



CODEN [USA]: IAJ PBB

ISSN: 2349-7750

**INDO AMERICAN JOURNAL OF
PHARMACEUTICAL SCIENCES**<http://doi.org/10.5281/zenodo.2280574>Available online at: <http://www.iajps.com>

Research Article

**A CROSS-SECTIONAL RESEARCH TO ANALYZE THE
DEPRESSION PROPORTION AMONG PATIENTS DIAGNOSED
WITH DIABETES WITH RESPECT TO AGE, GENDER,
MONTHLY INCOME AND DISEASE DURATION****¹Dr. Sana Zahid Maryam, ²Dr. Hira Javed, ³Dr. Rehman Sarwar**¹Pmdc 93231-P, BHU Chak No. 44/2-L, Okara²Pmdc: 93180- P, DHQ Hospital Narowal³MO, Municipal Dispensary Thanewala Bazar Gujranwala**Abstract:**

Objective: The objective of the research was to analyze the percentage of depression in diabetic patients represented at Allied Hospital, Faisalabad.

Materials & Methods: The design of the research was cross-sectional, carried out at the Medicine Department of Allied Hospital, Faisalabad from February to July 2017. The number of patients enrolled for research was one hundred and ninety-six as well as carried out depression assessment.

Results: The average age of the enrolled patients was (53.35 ± 6.71). The number of male and female patients in research was eighty-nine (45.41%) and one hundred and seven (54.59%) respectively. The huge number of patients (54.41%) are associated with the higher social economic class. Researcher diagnosed depression in forty-seven (23.98%) patients, as well as one hundred and forty-nine patients, was clear from depression.

Conclusion: The research determined that dominance of depression was much greater in patients of diabetic type II. Therefore, appropriate assessment of the co-morbid in patients of diabetic should be performed.

Keywords: Diabetic Mellitus (DM) and Socioeconomic Status.

Corresponding author:**Dr. Sana Zahid Maryam,**

Pmdc 93231-P, BHU Chak No. 44/2-L,

Okara

QR code



Please cite this article in press Sana Zahid Maryam et al., A Cross-Sectional Research to Analyze the Depression Proportion among Patients Diagnosed With Diabetes With Respect To Age, Gender, Monthly Income and Disease Duration., Indo Am. J. P. Sci, 2018; 05(12).

INTRODUCTION:

The dominance percentage of depression in common public ranging from six to seventeen percent. The finding of many types of research of literature presented depression as a major cause of bitterness and fatality [1, 2, 3]. Patients with DM have the two-fold greater hazard of depression advancement [5]. Insulin opposition, as well as hyperglycemia, might develop depression through two phenomena's, one is by its influence on indications/symptoms, such as concentration complication, difficulties of fear as well as fatigue and the 2nd, decrease in neurotropic functionality, process of inflammation and psychological pathway that advance to decrease in neuronal network plasticity and further depression. Whereas, depression while diabetic have side effects on various factors of diabetic care [6].

Moreover, coeval depression in patients of diabetic is expressively related to reduced constancy of management, substandard management of metabolism, increased ratio of difficulties, substandard life quality, higher healthcare usage, and expenditures, higher incapableness and productivity failure, huge fatality hazard, so diagnosis of depression is too significant for betterment in diabetic care because convincing management is applicable and cost-effective. In literature, there was an alteration in depression rate in diabetic peoples [7]. Findings of the research may direct the physician for primal treatment of depression in DM individuals which might be beneficial for betterment in the standard of life of diabetics.

MATERIAL AND METHODS:

The design of the research was cross-sectional, carried out at the Medicine Department of Allied Hospital, Faisalabad from February to July 2017. The number of DM patients enrolled for research was one hundred and ninety-six having age in between eighteen to sixty-five years. Researcher expelled entire patients of mood complication, personality as well as anxiety complexness, conceived females (verified by urine pregnancy test), patients having a record of co-morbidities, obstruct heart failure, stroke, hypertension and hypothyroidism, patients with a record of drug addiction and depression prior to the inception of DM. DM was defined as patients of type two DM on the management of oral hypoglycemia for the previous five years with the best control having HBA1c below eight percent. We utilized a Performa for research purpose, specifically consisting of the socio-demographic profile along with other data of diabetic patients. The researcher analyzed the depression by applying DSM-IV criteria and declared those who had five or more

indication/symptoms for not less than two-week duration as mentioned by DSM-IV. Researcher entered data of patients and analyzed it by using SPSS software and measured SD and average for numerical information such as time period of diabetic and age, measured percentage and periodicity for categorical information such as gender and regularity of depression (yes/no). To decrease the consequences of a confounder, researcher performed categorization of gender, age, the income of the family and time period of diabetes and used the chi-square test to see the consequences of these on primary results and taken P value less than 0.05 as expressive.

