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## A SCOPING REVIEW: DIABETES MELLITUS AND EMOTIONAL DISTRESS

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## ABSTRACT

*Background: DD has been defined in various ways. Kreider (2017) refers to DD as an emotional state where people experience feelings such as stress, guilt, or denial that arise from living with diabetes and the burden of self-management. Aim: This scoping review aims to summarize the effects of diabetes mellitus and emotional distress. Methods and materials: Only studies published between 2017 and 2020, which is investigated discussions between diabetes mellitus and emotional distress. Only studies published between 2009 and 2019, which investigated discussions between diabetes mellitus and diabetes distress, were eligible for inclusion. studies with qualitative and quantitative designs were included Index to Nursing and Allied Health Literature (CINAHL) and Medical Literature Analysis and Retrieval System Online, also known as MEDLARS Online, google schoolars, pubmed. Results: A total 250 articles were indentified, Twenty out of these were duplicates, and a further 30 were removed due to non-relevance. Discussion: Focusing on the people living with diabetes mellitus this scoping review evaluates the features and measures of the concepts of depression, diabetes and diabetes burnout, emotional distress. Conclusion: The importance of discussing diabetes mellitus emotional distress in all study which we have included in scoping review studied related emotional distress and diabetes mellitus all the results shows most of patient where suffering from emotional distress due to unawareness regarding symptoms of diabetes burnout after the interventions some what emotional distress where decreased.*

**Keywords: Diabetes mellitus type-1 and type-2, emotional distress, diabetes burnout, self-management, diabetes distress scale -17, problem areas in diabetes scale-20, diabetes self-management education.**

## INTRODUCTION

People with diabetes with somatic symptoms, sleep disturbances, or anxiety have poor glycemic control. Psychological distress is an independent risk factor for death in patients with diabetes. and the prevalence of depression among patients with diabetes is higher than that of normal subjects in a study from Chennai. Here as the prevalence of mental distress among patients with diabetes or hypertension is 80% in urban Puducherry, and the prevalence of depression among patients with diabetes is as high as 84% in Ludhiana.<sup>1</sup>

Diabetes distress (DD) is a psychological state, found in persons with diabetes and their caregivers. This is a state which causes significant emotional distress, however it fails to meet the diagnostic criteria for major depressive disorder (MDD). The 2017 Standards of Medical Care in Diabetes, published by the American Diabetes Association, mentions the need to assess and manage DD to improve self-care and glycemic control and reduce cardiovascular risk and all-cause mortality.

DD has been defined in various ways. Kreider (2017) refers to DD as an emotional state where people experience feelings such as stress, guilt, or denial that arise from living with diabetes and the burden of self-management. Gonzalez et al. (2011) describe DD as the unique, often hidden emotional burdens and worries that are part of the spectrum of patient experience when managing a severe, demanding chronic disease like diabetes. Fisher et al. (2012) define DD as significant emotional reactions to the diagnosis, threat of complications, self-management demands, or unsupportive social structures surrounding diabetes. DD, according to Fisher et al., (2012) refers to fears of complications, worries about hypoglycemia and the variety of stresses, strains, and concerns people with diabetes have on a day-to-day basis. Describing the term as such makes it more specific and alive to individuals who live with diabetes. He also highlights the existence of DD in We define DD as an emotional response characterized by extreme apprehension, discomfort, or dejection, due to perceived inability to cope with the challenges and demands of living with diabetes. Our definition, mentioned above, draws from the conceptualization of DD as proposed by Fisher. family members who care for persons with diabetes.

Community-based studies reveal that DD may occur in up to 45% of persons with type 2 diabetes mellitus. DD is more frequent in younger people, and in insulin-users. Other data suggest that 39% of Type diabetes mellitus<sup>2</sup>

AIM: This scoping review aims to summarize the effects of diabetes mellitus and emotional distress

## MATERIALS AND METHODS

The Preferred reporting items for systematic reviews and meta-analyses (PRISMA) checklist was used for this study. More specifically, the PRISMA checklist for scoping review was used to identify barriers and enabling factors for discussing SSH. Scoping review helps to summarize vital evidence on a topic without necessarily going through the process of formal systematic review.

