

# A Research Study on Effect of Diabetes, Awareness, Guideline and its Treatment

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## ABSTRACT

**Aim:** Diabetes is considered as the major disease which is increasing day by day in world wide. Research shown that it should be properly treated and routine visits to doctors are needed to overcome this issue, otherwise it will lead to major cause and severe health issues.

**Methods:** To check out the actual results, they collect different samples from different clinics of Lahore. They were trying to check out the self-check from patients. Interviews has taken by face to collect certain data.

**Results:** After taking interviews, they collect results as the ages of people suffering from diabetes was between 55-65 years. Patients suffering with type 2 diabetes were about 390 and people who suffers with type 1 diabetes was 80. Glucose in the blood was about 9.03 mol/l.

**Conclusion:** If patients are suffering from type 2 diabetes, they should have proper self-awareness, effectiveness of their treatment, self-efficiency etc.

**Keywords:** Diabetes mellitus, self efficiency, effectiveness, DSM, Type 2 diabetes.

## INTRODUCTION

All over the world, diabetes is considered as public disease because most of the people around us are infected with this disease [1]. This disease is increasing per year with very high rate as compared to other diseases in the world including Pakistan. About 22% people got effected with this disease per year [2]. Due to diabetes, many other diseases start developing as chances of heart issues increase, valves of heart stop working or slows down, shortsightedness occurs. For their treatment, a huge amount is using, for some people its treatment seems to be very costly [3]. As we study that its treatment is costly, there is an option to reduce its effects and price too by patients. If patients start controlling their diet, stop eating those things which increase level of sugar in their bodies, they can overcome this issue and control level of diabetes in their body [4]. If patients will start reducing their diet which include sugar, about 38% risk of heart failure and 20% risk of mortality will be decreased [5]. They said that after interviews, they gave oral session to diabetic patients mainly to those who was suffering with type 2 diabetes, after this they have seen positive results [6]. These sessions include awareness about their disease and self esteem and enhancement to control their diet [7].

From last 2 years ratio of diabetes in people is increasing. They have noticed that about 44,333 people got effected with this and most of them was effective with type 2 diabetes which show more hazardous effects. Severeness of diabetes in those patients who was having knowledge about their disease was less as compared to others [8]. Hypoglycemic index is necessary to check and balance the level of sugar in blood [9]. In this was blood glucose level will be controlled and ratio of disease and death will be decreased [10].

## METHODOLOGY

Study held in 4 different hospitals of Lahore. They took interviews randomly to those patients who was coming there for regular checkup. Main points on which interview was based were: Ages of patients, Duration of diabetic history, are able to under local language and English language, Where they are living etc. Some of them was having eye sight issues, so we did not include them in our research. Different types of tests are performed on them to calculate the exact mean value and accurate results. Interview has taken from them by face to calculate the best result also with their expressions. Most of them was not that much educated and was not able to answer these questions in English language. We also

ask them about some questions related to their daily routine as their routine, exercise, age group, sugar level, blood pressure, food intake etc. They exclude out some points from research due to previous history. These points were about how they monitor their daily glucose level and how many of them inject insulin to control diabetes. They also ask them about how much they have believe in the treatment of diabetes. About 1-4 give reviews that it is not much important, some of them said it is very important and others was neutral. The persons who give positive reviews about self management and self control on diabetes. They ask about which type of precautionary measures they take to control their level of diabetes. People who was facing issues in understanding questions or answering these questions in English, they also translate them to their language to get accurate results.

## RESULTS

About 390 people got selected for test and research. 70.3% was females and about 49.3% were males. 58 % of them was married and 12% was uneducated. They was not having information about which they are facing and which type of disease they have.

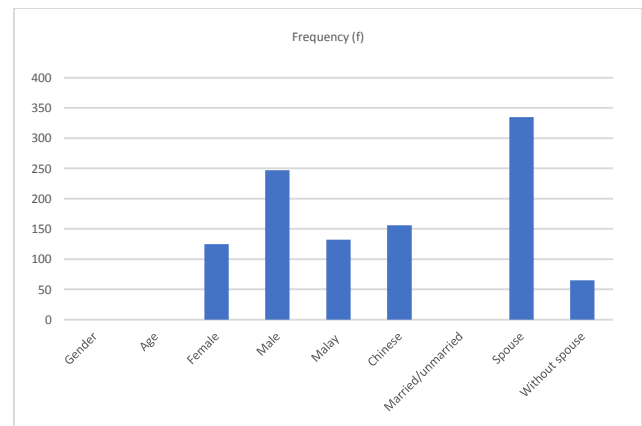


Figure 1:

They show different variables with their mean values as their treatment, percentage of knowledge they have about disease, their response about the effectiveness of the treatments, either these

medications are showing positive reviews or not. Mean value was about 30.05% and was differ from their minimum and maximum range. Most of them response that they are taking their proper medications. They also report that they are taking their meals on proper time and are taking glucose less food to control their diabetic level. About 30.4% of them are also doing exercise and have proper physical activities.