RESULTS:

The number of DM patients enrolled for research was one hundred and ninety-six having age in between eighteen to sixty-five years. The average age of the enrolled patients was 53.35 ± 6.71 . Researcher diagnosed depression in forty-seven (23.98%) patients as well as one hundred and forty-nine patients was clear from depression and divide the entire selected patients into three age categories, eighteen to thirty-five-year age category, thirty-six to fifty year and fifty-one to sixty-five-year age category. The number of patients associated to age category of eighteen to thirty-five years, thirty-six to fifty and fifty-one to sixty-five was thirty-three (16.84%), sixty-six (33.67%) and ninety-seven (49.49%) respectively similarly the patients diagnosed with depression in each age category was six (18.18%), fifteen (22.73%) and twenty-six (26.80%) respectively. The researcher did not notice any statistical relation between depression and patient age and declared nil statistically important relation between the variance of depression and variant age categories with (P-value = 0.909). The number of male and female patients in research was eighty-nine (45.41%) and one hundred and seven (54.59%) out of one hundred and ninety-six patients respectively with a ratio of 1:1.2. The rate of depression in male and female was twenty-one (23.60%) and twenty-six (24.30%) respectively. The researcher did not find any statistically expressive (P = 0.909) variation of depression in both gender and divided the patients into 3 monthly categories i.e. Rs less than ten thousand, ten to twenty thousand and above twenty thousand respectively. The rate of depression was eleven (25.0%), sixteen (25.40%) and twenty (22.47%) in patients with monthly earning of less than ten thousand, ten to twenty thousand and above twenty thousand respectively. whereas insignificant (P = 0.902) relation of depression along with monthly earning was recorded. The number of patients identified with less than or equal to the three-year

time period of disease was seventy-five (38.27%) along with one hundred and twenty-one patients with greater than three years' disease time duration and researcher recorded thirteen (17.33%) and thirty-four

(28.10) patients of depression in both the categories respectively. Nonimportant relation ($P = 0.086$) between the time period of disease and depression was recorded.

Table – I: Depression Stratification

Depression	Number	Percentage
Yes	47	23.98
No	149	76.02

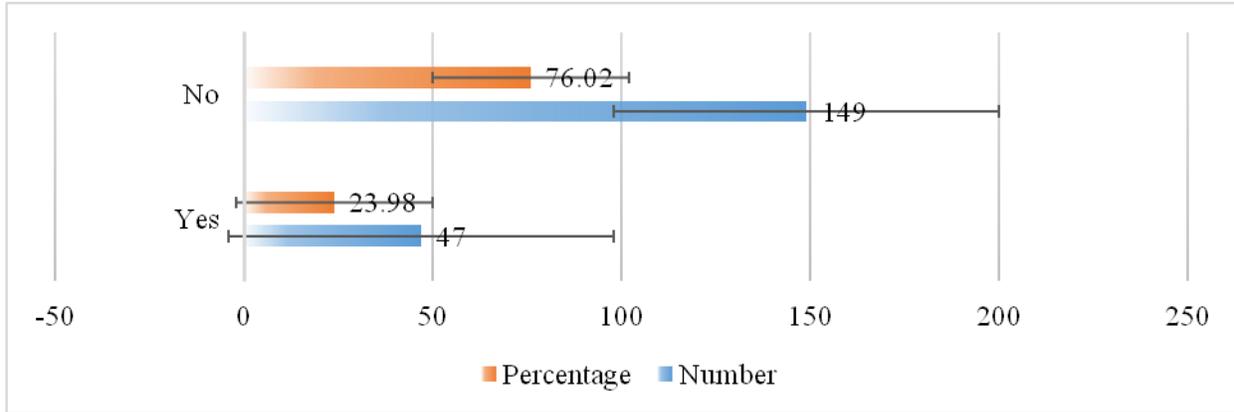
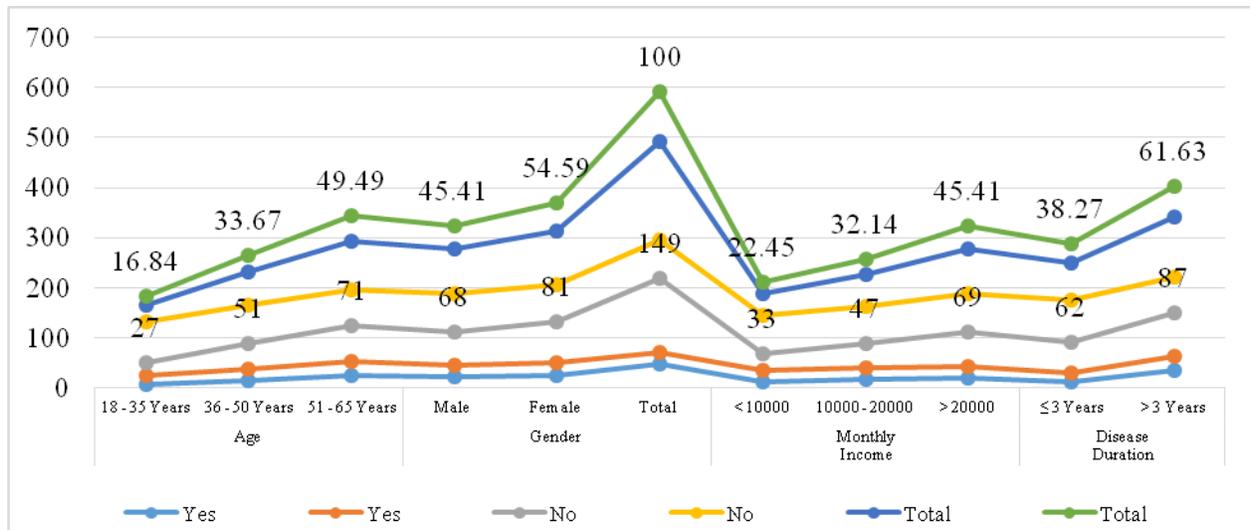


