

ASSESSING AND MANAGING PSYCHOSOCIAL PROBLEMS OF TYPE 2 DIABETES- A NURSING PERSPECTIVE

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Abstract: A sample of 200 patients were studied, 102 men and 98 women. 65% were Hindus, 86% were married 70% were from nuclear families and 60% were literate. Nearly 70% were on Oral medication only, 80% had no side effects, 90% were regular in medications and claimed to be in good health. However, almost all patients had some psychosocial problem; nearly one-third were depressed, afraid and worried. More than half the patients, sought help from nurses for education, counseling, dietary advice and advice on better medical care. There were no significant differences by age or gender. Psychosocial problems complicate medical therapy and need systematic attention especially by nurses in education, counseling and coping skills. Further research is needed on best methods of intervention and on the need for continuing nursing education to offer support to diabetic patients for maintaining a high quality of life despite various obstacles and constraints.

Keywords: Type 2 Diabetes, Psychosocial issues, Nursing Roles, India.

Introduction

Over the past few decades, the nursing profession has taken great strides in assuming a range of leadership roles in developed countries, but not so much in developing countries such as India (1). Unless Indian nurses assume critical roles as members of the health care team not just passively supporting medical therapies but in taking over specific managerial issues such as addressing the psychosocial problems follow-up, etc., so that they do not become irrelevant (2). Given the meager resources for optimal and timely medical care in India, there are abundant opportunities for nurses to assume leadership in the management of chronic diseases where socio cultural and economic factors compound the medical problems. Due to several constraints, Indian nurses may not have performed well in demonstrating how their training and skills could greatly improve the present medical care (3), and their vast potential must be utilized. One such area is in Diabetic nursing care, which is well covered in the training curriculum of nurses (4). The World Health Organization adopted the theme of 'Diabetes' in 2016 was "Diabetes" in view of emerging global epidemic (5). This affords an excellent unique opportunity for nurses to play a significant role, both in assessment and

management of psychosocial problems in Diabetes and thus complementing the medical care (6). The most common psychological disorders experienced by adult Type 2 diabetic patients are diabetes-related distress and depressive disorders (7,8). In addition, patients face many other psychosocial problems such as anxieties and worries about themselves and their families, fear and economic difficulties, hopelessness and helplessness due to their domestic status (9, 10). It is in the assessment and implementation of suitable interventions such as counseling, education, advice, etc., those nurses, who spend more time with patients can help. Thus, the first step in any meaningful intervention is to assess the needs and problems. Hence, a study was carried out to determine the psychosocial problems among adult type 2 diabetes patients, and ascertained the feedback from patients themselves on how the nurses can help them in their management.

Material and methods

The study was conducted at Dr. Ram Manohar Lohia Hospital & Atal Bihari Vajpayee Institute of Medical Sciences; New Delhi on all new outpatients above 15 years diagnosed as type 2 diabetics. Qualified graduate nurses were trained to carry out an in-depth interview after obtaining informed consent, using a specially prepared research schedule containing an inventory of all major psychosocial problems, underlying reasons and feedback on how nurses can help. Data were computerized and analyzed by Statistical software. After an extensive search of existing literature on psychosocial problems in diabetic patients, a research schedule was developed and used in depth interview of the diabetic patients. The proforma contained relevant demographic, social, economic and medical history of each patient, followed by an enquiry of common psychosocial problems faced, how they were managed and ended up with ascertaining from them how nurses could assist them further. The research proforma was tested in a pilot study and finalized after validation with experts. The study was carried out on all new type 2 diabetic patients who attended the out-patient department during April-June 2018. Interview was carried out by the nurses after establishing rapport, and obtaining their informed consent. The interview was carried out in a confidential manner in a comfortable setting in the OP department. Each interview took about half-an-hour to 45 minutes. All data were entered onto Microsoft excel sheets, checked for completeness and clarity, and analyzed using SPSS software; assuming the overall burden of psychosocial issues as 60%, with an alpha of 5%, power of 90%, and a precision of 20%, the minimum sample size works out to 170 patients. Allowing for any no response, it was aimed to study 200 patients.

Results

A total of 200 patients with type 2 diabetes were interviewed of whom 102 were men and 98 women. There were 161 Hindus, 19 Christian and 20 Muslims. 172 were married and 28 were single. 141 were from nuclear families and 59 from joint. The average family size was 4-5. Among men, 23 were illiterate and among women 38. 128 had their own house and 72 in rented houses.

