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PHYSIOLOGICAL AND PSYCHOLOGICAL DISTRESS AMONG NORMAL AND DIABETIC PEOPLE

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ABSTRACT

This research paper is an attempt to study the level of physiological and psychological distress among normal and diabetic people. The present study is based on 60 samples between the age group of 35-60 years. Half of subjects (30) were Normal and remaining 30 were Diabetic patients. In each group 15 subjects were males and 15 were female subjects. The C.M.I Health Questionnaire constructed by N.N. Wing, D. Pershad and S. K. Verma was used for collection of data. The independent variable was gender and dependent variables were physiological and psychological distress. Mean, S.D and t-test were applied for data analysis. Results revealed that significant difference were found between the diabetic and normal male subjects with respect to physiological and psychological distress. Also significant difference were found between the diabetic and normal female subjects with respect to psychological distress but insignificant difference were found between the same group in respect to physiological distress.

KEY WORDS: - Diabetes, Physiological distress, Psychological distress and Gender.

INTRODUCTION

Diabetes is a chronic condition in which pancreas produce insufficient insulin or the body cannot use it properly which results raising the blood level inside the body's major energy source like glucose which cause widespread disturbance of the body's energy processes. In diabetes body does not process food properly for use as energy. According to W.H.O "diabetes is a chronic disease that occurs either when the pancreas does not produce enough insulin or when the body cannot effectively use the insulin it produces". Hyperglycemia or increased blood sugar is main cause of diabetes. Diabetes causes various physiological as well as psychological problems like stroke, heart diseases, kidney failure, blindness, anxiety, depression etc.

Diabetes is a prevalent illness about 350 million people have diabetes globally, in 2012; 1.5 million people were died by this chronic disease.

Since past two decades diabetes has emerged as a serious disease in India. International Diabetes Federation (IDF) reports that India is on top in diabetics than any other nation of the world. In 2011 about 50.8 million people in India was living with diabetes about 70 million people have been affected till 2015. It is also expected that up to 2030, in India over 100 million people are likely to suffer from diabetes. That is why the main goal of the World Health Day 2016 campaign was to increase awareness about the rise in diabetes, and its staggering burden and consequences.

A number of studies are available which highlights various aspects of diabetes and problems

faced people living with diabetes. Krishna and Vaghela (2016) found anxiety level was significantly higher in male and female diabetic patients. Ervasti *et al.*, (2016) revealed that psychological distress was associated with increased duration and frequency of work disability among employees with diabetes. Lyrakos (2013) found female diabetic patients have significant risk factor for depression, anxiety and stress than male diabetic patients. Hislop *et al.*, (2008) found that one third of young adults with Type 1 diabetes experienced psychological distress. Fisher *et al.*, (2008) found 85% of diabetic patients have higher rates of panic disorder and 123% have higher rates of generalized anxiety disorder. Gucciardi *et al.*, (2008) in their study found female diabetic patients report significantly more depressive symptom than male diabetic patients. Melissa *et al.*, (2010) revealed that diabetes distress was more strongly for male than for female patients. Polonsky *et al.*, (2005) revealed that diabetic patients experience higher levels of general emotional distress as well depressive symptoms. Chouhan and Shalini (2006) found better adjustment level in normal than diabetes patients. Results also indicate that diabetic patients have high stress levels. Rodrigo *et al.*, (2012) revealed that diabetic subjects have higher mental disorders (18.6%) than non diabetic subjects (16.4%). Grigsby *et al.*, (2012) found depression and anxiety among diabetic patients. Grey *et al.*, (2012) in their research found 15- 25% of adolescents with type 1 diabetes experience depression. Kilkkinen *et al.*, (2007) found no gender differences in psychological distress.

Problem: - To study the Physiological and Psychological distress among normal and diabetic people.

OBJECTIVES

1. To study the level of physiological and psychological distress among normal and diabetic people.
2. To study the effect of gender on physiological and psychological distress among normal and diabetic people.