Only studies published between 2017 and 2020, which investigated discussions between diabetes mellitus and emotional distress. Only studies published between 2009 and 2019, which investigated discussions between diabetes mellitus and diabetes distress, were eligible for inclusion. Due to the interest to get a broader picture, eligibility was not limited to any geographical area. The exclusion criteria applied were based on the study population, i.e., all studies focusing on only diabetes mellitus patients. To capture a wider range of studies, studies with qualitative and quantitative designs were included, while literature reviews were excluded. A search was conducted in two databases to find relevant articles i.e., Cumulative Index to Nursing and Allied Health Literature (CINAHL) and Medical Literature Analysis and Retrieval System Online, also known as MEDLARS Online, Google Scholar, PubMed.

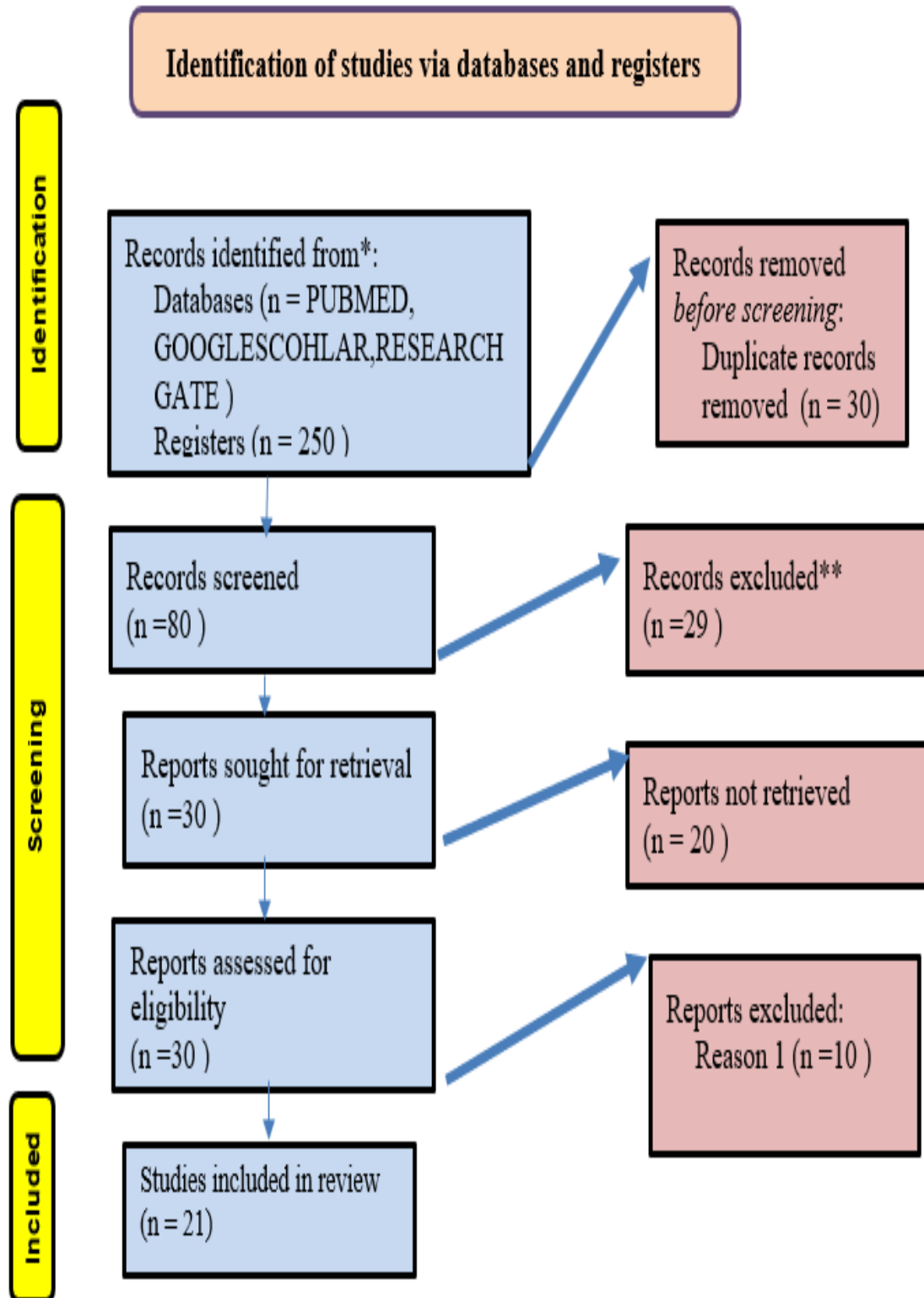
The search was conducted between using relevant search terms such as diabetes distress and emotional distress on PubMed, another search Google Scholar.