Table 1: Age and Gender Distribution of Diabetic Patients

Age (years)	Men	Women	Total
Less than 50	27	27	54
50 to 60	36	30	66
More than 60	39	41	80
All ages	102	98	200

139 patients were on Oral medication only, 26 were having Insulin only, and 33 were on both. 2 had discontinued medicines. 155 patients had no side effects, 43 had hypoglycemia, 1 had giddiness and 1 had gastritis

Table 2: Psychosocial Issues among Diabetic Patients by Gender

Psychosocial issues	Men		Women		All		Statistical significance of difference between men and women p
	No.	Percent	No.	Percent	No.	Percent	
Anger	21	20.6	15	15.3	36	18.0	0.332
Anxiety	21	20.6	21	21.4	42	21.0	0.882
Depression	37	36.6	29	29.6	66	33.0	0.317
Distress	20	19.6	14	14.3	34	17.0	0.317
Embarrassed	20	19.6	11	11.2	31	15.5	0.101
Fear	30	29.4	37	38.1	67	33.5	0.211
Grief	32	31.4	16	16.3	48	24.0	0.013**
Hopeless	27	26.5	27	27.8	54	27.0	0.865
Stressed	22	21.6	19	19.4	41	20.5	0.704
Worried	27	26.5	32	32.7	59	29.5	0.337

**Statistically significant, $p < 0.02$

Table 3: Feedback from Diabetic Patients by Gender on Role of Nursing

Role of Nursing	Men		Women		All		Statistical significance of difference between men and women p
	No.	Percent	No.	Percent	No.	Percent	
Education	52	50.0	45	45.9	97	48.5	0.472
Counseling	50	49.0	47	47.9	97	48.5	0.881
Better							
Medical Care	54	52.9	52	53.1	106	53.0	0.982
Dietary advice	40	39.0	39	39.8	79	34.5	0.936
Coping skills	40	39.0	32	32.7	72	36.0	0.332
Follow up advice	41	40.2	41	42.3	82	41.0	0.810

There were 4 Vegetarians and the remaining 196 were Non vegetarians. 180 were regular in medications and only 20 were Irregular. 64 claimed to be in good health, 116 Fair, and 20 stated they were in poor health. The broad age-groups by gender is shown in Table 1. About half the patients are women. Nearly 75% are 50 years or more, and 40% are above 60 years. The Psychosocial issues by gender of patients are given in Table 2. Nearly one-third of the patients are depressed, afraid and worried. While more men are depressed compared to women; more women have expressed fear and worry. None of the gender differences attain statistical significance, except grief, where men showed significantly more grief than women. During the interview, the nurses probed the reasons for psychosocial problems and found that most were due to incomplete knowledge, lack of coping skills and inadequate communication. The feedback from the patients by gender on the role of nurses in handling their psychosocial issues are presented in Table 3. There were no statistically significant differences between men and women. Nearly half the patients, both men and women, have expressed a need from nurses for education, counseling and advice on better medical care. A significant number also expected the nurses to offer dietary advice and provide them with necessary coping skills. Further analyses by age showed no significant differences in any of the psychosocial factors and in their response to role of nurses.