Table – II: Association of Depression with Age, Gender, Monthly Income and Disease Duration

Age (years)		Yes		No		Total		P-Value
		No	%	No	%	No	%	
Age	18 – 35 Years	6	18.18	27	81.82	33	16.84	0.58
	36 – 50 Years	15	22.73	51	77.27	66	33.67	
	51 – 65 Years	26	26.8	71	73.2	97	49.49	
	Total	47	23.98	149	76.02	196	100	
Gender	Male	21	23.6	68	76.4	89	45.41	0.909
	Female	26	24.3	81	75.7	107	54.59	
	Total	47	23.98	149	76.02	196	100	
Monthly Income	< 10000	11	25	33	75	44	22.45	0.902
	10000 – 20000	16	25.4	47	74.6	63	32.14	
	> 20000	20	22.47	69	77.53	89	45.41	
	Total	47	23.98	149	76.02	196	100	
Disease Duration	≤ 3 Years	13	17.33	62	82.67	75	38.27	0.086
	> 3 Years	34	28.1	87	71.9	121	61.63	
	Total	47	23.98	149	76.02	196	100	



DISCUSSION:

In the rapid growth of persistence diseases, depression performs a very important role. Entire depressed peoples feel disheartened that they terminate the survival confidence. The combination of depression and diabetic are less encouraging to proceed the sound lifestyle, comprising sustention of physical exercises along with sound habits of eating. So consequently, the management over glycemia was poor in patients of diabetic along with depression as compared to diabetic without depression patients [8]. The objective of the research was to analyze the periodicity of depression in diabetic patients [9]. The patients enrolled for research was one hundred and ninety-six having age in between eighteen to sixty-five years. The average age of the enrolled patients was 53.35 ± 6.71 years with maximum patients associated with age category of fifty-one to sixty-five years of age. Similar to our research Balhara YPS and Mathew CS et al, both the researcher presented fifty-four as the average age of the patients in his research [10, 11]. With another aspect, Das R and James Bo et al presented forty-six and forty-five as an average age of the patients respectively, which is too lower with reference to our research [12, 13]. In this research, the researcher recorded the superiority of females (54.59%), this superior percentage of females was also noted in earlier research. In literature, depression percentage in patients of diabetic ranges from twelve to twenty-eight percent [10, 13]. According to the research conducted by Mathew CS et al had a diagnosis of depression in thirty-eight percent diabetic patients [14]. Researcher diagnosed depression in forty-seven (23.98%) patients with type II DM. According to the research conducted by Blahara et al presented just sixteen percent of type II DM with depression [15]. Another

research performed by Raval A et al, identified this specific dominance too greater as forty-one percent with respect to our research [16]. In accordance with national research conducted by Zahid et al presented depression as (14.7%) in diabetics as well as Khawaja AK et al presented forty-four percent of higher depression rate [17]. In one additional research, Das R et al presented depression percentage as (46.15%) of type II DM along with Khamseh et al presented depression rate as (71.8%) [18, 20]. In one of international research, twenty-four percent was a depression in DM patients along with seventeen percent in non-diabetics. James et al in his research presented thirty percent of depression dominance with type II DM with reference to (9.2%) in patients of non-diabetic [21]. Mohammad R et al presented this dominance as (12.3%) [22].

CONCLUSION:

The research determined that dominance of depression was much greater in patients of diabetic type II. Therefore, appropriate assessment of the comorbid in patients of diabetic should be performed. Therefore, appropriate counselling, as well as psychotherapy of these specific patients, might be performed with the objective of advancing their life standard and decrease the bitterness. Results of the research also presented that there is no connection of depression with age, residential zone, gender and time period of the disease.

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