## RESULTS

A total of 250 articles were identified, twenty of these were duplicates, and a further 30 were removed due to non-relevance. The assessment was via scoring individual articles on parameters such as a level of systematic errors, transferability, and precision, among others. Only nine articles met the cut-off for medium and high quality and are included in this review (see figure 1). Relevant information extracted from the articles includes objectives, study population, location of the study, research question, methods, and interpreted to identify barriers and enabling factors related to health care professionals.

Table 1 shows a total of nineteen included in review all most study where quantitative studies. Many of the survey instruments used in quantitative studies. Many of the survey instruments used in quantitative studies covered areas such as participants demographics, design, the interview guides included diabetes distress scale (DDS)

### PRISMA FLOW CHART



**SUMMARY OF THE STUDIES INCLUDED IN THE REVIEW**

<b>Author(year)</b>	<b>study location</b>	<b>Aim</b>	<b>study design</b>	<b>participants</b>
Cassidy devarajoon 2017	Malyasia	To Assess the impact on diabetes mellitus type-2 and self effiancy and practices among patient with diabetes mellitus	Cross-Sectional study	Participant where being malysian older than 18 years having diagnosis of type-2 diabetes mellitus
Sanjay kalra 2018	Pune,India	To provide overview on psychological needs among people with diabetes mellitus	Randomized control study	Patient with diabetes mellitus
Alida Ramaj 2019	Albania	It was evaluate effect of diabetes education on emotional distress in type-2 diabetes mellitus patients treated with oral medications	Experimntal study	200 patient where enrolled in the study with type-2 diabetes mellitus
Majed O.Aljuaid 2018	Saudi arabia	To assess the diabetes distress among diabetes mellitus patient	A cross-sectional study	A total 509 patient where included in study
Mrs.Perpetua fernandes 2019	India	To assess the psychosocial distress experienced by the	A Cross-sectional descriptive study design	Patient with type-2 diabetes mellitus

		people with type-2 diabetes mellitus		
Margaret Amankwah poku 2020	Ghana	To assess the psychosocial distress can act as a barrier to diabetes self care management and thus compromise diabetes control	Cross-sectional study	Patient 162 who where diagnosed with type-2 diabetes mellitus with last one year
Ahmed zaki alawani 2020	Saudi-Arabia	The aim of these study was assess the metabolic control in diabetes patient with emotional distress attending primary health center	Non-experimen tal study	Patient adult 194 patient with diabetes mellitus
Asoyne Christian chinedu 2023	Nigeria	To Find out the diabetes distress among patient with diabetes mellitus	Non-experimen tal study	Patient with diabetes mellitus
Belonwu-M.onyenekwe2020	South east nigeria	The purpose of this study was to assess the prevalance and level of diabetes distress and associated factors among adult diabetic patient	Cross-sectional study	38male/72fem ale
Esti Jturalde 2019	Standford university school of medicine	To aim to assess managing diabetes emotional reactions	Cross-Sectional study	246 Adolescents