HYPOTHESES

1. There would be significant difference between the diabetic male and normal male subjects with respect to physiological distress.
2. There would be significant difference between the diabetic male and normal male subjects with respect to psychological distress.
3. There would be significant difference between the diabetic female and normal female subjects with respect to physiological distress.
4. There would be significant difference between the diabetic female and normal female subjects with respect to psychological distress.

VARIABLES

In the present study there is one independent variable gender (male and female) and two criterion variables physiological distress and psychological distress

SAMPLE

The present study consists of 60 subjects between the age group of 35-60 years. Divided into two equal groups normal and diabetic patients. In each group 15 subjects were males and 15 were female subjects.

MEASURING TOOL

In the present study C.M.I Health Questionnaire constructed by N.N. Wing, D. Pershad and S. K. Verma was used for collection of data. The questionnaire consists of 195 questions distributed among two main sections i.e. physical distress and emotional or psychological distress.

RESULTS

The main purpose of the present study was to study the levels of physiological and psychological distress among normal and diabetic people. The obtained were arranged in tabular form and t-test was applied to test hypothesis. Mean scores, SD value and t-value of each and every group on the basis of hypotheses is shown separately in below giving tables.

Table-1

Shows mean, S. D. and t-value of Physical distress scores of Diabetic and Normal male subjects.

Group	N	Mean	S.D	D	SE _D	df	t- value	P
Normal Male	15	18.06	9.13	26.60	6.38	28	4.16*	P<0.05
Diabetic Male	15	44.66	23.02					

*significant at 0.05 level

Table-2

Shows mean, S. D. and t-value of Psychological distress scores of Diabetic and Normal male subjects.

Group	N	Mean	S.D	D	SE _D	df	t- value	P
Normal Male	15	9.04	7.68	6.66	3.13	28	2.12*	P<0.05
Diabetic Male	15	16.06	9.39					

*significant at 0.05 level

Table-3

Shows mean, S. D. and t-value of Physical distress scores of Diabetic and Normal female subjects.

Group	N	Mean	S.D	D	SE _D	df	t- value	P
Normal Female	15	22.93	9.22	14.00	7.10	28	1.97	P>0.05
Diabetic Female	15	36.93	25.94					

Table 4

Shows mean, S. D. and t-value of Psychological distress scores of Diabetic and Normal female subjects.

Subject	N	Mean	S.D	D	SE _D	df	t- value	P
Normal Male	15	13.76	7.57	0.87	2.95	28	0.29	P<0.05
Diabetic Male	15	12.86	8.65					

DISCUSSION

The results of the present demonstrated that there is significant found difference between normal and diabetic male subjects in respect to physical and psychological distress. The mean and S.D. value of normal and diabetic male subjects with respect to physical distress was found [(18.06, S.D=9.13),(44.66, S.D=23.02] respectively and the obtained t-values was found 4.16 with df 28 which is more than table value at 0.05 level of significance. Though our first hypothesis is accepted. Also mean and S.D. value of normal and diabetic male subjects with respect to psychological distress were found [(9.04, S.D=7.68), (16.06, S.D=9.39)] respectively and the obtained t-values was found 2.12 with df 28, which is found significant at 0.05 level. Hence our second hypothesis is also accepted. Our findings are supported by Lin *et al.*, (2008) they found 20% diabetic patients were more likely to have an anxiety disorder. Third hypothesis was rejected as the mean and S.D. values of normal and diabetic females were found [(22.93, S.D =9.22), (36.93, S. D. =25.94)].The t-value was found 1.79 with 28 df which is low then the table value at 0.05 level of significance. Significant difference was found between the diabetic and normal female subjects with respect to psychological distress as the obtained t-value 0.29 with df 28 was found significant at 0.05 level. The mean scores of normal and diabetic females were found 13.76 and 12.86 and S.D. of same group was found 7.57 and 8.65 respectively. Similarly Rodrigo *et al.*, (2012) found diabetic subjects have more psychological distress (26%) than non diabetic (18.9%) subjects.

CONCLUSION

On the basis of our results we might conclude that diabetic male have high physical and psychological distress than normal male subjects. Also diabetic female subjects have high physical distress than normal females but have low psychological distress than normal female subjects.

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