping strategies among patients with chronic diabetes mellitus patients.

Table 1: Frequency and Percentage Wise Distribution of Level of Quality Of Life among Patients with Chronic Diabetes Mellitus

(N=200)

Level of quality of life	Score	
	f	%
Low	1	0.5
Better	199	99.5
Good	0	0
Total	200	100

Table 1: The study findings reveals that most of them 199 (99.5%) were better quality of life but none of them were in good. Only one (0.5%) of them had low level of quality of life.

Hence, it reveals that Chronic Diabetes Mellitus patients had better quality of life in our setting of the study. It might be duration of Diabetes Mellitus had most of them were more than 10 years, They practiced life style modification based on their blood glucose level and they might be practice Healthy dietary habits, regular exercise, medication and regular follow up visits, etc., to achieve the better quality of life.

Table 2: Frequency and percentage wise distribution of level of stress among patients with chronic diabetes mellitus

(N=200)

Level of stress	Score	
	f	%
Normal	1	0.5
Mild	1	0.5
Moderate	24	12
Severe	168	84
Extremely severe	6	3
Total	200	100

Table 2: The table findings reveals that the majority of them 168(84%) were severe stress, 24(12%) of them were moderate stress, Only 6 (3%) of them are having extremely severe stress. Only one (0.5%) of them was in normal and mild level of stress. It shows that many of them severe stress. It might be the Chronic Diabetes Mellitus patients had inadequate Social support and Low level economic are more in this study.

Table 3: Frequency and percentage wise distribution of level of coping strategies among patients with chronic diabetes mellitus

Level of coping	Score	
	f	%
Strength	158	79
Weakness	42	21
Total	200	100

Table 3: The table findings reveals that the majority of them 158 (79%) coping level were in strength. Only 42(21%) of them were belongs to weakness of coping level.

Table 4: Karl Pearson correlation among quality of life, stress and coping strategies.(N=200)

Variables	'r'-value	P-value
Quality of life and stress	-0.01	0.978
Quality of life and coping	0.464	P<0.001***
Stress and coping	0.226	0.001**

*-P<0.05 , significant and **-P<0.01 &***-P<0.001 , Highly significant

Table 4: The table shows that the correlation between quality of life and stress is 'r' value is -0.01 and 'p' value is 0.978 in this study when quality of life increase stress level was decrease (Negative).

Correlation between quality of life and coping is 'r' value is 0.464 and 'p' value is p<0.001*** highly significant in this study quality of life increase, coping level also increase (Positive).

Correlation between stress and coping 'r' value is 0.001** highly significant in this study when stress is increase coping level is increase (Positive). The coping ability helps to reduce the stress among the patients.

MAJOR FINDINGS OF THE STUDY

In level of coping, 158 (79%) of them were belongs to strengthening of Coping, 42(21%) of them were belongs to weakening of coping.

In stress level, 1(0.5%) of them were belongs to normal level, 1(0.5%) of them were belongs to mild level, 24 (12%) of them were belongs to moderate level, 168(84%) of them were belongs to severe level, 6 (3%) of them were belongs to extremely severe level.

The study findings reveals that most of them 199 (99.5%) were better quality of life, but none of them were in good. Only one (0.5%) of them had low level of quality of life.

Correlation between quality of life and stress is 'r' value is -0.01 and 'p' value is 0.978 in this study when quality of life increase, stress level was decrease (Negative).

Correlation between quality of life and coping is 'r' value is 0.464 and 'p' value is p<0.001*** highly significant, in this study quality of life increase, coping level also increase (Positive).

Correlation between stress and coping 'r' value is 0.001** highly significant in this study when stress is increase coping level is increase (Positive). The coping ability helps to reduce the stress among the patients.

The study found significant differences in quality of life between male and female subjects in the comparison group. Quality of life appears to vary significantly according to gender independently of whether the person has diabetes, which is in accordance with the finding that women generally have worse scores than men on quality-of-life measures.[Lukkarine et.al 1997]

The research findings confirms the need to support adolescents' efforts to cope effectively with diabetes related stress. Results highlights the need to identify sources of stress and support effective coping strategies for adolescents with diabetes which may help to reduce symptoms of depression and quality of life. [Sarah.S et.al 2017].

Adolescents coping ability has been related to diabetes management, suggesting that future studies should examine coping as a predictor of adherence to treatment. Interventions have been developed to improve coping in youth with diabetes. [Jarer.SS et.al 2012].

Conclusion

The study was concluded that majority of the patients had better quality of life, severe stress and strengthened coping ability. To help a patient deal with chronic diabetes mellitus, health care team members should be aware of the patient's coping strategies. Stress and coping are important aspects of everyday life, and there is evidence suggesting that coping styles have a major role in physical, psychological, and social well-being.

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Data Accessibility

The datasets are available from the corresponding author on reasonable request.

Ethical Issues

Formal permission obtained from the institution. The objectives of the study were explained to the samples and informed consent obtained from them. They were also assured about the confidentiality of the data.

Conflict of Interests

None

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