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RELATIONSHIP BETWEEN PERCEIVED SOCIAL SUPPORT AND SELF EFFICACY IN TYPE 2 DIABETIC PATIENTS

Nursing

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ABSTRACT

INTRODUCTION

Type 2 Diabetes Mellitus (T2DM) is a chronic disease which has to be managed by altering lifestyle practices. Management of T2DM is complex with the involvement of various factors like self efficacy and social support which influence the quality of life.

METHODS AND MATERIALS

A study was done to find out the relationship between social support received by T2DM patients and their self efficacy. 30 samples who fulfilled the inclusion and exclusion criteria were chosen by convenient sampling, questionnaire on self-efficacy - Diabetic Management Self Efficacy Scale (DMSES) and social support (Multidimensional Scale of Perceived Social support) administered to them after the informed consent. The scores of both tools were analyzed to determine the association and correlation.

RESULTS

The mean DMSES scores show that 90% of the patients were self-efficient with a mean of 68.8 and a SD of 6.15. About 97% of type 2 diabetic patients had good social support with a mean of 55.9 and a SD of 5.88. There was no association between the demographic variables and clinical variables with self-efficacy and social support. A high correlation was found between social support and self-efficacy ($r = 0.61$, $p < 0.001$).

CONCLUSION

Nurses have a major role in helping significant others to understand the importance of social support among T2DM patients. This will improve the self efficacy of the patient leading to reduction in blood glucose values and improved quality of life.

KEYWORDS

Self efficacy, Social support and Type 2 diabetic patients

INTRODUCTION

Type 2 diabetes is one of the most common chronic diseases that is linked to obesity and aging, which is the result of the body's inability to use or produce the necessary quantity of the hormone insulin, utilized to convert circulating blood sugar into energy. This in turn increases the level of glucose in the blood, thereby demanding the use of medications and other methods of controlling the disease like exercise, diet control, etc. India currently represents 49 percent of the world's diabetes burden, with an estimated 72 million cases in 2017, a figure expected to almost double to 134 million by 2025. This presents a serious public health challenge to a country. Diabetes prevalence has increased by 64 percent across India over the quarter-century, according to a November 2017 report by the Indian Council for Medical Research, Institute for Health Metrics and Evaluation, both research institutes, and the Public Health Foundation of India, and advocacy. The increase in diabetes prevalence across India is not just indicative of an ageing population. Lifestyle changes linked to an increase in wealth are impacting all age groups. Up to 2 percent of women aged 15-19 years and 2.6 percent aged 20-25 years, had high or very high blood glucose levels. In men, this rose to 2.9 percent and 3.7 percent, respectively, according to data from the NFHS 2015-16. (1)
The diagnosis of diabetes has been described as a lifelong psychological burden on the patient and his or her family.

All patients with T2DM need to comply with a prescribed treatment. Typical treatment for T2DM involves a complex regiment of medications, diabetic friendly diet, exercises and self-monitoring of blood glucose levels. The following of this regimen requires great efforts by the patients, wherein a wide variety of social and psychological factors can interfere. Many diabetic patients are able to follow the prescribed treatment by themselves unless the social and psychological factors influence them.

Self-efficacy is an individual's confidence to take action. (2) It is one's ability to perform goal directed behavioral actions in the presence of any obstacle or barrier. (3) For T2DM patients, self-efficacy is viewed as their confidence and ability in managing medication, exercise and dietary control. Self-efficacy has been shown to contribute to better diabetic knowledge, behavior modification and glycemic control. (4)
Social support plays a pivotal role in patients with diabetes and is important in enabling them to cope effectively with the disease. Social support is an exchange of resources between at least two persons aimed at increasing the wellbeing of the receiver. It is a multidimensional concept referring to the support a patient receives from family, friends, colleagues and community at large. Previous studies showed that social support improved self-efficacy for patients in T2DM management (5), and patients from cohesive families tended to be more adherent to medication than patients from families in conflicts (6). Studies show that better social support was associated with better glycemic and blood pressure control, improved body fat composition, and better self-care behavior (7).

Determining the relationship between social support and self-efficacy may provide valuable information for health behavior interventions through education and counseling.

Therefore the research was aimed at investigating the self-efficacy and the social support among T2DM patients, along with correlating them.

