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## **QUALITY OF LIFE IN DIABETICS ON TRADITIONAL AND MODERN MEDICINE**

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**ABSTRACT:** Diabetes mellitus characterized by hyperglycaemia affect the quality of life of the diabetic patient. Quality of life was assessed in 76 diabetics on modern medicine (38 diabetics) and traditional medicine (Ayurveda) (38 diabetics). Quality of life was studied by using questionnaires validated by the world health organization (WHOQOL-BREF). The score for quality of life obtained by questionnaire study was compared between the two groups. There was no significant difference in the quality of life between these two groups. Observation also made regarding the increased number of females choosing modern medicine treatment compared male diabetics.

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**KEYWORDS:** Diabetes Mellitus, Quality of life. Traditional Medicine

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### **1.INTRODUCTION**

Diabetes mellitus (DM) is a chronic non-communicable condition characterized by hyperglycaemia due to absolute deficiency of insulin or deficiency in the action of insulin. Duration of diabetes and the glycaemia are well related to the complications of diabetes and quality of life. (1, 2) Diabetes is the 5<sup>th</sup> leading cause of death in United States. An estimated 17 million people had diabetes mellitus in United States of America as per estimate in the year 2000. It is predicted that it will increase to 30 million people by 2030 (3). World health organization (WHO) had predicted that diabetes will be the 7<sup>th</sup> leading cause of death by 2030 (4) Individuals with diabetes mellitus have greater risk of developing diseases of the heart, eyes, kidney, extremities etc. (5). Ayurveda medicine is an ancient

system of medicine, over centuries it had proved its use and its methodology. Today Ayurveda system of medicine is used in western world, as they were practiced only in India thousands of years ago. In Ayurveda medicine diabetes mellitus is known as madhumeha. The treatment of madhumeha strictly based on individual constitutions. Ayurveda recommends lifestyle remedies that include limiting foods that are high in sugar and simple carbohydrates, but eating smaller portion and variety of whole grain foods, complex carbohydrates and vegetables in addition to usage of herbal remedies. They also recommend exercise like yoga, panchakarma etc [6]. Diabetes mellitus is a serious public health problem. It affects the person's quality of life due to complications of diabetes mellitus. Quality of life is a broad multi-dimensional concept. It usually includes subjective evaluation of the positive as well as negative aspects of life. Patients with diabetes mellitus have to modify their lifestyle and learn to live with lifelong monitoring of blood glucose, consuming multiple drugs and/or injections and deal with various complications associated with the disease and treatment [7]. The multidisciplinary treatments used by physicians around the world are focused on an ultimate objective of improving the quality of life of diabetic patients related to his health. The present study was intended to evaluate and to compare the quality of life in diabetics on treatment with traditional medicine and modern medicine by using questionnaires validated by World Health Organization.

## 2. MATERIALS AND METHODS

The study population consists of 76 diabetics undergoing treatment between the age group of 35 to 65 years. Pregnant and lactating women within 6 weeks of postpartum and also diabetics with other disease and disabilities not related to diabetes are excluded from the study group. Of the 76 diabetics 38 were taking traditional treatment and 38 were on treatment with modern medicine. The study was approved by the institutional ethical committee. Informed consent of the patient was obtained before the questioner study. To assess the quality of life the questionnaires validated by the world health organization (WHOQOL-BREF) was used. It has 26 subset items taken from the WHOQOL-100, in which there are ranges from 1 to 5. The evaluation of quality of life is sub-divided further into four domains. They are physical health, psychological health, social relationships and environment. The scoring of the questionnaires was done by interviewing the patients [9]. If patient did not value one of the items in a physical health and environment health domain then the value for it would be remaining item from the same domain. If more than two items are not valued then the specific domain was excluded from calculation. If the patient had not valued psychological and social relationship domain then the raw scale score was transformed based on the formula below

$$\text{Transformed scale} = \frac{(\text{actual raw score} - \text{lowest possible raw score})}{\text{Possible raw score range}} \times 100\%$$

The data was statistically analysed using Independent t test by SPSS

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### 3. RESULTS DISCUSSION

The study group consisted of 76 diabetics taking traditional (Ayurveda) treatment and modern treatment for diabetes mellitus type 2. Of the 76 diabetics, 38 were taking modern treatment and 38 were taking traditional medicine treatment. Of the 76 diabetic 32 (42.1%) were females and 44 (57.9%) were males (figure 1). We noticed, the male respondents on traditional medicine treatment were 68.4 %, while female respondents 31.6 % with the frequency of 26 male patients preferring traditional medicine against 12 female patients. There was a more number of female diabetics undergoing modern medicine treatment 51.3 % compared to male diabetics 48.7% (which was 20 female patients versus 18 male patients). It may be due to the increase in women education and job opportunities, which gives rise for a better knowledge and beliefs on modern medicine. Ching S.M et al, had shown that prevalence of complementary alternative medicine was 62.5%. Females were 1.8 times more likely than male in using complementary alternative medicine. They also observed 36.0% of males and 64.0% of females were using complementary alternative medicine (10). The commonest co-existing diseases along with diabetics, was still hypertension with 68.4%, while second commonest was hyperlipidemia with 28.9%. Of the diabetics on traditional medicine treatment 57.9% had hypertension and 28.9% of patient had hyperlipidaemia. Remaining 13.2% had other associated disorders. In diabetics on modern medicine treatment, 68.4% had hypertension, 28.9% had hyperlipidaemia and remaining 2.6% had other associated disorders (figure 2). The quality of life in diabetics on modern medicine treatment had shown a mean score of 13.61 (SD  $\pm$  1.43) for physical health, 15.23 (SD  $\pm$  6.81) for psychological health, 13.61 (SD  $\pm$  1.80) for social relationships and 15.58 (SD  $\pm$  2.13) for environmental health. In diabetics on traditional medicine treatment, the mean score for physical health was 13.17 (SD  $\pm$  1.66), for psychological health was 14.05 (SD  $\pm$  4.85), for social relationships 13.66 (SD  $\pm$  1.94) and 15.84 (SD  $\pm$  2.09) for environmental health. However, there was no significant ( $> 0.05$ ) change in the quality of life in those who were undergoing traditional treatment and taking modern medicine for diabetes mellitus type 2. Jyotsna VP et al observed that the quality of life in patient with diabetes as evaluated by WHOQOL-BREF questionnaire was not significant in the group used only the treatment. But they observed significant improvement in physical, psychological and social domains and total quality of life in the group which was practicing Sudarshan Kriya Yoga and Pranayam (SKY) yogic breathing program compared to the group following standard treatment alone(11). We had selected patients taking only modern or Ayurveda medicinal treatment which may be the reason for not observing any statistically significant difference in the quality of life.