		specific to managing diabetes		
Joane vecili cechetti et al 2020	Brazil	To aim this study aimed to analyze the association between emotional distress and glycated hemoglobin values in adolscents and young adult with type 1 diabetes mellitus.	Cross-Sectional study	100Adolescent s and young adult with Type-1 diabetes mellitus
Surbhi Gupta 2021	Punjab,India	To aim assess the work- related overall stress among empolyed person with type-2 diabetes mellitus	Cross-Sectional study	133 participants
Elena-Gomez-pimiento 2019	Mexico	To aim of present study were to evaluate the impact of emotional distress in the quality of life individuals with diabetes and to investigate the demographic and clinical characteristics	Longitude study	422 individuals with current diagnosis of type-2 Diabetes mellitus



		associated with emotional distress of living with diabetes in Mexican population ,		
Sparse	Iran	The present study aim to determine the study of diabetes distress and its clinical determinates in type-2 diabetes patients	Descriptive- Analytical Study	220 Patient with type-2 diabetes mellitus
Fatemah Akbari 2022	Iran	To aim to assess equation model of effect of diabetes distress and self care activites on quality of life type-2 Diabetes mellitus	Cross-sectional study	380 participants
Prerna Dogra 2017	Karnataka, Mysuru	Present study where to estimate the magnitude of depression and diabetes among type-2 diabetes mellitus tertiary care hospital of south india	Descriptive study	250 participants

M.Anjali 2023	Rishikesh, India	This study aimed to assess the effectiveness of diabetes self-management education in comparison with usual diabetes care in improving glycemic control and diabetes related distress	Parallel randomized controlled trial	Total 106 participants were recruited for both intervention and control groups with 53 participants each.
Ravish Ranjan 2023	Haryana	The study to aim assess the prevalence of diabetes distress among T2DM Patients in Jhajjar district district of Haryana	Cross-sectional study design	Total 503 patient where included in study
Hemavathi P 2018	South India	The aim of this study was to assess the prevalence of DRD among subjects with type-2 diabetes using diabetes distress scale-17 to see its	Cross-sectional study design	Total 400 TDM patient where included in study 200 Men 200 women age 25to65years who visited in

			correlation with glycemic control and treatment modalities		tertiary care centre.
Ratnesh Sinha 2019	Karnataka, India		The objectives of the study was to find the burden and identify the predictors of DD in adult Type-2 diabetes mellitus patient	Cross-sectional study	Total 250 patient where included in the study
Prasanth Sankar 2018	South India		Aim of the study assess the DD and its association with various parameters in patients with T2DM	Cross-Sectional study	262 patient where included in the study

## DISCUSSION

Our findings show that despite the diverse study context for the studies included in this scoping review and their peculiarity (e.g., diabetes mellitus, emotional distress, diabetes mellitus type 1 and 2 having the different emotional symptoms), the barriers and enabling factors for discussions were similar. Findings reveal enabling factors that can counteract common barriers to discussing diabetes and emotional distress in health care sectors.

Focusing on the people living with diabetes mellitus this scoping review evaluates the features and measures of the concepts of depression, diabetes and diabetes burnout, emotional distress. This study characterizes the psychosocial impacts of type-1 diabetes mellitus as well type-2 diabetes mellitus that all study shows patient suffers from anger, denial, disturbance in thinking, fear of hypoglycaemia, fear of living with diabetes mellitus, due to all these symptoms patient having diabetes burn out.

We found most of studied the concept between diabetes and emotional distress which shows both type-1 and type-2 diabetes mellitus having emotional distress having some of developing symptoms and the managements of diabetes associated emotional distress .

## CONCLUSIONS

The importance of discussing diabetes mellitus emotional distress in all study which we have included in scoping review studied related emotional distress and diabetes mellitus all the results shows most of patient where suffering from emotional distress due to unawareness regarding symptoms of diabetes burnout after the interventions some what emotional distress where decreased. Therefore ,given the increasing diversity in patient and nursing population and that the principles of care include encountering everyone on their own terms ,norms and critical approach is vital in nursing practice and nursing education.

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**Conflicts of Interest:** The authors declare no conflict of interest.

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