Discussion

In their first Global report on Diabetes, the WHO highlighted the emerging epidemic of diabetes especially in the Low and Middle Income countries in their first global report (6) quoting an estimated 422 million adults living with diabetes in 2014, compared to only 108 million in 1980. The report also stated that global prevalence (age-standardized) of diabetes had nearly doubled since 1980, rising from 4.7% to 8.5% in the adult population, and further, over the past decade, diabetes prevalence has risen faster in low and middle-income countries than in high-income countries (5). Inevitably, with every case of diabetes, the psychosocial problems will compound the medical issues, resulting in deteriorating quality of life of affected persons, an unnecessary and preventable complication due to a gross neglect of holistic care. The findings from the research (Table 2) sound a warning bell to all health professionals, especially to nurses, to take cognizance of this fact in addressing these issues as part of optimal nursing care. The patients have also strongly endorsed the role nurses can play in managing their problems (Table 3). Psychosocial problems among type 2 diabetic adult patients vary significantly among both developed and developing countries (8,9,11), and are similar to the findings from this study. These issues arise from the time the diagnosis is made, and continue during the long period of therapy, while they are on a variety of drugs, dietary restrictions and face iatrogenic complications. A high proportion of type 2 diabetic patients suffer from multiple psychosocial disorders that interfere with control of diabetes and reduce the quality of life (12). Most of the psychosocial problems such as anger, grief, fear, stress and hopelessness arise out of ignorance, misconceptions, inadequate communications and sometimes due to side-effects of drugs. While evidence from India is scarce, a few smaller studies highlight similar high levels (13), especially among women (14). Despite such evidence, the psychosocial problems are largely ignored or poorly managed. Despite best therapy, many patients are concerned about their health condition, and the possibility of developing complications, which may lead to emotional stress, a condition referred to as diabetes-related distress defined as an emotional reaction to the various situations the patient must deal with on an everyday basis, which may have a temporary or permanent negative impact, in the form of negative feelings, such as irritability, sadness, and fear related to the difficulty in controlling the disease. (15,16) Diabetes-related distress may have a significant influence on glycemic control. Distress may act directly to deregulate stressor hormones or indirectly, as a higher emotional burden reduces compliance with diabetes mellitus treatment regimes. Diabetes-related distress is often confused with depression, but although it is closely

related to depression, it is important to distinguish between them if adequate treatment is to be provided (13) Beliefs about diabetes are known to play an important role in self-management, yet little is known about the sociocultural context in shaping beliefs (15). Nurses must become familiar with these aspects before counseling and providing necessary coping skills.

In a study aimed to explore the influence of sociocultural context on illness beliefs and diabetes self-management in British South Asians, it was found that Diabetes-related illness beliefs and self-management appeared to be shaped by the sociocultural context (7).The authors concluded that better understanding of the contextual determinants of behaviour could facilitate the development of culturally appropriate interventions to modify beliefs and support self-management in this population. With diversity in culture it has become very essential for health care providers to understand cultural differences of an individual as one's behaviour [diet, physical activity, and thoughts] is result of its beliefs, values and attitude which intervenes in dealing with diabetes. Thus lack of knowledge about cultural variables can aggravate the disease.(17) Over the last few years, a greater understanding of the non-medical factors contributing to poor diabetes management have led to calls to move away from a purely medical model toward a greater emphasis on the psychosocial aspects of diabetes.[12] The Diabetes, Attitudes, Wishes and Needs (DAWN) studies, [18] undertaken in 13 high-middle-and low income countries, found that both people with diabetes and their health-care professionals reported that there was insufficient care and support to meet the psychological and educational needs of people with diabetes. The adverse psychosocial sequel of diabetes have been recognized previously in international guidelines that describe the standards of psychological care that people with diabetes should expect. The lessons from the original DAWN study contributed to position statements from the American Association of Diabetes Educators on psychological issues of diabetes management, the chronic care model, to the expanded role of pharmacists in Type 2 diabetes management and the US national standards for diabetes self-management education [4]. Nevertheless despite the progress made over the last decade, the DAWN-2 study clearly indicates that there is still a long way to go. The health-care professional survey undergirds the concerns of professionals regarding diabetes health-care provision, self-management and training. Among the members of the health team, the nurse seems the most suitable to undertake the responsibility to complement and assume leadership roles in addressing the psychosocial issues of type 2 diabetes patients (19). Nearly half the patients regardless of gender or age, have sought

education and counseling from the nurses (Table 3). The role of nurses entails a careful assessment of their knowledge and attitudes before embarking on proper education and counseling. The main question concerns the willingness and readiness of the nurses to take up to the challenge. Even if they have the knowledge on diabetes, are they aware of the psychosocial problems and methods of effectively managing them. Further, would they be encouraged and given the opportunity to assist the patients (20). Even though the present study was done on a relatively small sample, it has highlighted the major problems and how nurses can help. Further research is needed on patients at other health care centers and in the community. There is also a need for properly designed and implemented continuing nursing education to offer up-to-date information and support to diabetic patients for maintaining a high quality of life despite various obstacles and constraints.

