

EVALUATION OF DIABETES RELATED DISTRESS AND ITS PREVELANCE IN PATIENTS WITH TYPE 2 DIABETES MELLITUS

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Abstract

Background: Diabetes Mellitus (DM) is one of the most challenging public health problems in 21st century. Aims at examining the diabetes related distress among adults living with type 2 diabetes mellitus.

Methods: We conducted a study in Mahatma Gandhi Medical College on 150 patients who were known cases of type 2 diabetes mellitus, to screen and account for diabetes related distress according to the DDS 17 scale.

Results: In our study, 72.00% diabetic patients had no distress, 26.00% patients had moderate distress and only 2.00% patients high distress.

Conclusion: We concluded that prevalence of diabetes related distress in our study was less.

Keywords: DM, Diabetes related distress, Prevalence.

Introduction

Diabetes Mellitus (DM) is one of the most challenging public health problems in 21st century. Many community-based studies have shown higher prevalence of diabetes distress than other mode depressive disorders even though they have a component from distress. Significant relationship was present between HbA1c and diabetes distress but not with depressive disorders.¹ Research shows that many patients with diabetes, diagnosed to have depression are actually facing distress.²

Being content-related, specific interventions can easily be linked to the source of diabetes distress, opening up an opportunity to prevent or delay further morbidities. Therefore, this study aims at examining the diabetes related distress among adults living with type 2 diabetes mellitus.

Materials and Methods

Type of Study: A Hospital based Study

Plan of Study:

- Inclusion Criteria

– Patients Diagnosed with Type II Diabetes Mellitus Above 18 years of Age.

- Exclusion Criteria

- Patients with Type 1 diabetes
- Patients newly diagnosed with diabetes.
- Gestational Diabetes
- Steroid Induced Diabetes
- Patients with co-morbidities – Hypothyroidism and Chronic Renal Failure
- Patients with history of Substance abuse.
- Patients less the 18 years of age

Statistical Analysis:

Data collected were analyzed by frequency, percentage, mean, standard deviation (S.D), 't' test and chi-square tests.

Results

Table 1: Distress level wise distribution of patients

Diabetes related distress	Patient	
	No	%
No distress	72	72.00
Moderate	26	26.00
High	2	2.00
Total	100	100.00

In our study, 72.00% diabetic patients had no distress, 26.00% patients had moderate distress and only 2.00% patients high distress.

Table 2: Emotional burden wise distribution of patients

Emotional burden	Patient	
	No	%
No distress	62	62.00
Moderate	38	38.00
High	0	0.00
Total	100	100.00

In our study, 62.00% diabetic patients had no emotional burden and 38.00% patients had moderate emotional burden.

Discussion

Diabetes is a growing challenge in India. Due to continued westernisation, the scenario is getting worse owing to poor adaptation of western ideas and food habits. Tons of people are diagnosed as diabetics daily and lack of proper awareness about the nature and progression of the disease leave them clueless.

Therefore, any support that a patient can get is crucial, from the acceptance of diagnosis to long term management. Diabetes takes a toll on the patient, not just physically but also mentally. And this aspect has gone ignored for way too long. Therefore, it's time to get ahead of it.

This means that any support or help that we can get to our diabetes patients is important and needed because it may very well change the outcome of the illness.

But initiative has to be taken to assess the distress that the patient faces, in order to come up with adequate strategies to tackle it.

62.00% of the patients had no Emotional distress, but 38.00% patients had moderate Emotional distress. Emotional Distress/Burden were defined by various questions that focused on how much diabetes was interfering with the daily life of the individual and whether or not it was a significant emotional obstruction in the ability of the patient to go on with his daily abilities. Emphasis was on the emotions like fear, anger or sadness that the patient experienced during the course of the disease.

Allbright K. Simon *et al*³ conducted a cross sectional community-based study of 250 adults with type 2 diabetes mellitus, residing in the urban field practice areas of a teaching hospital in Pathanamthitta, South Kerala. The prevalence of (moderate to high level) diabetes related distress (DRD) among them was found to be 13.2% with regimen related being the highest among the subscales. This is consistent with our study, as we also found that regimen related distress was the second highest type of distress faced by the patients. But we observed that emotional distress was the most common distress experienced by the patients⁴⁻⁵

Prevalence of distress in other Asian countries was reported to be higher, ranging from 19-23%.⁶⁻⁷

A study conducted in South Africa revealed that 44% of subjects suffered from moderate to high levels of distress

and also higher scores of emotional burden dimension and regimen distress, which is in congruence with our study results.⁶

A North Indian study by Gahlan, *et al* done at PGIMS, Rohtak showed that the prevalence of distress was 18% with the highest distress being the emotional distress.⁹

A South Indian hospital-based study reported a very low distress of 2.4% and majority who experienced diabetes distress were found to have poor glycaemic control.¹⁰

Studies from India showed that the distress ranged from 30 to 45%.^{11,12} The wide variations in results may be attributed to the different rating scales used and to the fact that the present study sample was derived from an OPD based population. The varied prevalence could be due to different age groups involved in the study and the availability of diabetes management programmes.