MATERIALS AND METHODS

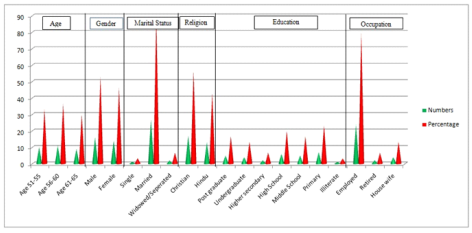
A descriptive design was used to conduct the study. The data was collected from T2DM patients of both genders, within the age group of 50-65 and ready to sign a consent form were included in the study. T2DM was diagnosed by the diabetic doctor based on various blood glucose values such HbA1, pre and post prandial glucose values. The inclusion criteria included a patient who had been diagnosed for more than a year, without complications. Patients were mobile and could do self-care activities. A sample size of 30 patients were taken for the study by convenient sampling method. Interviews were conducted to measure the self-efficacy and social support. Self-efficacy was measured by the English version of the Diabetic Management Self Efficacy Scale (DMSES). The social support was measured by the Multidimensional Scale of Perceived Social Support. The items tended to divide into four factor groups relating to the source of the social support, namely family, friends or significant others. Analysis was done by using descriptive and inferential statistics.

RESULTS

A total of 30 participants who fulfilled the inclusion and exclusion criteria answered the questions. The mean age of the patients involved in the study were 58.2 years with a slight male predominance. 90% of the patients were married and they were Christians (57%) and Hindus

(43%). Only one patient was an illiterate and most of them (80%) were employed. This is shown in Figure 1.

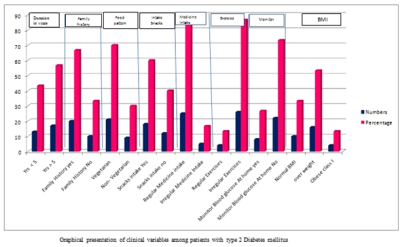
FIGURE 1 DISTRIBUTION OF DEMOGRAPHIC VARIABLES AMONG PATIENTS WITH TYPE 2 DIABETES MELLITUS
n = 30



Graphical presentation of demographic variables among type 2 Diabetes mellitus

Table II displays the Clinical variables of the patients. There was a family history among 67%, and 70% of them were vegetarians. Most of them (83%) took medicines regularly but most of them (87%) were not exercising regularly. Only 33% had normal BMI. This is shown in Figure 2.

FIGURE 2 DISTRIBUTION OF CLINICAL VARIABLES AMONG PATIENTS WITH TYPE 2 DIABETES MELLITUS
n = 30



Graphical presentation of clinical variables among patients with type 2 Diabetes mellitus

The mean DMSES scores show that 90% of the patients were self-efficient with a mean of 68.8 and a SD of 6.15. This is tabulated in Table1

TABLE 1 DISTRIBUTION OF LEVEL OF SELF-EFFICACY AMONG TYPE 2 DIABETES MELLITUS PATIENTS

Levels of Self Efficacy	Number	%	Mean	SD
Moderate	03	10	39	3.74
Good	27	90	68.8	6.15

About 97% of type 2 diabetic patients had good social support with a mean of 55.9 and a SD of 5.88. This is tabulated in table 4.

TABLE 2 DISTRIBUTION OF LEVEL OF SOCIAL SUPPORT AMONG TYPE 2 DIABETES MELLITUS PATIENTS

Levels of Social Support	Number	%	Mean	SD
Fair Support	3.3	-	-	-
Good Support	29	96.7	55.9	5.88

Social support highly correlated with self efficacy. ($r = 0.61$, $p < 0.001$)

TABLE 3 CORRELATION COEFFICIENT BETWEEN SELF EFFICACY AND SOCIAL SUPPORT AMONG TYPE 2 DIABETIC PATIENTS
n = 30

Variables	Mean	SD	R
Self efficacy	65.83	10.68	0.61
Social Support	55.27	6.73	

There was no association between demographic variables and clinical variables, with self-efficacy or social support.

DISCUSSION
The study revealed that most patients with type 2 diabetes take medicines regularly but fail to exercise regularly. They keep themselves employed, though they have a chronic illness. They monitor themselves regularly at affordable cost. The patients chosen for the study did not have any complications and so their self efficacy was good. In a Malaysian study done by Aneesa et al., the overall social support and self efficacy were found to be weakly correlated ($r = 0.197$,$p<0.001$). Another study done by Saeid Yazdi-Ravandi, et al., concluded that self-efficacy and social support are important in predicting the adjustment levels of diabetic patients. Furthermore, self-efficacy has a more potent function here than social support as it affects every individual's self-confidence and quality of life.

CONCLUSION
This study contributes the relationship between social support and self-efficacy on T2DM patients, in an outpatient diabetic department in Coimbatore. It was found that higher social support significantly correlated with better self-efficacy. The study implies that better social support will increase the self-efficacy of a diabetic patient, which in turn will reduce the complications and maintain blood glucose values close to normal. Nurses can encourage this inexpensive factor when educating diabetic patients.

Limitations to this study was a small sample size. The study findings suggest that future research should be done on deeper aspects of social support and also clinical values to be an evidence for good self efficacy.

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