References

- [1] Shaw RJ, McDuffie JR, Hendrix CC, et al. Effects of Nurse-Managed Protocols in the Outpatient Management of Adults with Chronic Conditions [Internet]. Washington (DC): Department of Veterans Affairs (US); 2013 Aug. Available from: <https://www.ncbi.nlm.nih.gov/books/NBK241377/>
- [2] Other Side of Moon (2015). Respect for Nursing Professional: Silence must be heard. *Indian Heart Journal* 67: 413–415
- [3] Malik N, Dhar, RL, Handa, SC (2016). Authentic leadership and its impact on creativity of nursing staff: A cross sectional questionnaire survey of Indian nurses and their supervisors. *Int J Nurs Stud.* 63:28-36.
- [4] Brenda M (2011). Nursing Management-Diabetes Mellitus. Chapter 49, pp1218-1284 in *Medical –Surgical Nursing Vol.2, 8th edition*, Lewis SL et al (eds), Mosby, Missouri, USA
- [5] WHO (2016). *First Global Report on Diabetes*. World Health Organization, Geneva
- [6] Pearce MJ, Pereira K, Davis E (2013). The psychological impact of diabetes: a practical guide for the nurse practitioner *J Am Assoc Nurse Pract.* 11: 578-83.
- [7] Sarita B Fatema J, Najmul I (2013). South Asian women with diabetes: Psychosocial challenges and management: Consensus statement *Indian J Endocrinol Metab.* 17: 548–562.
- [8] Skinner TC, Carey ME, Craddock S, Dallosso HM, Daly H, Davies MJ (2010). Depressive symptoms in the first year from diagnosis of Type 2 diabetes: results from the DESMOND trial. *Diabet Med.* 27: 965–967.

- [9] Chew BH, Vos R, Mohd-Sidik, Rutten GE (2016). Diabetes-Related Distress, Depression and Distress-Depression among Adults with Type 2 Diabetes Mellitus in Malaysia. *PLoS One*. 11:e0152095. doi: 10.1371/journal.pone.0152095. eCollection 2016
- [10] Richard I. G. Holt and Sanjay Kalra (2013). A new DAWN: Improving the psychosocial management of diabetes *Indian J Endocrinol Metab*. 17: S95–S99.
- [11] Zhu Y, Fish AF, Li F, Liu L, Lou Q (2016). Psychosocial factors not metabolic control impact the quality of life among patients with type 2 diabetes in China. *Acta Diabetol. Jan* 11. [Epub]
- [12] Wardian J, Sun F (2014). Factors Associated with Diabetes-Related Distress: Implications for Diabetes Self- Management. *Soc Work Health Care*. 53: 364–381.
- [13] Fisher L, Gonzalez JS, Polonsky WH (2014). The confusing tale of depression and distress in patients with diabetes: a call for greater clarity and precision. *Diabet Med*. 31: 764–772.
- [14] Koch T, Kralik D, Sonnack D (1999). Women living with type II diabetes: the intrusion of illness. *J Clin Nurs*. 8: 712–722.
- [15] Mohamed R, Abdul Kadir A, Yaacob LH (2012). A study on depression among patient with Type 2 diabetes mellitus in North-East coast of Malaysia. *International Journal of Collaborative Research on Internal Medicine and Public Health*. 4: 1589
- [16] Bhowmik B, Munir SB, Hossain IA, Siddiquee T, Diep LM, Mahmood S (2012). Prevalence of type 2 diabetes and impaired glucose regulation with associated cardiometabolic risk factors and depression in an urbanizing rural community in Bangladesh: A population-based cross sectional study. *Diabetes Metab J*. 36:422–32
- [17] Sabourin BC, Pursley S (2013). Psychosocial issues in diabetes self management: strategies for healthcare providers. *Can J Diabetes*. 37:36-40.
- [18] Siminerio LM, Funnell MM, Peyrot M, Rubin RR (2007). US nurses perceptions of their role in diabetes care: results of the cross national Diabetes Attitudes Wishes and Needs (DAWN) study *Diabetes Educ*. 33:152-62
- [19] Lawless ME, Kanuch SW, Martin S, Kaiser D, Blixen C, Fuentes-Casiano E, Sajatovic M, Dawson NV (2016). A Nursing Approach to Self-Management Education for Individuals With Mental Illness and Diabetes. *Diabetes Spectr*. 29:24-31.
- [20] Davis R, Turner E, Hicks D, Tipson M (2008). Developing an integrated career and competency framework for diabetes nursing. *J Clin Nurs*. 17:168-74.