The magnitude of depression was found to be almost similar in males and females in our study. Age and gender were not found to be associated with diabetes related distress in the study, whereas mixed results were reported in different regions. Younger age and female gender were significant factors in several studies.^{11,12} Though not statistically significant, distress was found to be higher in unmarried participants which was similar to the findings in another South Indian study.⁸

This is in contrast to the female preponderance most studies have reported wherein they have reported a two-fold higher risk of depression in women as compared to men.^{13,14}

Conclusion

Diabetes related distress is not much explored in India, and this study was the first of its kind to be done in Rajasthan, India. Focus has been on the prevalence of depression and its effects on diabetes in India. But the effects start before the depression sets in, in the form of everyday difficulties that the patient may suffer which in the end causes distress. This aggravated and accumulated distress may lead to issues like depression down the road. Therefore, Assessment, Acceptance and Action are the 3 A's we need to focus on. Diabetes related distress is the preventive checkpoint for the progression of the disease and intervention at this time will lead to better results for the physician and for the patients. Early control and action will enable the patients to get better hold of their blood sugar level with support from their family members and physicians. decreasing the need for escalation of therapy

and delay/prevent the appearance of long term complication of diabetes

Bibliography

1. Mafomekong A, Yauba S, Semeeh A, James J. Awareness of diabetes mellitus among diabetic patients in the Gambia: a strong case for health education and promotion. *BMC Public Health*. 2013;13:1124. <http://dx.doi.org/10.1186/1471-2458-13-1124>PMid:24304618.
2. Deepa M., Bhansali A., Anjana R. M., et al. Knowledge and awareness of diabetes in urban and rural India: The Indian Council of Medical Research India Diabetes Study (Phase I): Indian Council of Medical Research India Diabetes 4. *Indian J EndocrinolMetab*. 2014 May-Jun; 18(3): 379–85.
3. Simon AK, Vargese SS, Mathew E, Akshay KR, Abraham J. Diabetes related distress in adults with type 2 diabetes mellitus: a community based study. *Int J Community Med Public Health* 2019;6:151-5.
4. Dogra P, Prasad SR, Subhashchandra BJ. Assessment of depression and diabetes distress in type 2 diabetes mellitus patients in a tertiary care hospital of South India. *Int J Res Med Sci* 2017;5:3880-6.
5. Majed O. Aljuaid , Abdulmajeed M. Almutairi, Mohammed A. Assiri. Diabetes-Related Distress Assessment among Type 2 Diabetes Patients. *Journal of Diabetes Research*. Volume 2018, Article ID 7328128, 10 pages
6. Zhou H, Zhu J, Liu L, Li F, Fish AF, Chen T, et al. Diabetes-related distress and its associated factors among patients with type 2 diabetes mellitus in China. *Psychiatry Res*. 2017;252:45–50.
7. Tan ML, Tan CS, Griva K, Lee YS, Lee J, Tai ES, et al. Factors associated with diabetes-related distress over time among patients with T2DM in a tertiary hospital in Singapore. *BMC Endocrine Disorders*. 2017;17:36
8. Ramkissona S, Pillaya BJ, Sartorius B. Diabetes distress and related factors in South African adults with type 2 diabetes. *J Endocrinol Metabol Diabetes South Africa*. 2016;21(2):35–9.
9. Gahlan D, Rajput R, Gehlawat P, Gupta R. Prevalence and determinants of diabetes distress in patients of diabetes mellitus in a tertiary care centre. *Diabetes MetabSyndr*. 2018;12(3):333-6.
10. Sekhar STVD, Kodali M, Burra KC, Muppalla BS, Gutta P, Bethanbhatla MK. Self Care Activities, Diabetes Distress and other Factors Affecting Glycemic Control in a Tertiary Care Teaching Hospital in South India. *J Clin Diagnos Res*. 2013;7(5):857-60
11. Raval A, Dhanaraj E, Bhansali A, Grover S, Tiwari P. Prevalence and determinants of depression in type 2 diabetes patients in a tertiary care centre. *Indian J Med Res*. 2010;132(2):195-200.
12. Avasthi A, Grover S, Bhansali A, Kate N, Kumar V, Das EM et al. Presence of common mental disorders in patients with diabetes mellitus using a two-stage evaluation method. *Indian J Med Res*. 2015;141(3):364
13. Yu S, Yang H, Guo X, Zheng L, Sun Y. Prevalence of depression among rural residents with diabetes mellitus: a cross-sectional study from Northeast China. *Int J Environment Res Public Health*. 2016;13(6):542.
14. Palizgir M, Bakhtiari M, Esteghamati A. Association of depression and anxiety with diabetes mellitus type 2 concerning some sociological factors. *Iranian Red Crescent Med J*. 2013;15(8):644-8