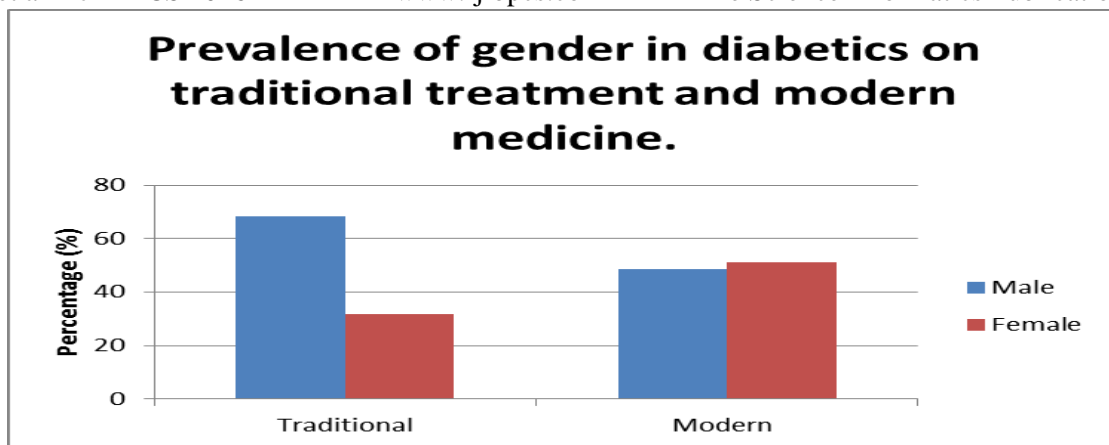


Figure 1. Gender distribution among the study group

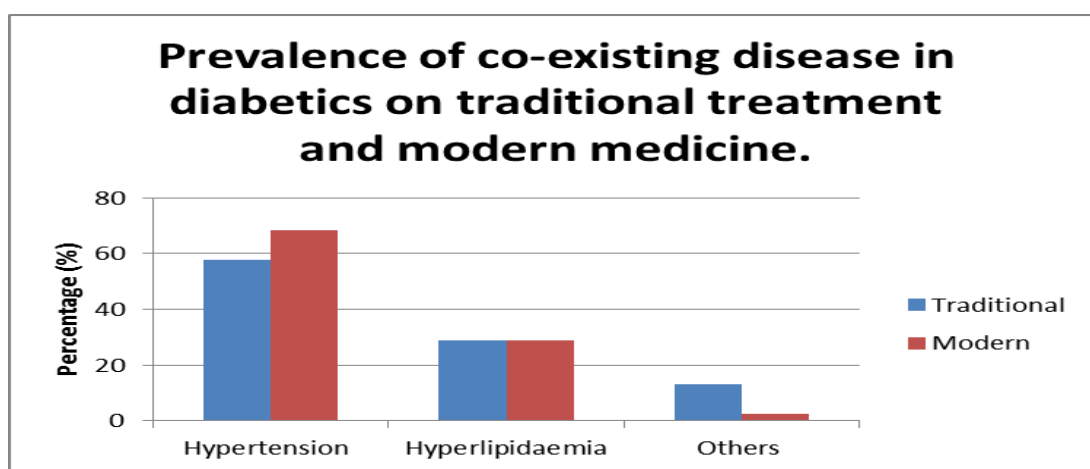


Figure 2. The distribution of co-existing disease in diabetics on traditional and modern treatment

**Table 1: Quality of Life in diabetic on modern treatment**

Quality of Life	Diabetics on modern medicine Mean (SD)	Diabetics on traditional Mean (SD)	P value
Physical	13.61 ± 1.43	13.17 ± 1.66	0.225
Psychological	15.23 ± 6.81	14.05 ± 4.85	0.380
Social Relations	13.61 ± 1.80	13.66 ± 1.94	0.961
Environment	15.58 ± 2.13	15.84 ± 2.09	0.651

Independent t test; p <0.05 significant

**4. CONCLUSION**

We conclude according to the observation that more number of female diabetic patients prefer to take modern medicine treatment. There was no significant change in the quality of life between the diabetics taking the modern medicine treatment and the Ayurveda treatment. Draw back of the study was the sample size. Larger sample size may give valuable information regarding the quality of life in diabetics.

**CONFLICT OF INTEREST**

The authors declare that no competing financial interests exist.

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