Factors associated with Diabetes-Related Distress among Primary Care Patients with poorly controlled Type 2 Diabetes

Polyclinics
SingHealth

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Aim

Diabetes-related distress (DRD) is a negative emotional state related to the burden of living with diabetes. It is associated with poorer glycemic control and quality of life. This cross-sectional study aimed to examine the prevalence of DRD and its associated factors among patients with poorly controlled type 2 diabetes (T2DM) managed in primary care in Singapore. The factors examined included demographics, diabetes history, medical co-morbidities, mood disorders and social history.

Methodology

Patients with HbA1c of 8% or more were recruited from SingHealth Polyclinics. A self-administered questionnaire and a retrospective health record review was performed. Cases of DRD were identified with the Problem Area In Diabetes (PAID) scale. Anxiety and depression were screened using GAD-7 and PHQ-9, while EQ-5D-5L was used to evaluate quality of life (QOL). Medical records were examined for clinical data, including HbA1c, comorbidities and medications.

Result

356 subjects were analysed. The prevalence of DRD was 17.4%. Significant factors associated with DRD included age, ex-smoker status, history of DM foot and nephropathy, and history of hypoglycemia symptoms. There was a higher proportion of DRD among those who screened positive for anxiety (72% vs 28%, p<0.01) and depression (78.9% vs 21.1%, p<0.001) compared to those who screened negative. Those with DRD tended to feel anxious about their weight, and also find that their diabetes medications interfere with their normal life.

Conclusion

1 in 6 patients with poorly controlled diabetes had DRD, with ex-smokers, those with history of DM foot, DM nephropathy and previous hypoglycemia symptoms, and those with depressive or anxiety symptoms being most at risk. These findings can guide a targeted approach to screening for DRD among the at risk group. Needs analysis of the at-risk population, and a review of current skills and services to address DRD may help our patients with diabetes achieve better quality of life.

	Mean (SD)	DRD No (%)	*p*-Value
Total	356 (100.0)	62 (17.4)	
Age	58.6(9.5)	55.2(9.8)	*0.002*
Smoker			*0.014*
Non-smoker		52(18.6)	
Ex-smoker		8(26.7)	
Current smoker		2(4.3)	
Experience symptoms of low blood sugar			*0.006*
None		38(14.3)	
At least once every few months		24(27)	
DM foot ulcers and / or lower limb amputation			*0.026*
Yes		1(20)	
No		61(17.4)	
Nephropathy			*0.022*
Yes		49(20.7)	
No		13(10.9)	
GAD-7 score			*0.001*
>10		18(72)	
PHQ-9 score			*0.001*
>10		15(78.9)	
Anxious about body weight			*0.001*
		41(24.8)	
My diabetes medications interfere with their normal life			*0.001*
		37(32.5)	