Table 1:

Characteristics	Frequency (f)	Percentage of respondent	Mean value
Gender			59.23 +11.67
Age			
Female	125	13.6	
Male	247	45.8	
Malay	132	57.9	
Chinese	156	25.7	
Married/unmarried			
Spouse	335	58.9	
Without spouse	65	23.7	
Qualification			
Not educated	152	25.9	
Primary	173	68.9	
Secondary and higher education	49	47.9	
Duration			3.6 +4.23
Below the range of 4 years	204	24.7	
After 5 years of age	194	12.7	
Serious illness			
No	47	2.9	
1-3	350	45.7	
Hemoglobin			7.1+2.09
Less than 7 %	89	12.9	
More than 7%	52	46.1	
Ratio of sugar at fasting			5.6+2.0
Greater than 5.1-6.4	5	90.1	
Less than 4.3	93	23.6	
Treatment with insulin	367	13.4	

Table 2:

Variables	Mean value	Minimum	Maximum
DSM	30.05	8	37
Treatment	25.98	16	40
Self-efficiency	19.92	8	38
Effectiveness in behaviors	13.04	3	28
Support from family	22.90	14	25
HPPC	34.12	01	29
Knowledge	6.78	4	12

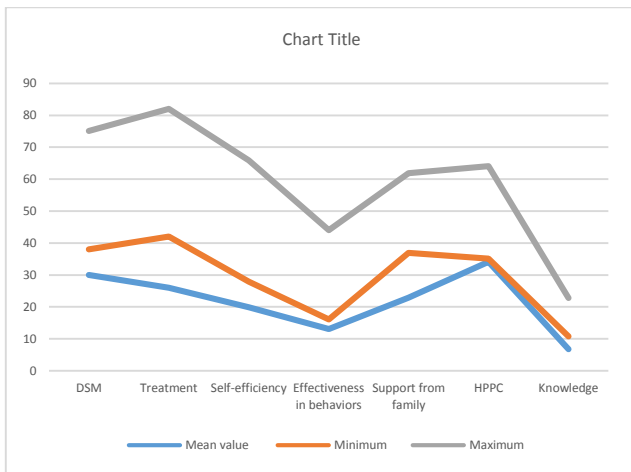


Figure 2:

About 349 patients from 390 was following doctor's prescription with percentage of 85.1%. Most of them was taking

their proper and regular diet and was not missing even a single meal in their routine to control diabetes.

Table 3:

No of item	Behavior	Numbers	Percentage of respondents	Mean value
1	Medication (oral)			6.25 +3.11
	Prescription of Doctor	349	85.1	
	Missed for once	15	15.0	
2	Following diet			5.39+17.2
	Daily basis	567	67.3	
	Missed for once	24	12.8	
3	Physical activities			6.34 +13.0
	More than 5 days	674	37.8	
	Less than 5 days	46	13.0	
4	Exercise			3.23 +1.56
	Less than 6 days	355	67.6	
	More than 6 days	64	38.8	
5	Foot checking			0.24 +1.35
	Daily basis	245	24.9	
	Missed for once	14	12.0	
6	Drying			5.27 + 14.0
	Daily	435	98.5	
	Missed for once	16	12.7	

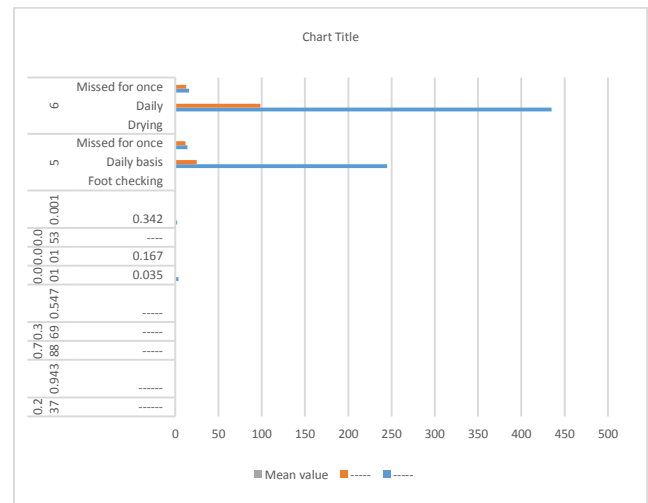


Figure 3:

Table 4:

Variable	96% CI	Value of p	Adjacent (96% CI)	Stat-t	Value of p
Continuous					
Treatment as biographic					
No of years (age)	-0.02	0.355	-----	-----	-----
Gender (M/F)	0.27	0.344	-----	-----	-----
Married/unmarried	-.0.45	0.237	-----	-----	-----
Education	0.01	0.943	-----	-----	-----
Profile of health					
Duration	-0.03	0.788	-----	-----	-----
Illness	-0.84	0.369	-----	-----	-----
Complications	-0.45	0.547	-----	-----	-----
Predicting factors					
Effectiveness of treatment	0.34	0.001	0.035	3.67	0.004
Support to family	0.56	0.001	0.167	0.004	0.005
HPPC	0.14	0.053	----	-----	-----
Self-efficiency	0.49	0.001	0.342	2.45	0.05

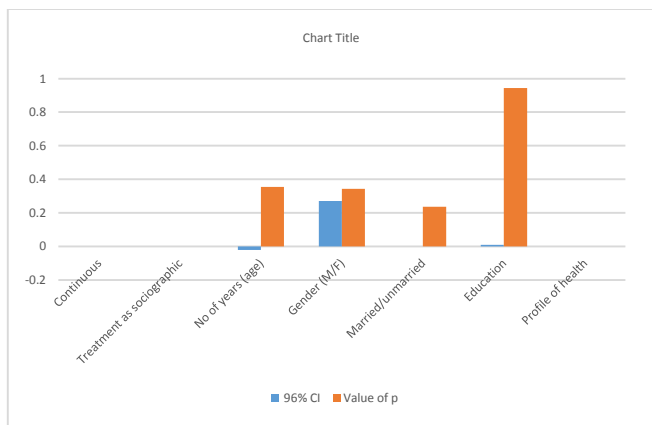


Figure 4:

## DISCUSSION

Discussion was based on different behaviors and management of people to control diabetes [11]. These behaviors include proper treatment and medications, routine exercise, excellent diet and treatment of their body [12]. By examining last researches about diabetes, it was estimated that most of the patients was just taking oral medications and was not injecting insulin. Rather than insulin, they was just taking tablets and antibiotics to treat their disease. 83% of them was taking medication according to doctor [13]. 61% of patients control their diet and take their diet with less consistency of glucose to get rid of this disease [14]. Just 30% was those who take daily exercise. Remaining gave different reasons of not doing their proper exercise in their routine life due to not having proper place for walk or having busy schedule. They can not manage their time from busy routine for exercise. Patients also have to make their body neat and clean, as they have to maintain cleanliness of their feet to avoid ulcers and cancer [15]. Response about care of feet from patients was about 62%. All patients who are facing diabetes should have proper knowledge about cleanliness of feet to avoid any harmful effects of diabetes. Ratio of females was more as compared to male. Some of them was single, 67% was married and about 15% was widow [16]. It is resulted that patients who show their interest in their self management and self control, they overcome their range of diabetes.

## CONCLUSION

Study revealed that self care done by patients is more effective than all medications and treatment. It is true that medications are also needed but if patient will try by them selves to overcome these issues, they will get best and more effective results. They should properly aware about their disease. In this way, they will be able to know all facts and figures. Care from immediate family is needed because without moral support nothing is possible. Type 2 diabetes is more harmful to humans, so precautionary measures and awareness is the first need.

**Competing Interest:** Author told that this article do not have competence with any other article.

**Contributions of Author:** Authors who have participated in this study have equal number of contributions.

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## REFERENCES

- Nantha, Y. S., Shan, T. Y., Haque, S., & Zain, A. Z. M. (2022). Assessing predictors of self-management intentions in people with type 2 diabetes. *BMC health services research*, 22(1), 1-7.
- Alkhormi, A. H., Mahfouz, M. S., Alshahrani, N. Z., Hummadi, A., Hakami, W. A., Alattas, D. H., ... & Mashhoor, M. A. (2022). Psychological Health and Diabetes Self-Management among Patients with Type 2 Diabetes during COVID-19 in the Southwest of Saudi Arabia. *Medicina*, 58(5), 675.
- Afshar, R., Sidhu, R., Afshari, R., Askari, A. S., Sherifali, D., Camp, P. G., ... & Tang, T. S. (2022). Profiling "Success": Demographic and Personality Predictors of Effective Peer Leaders in a Diabetes Self-management Intervention. *Canadian Journal of Diabetes*.
- Mirzaei, H., Siavash, M., Shahnazi, H., Abasi, M. H., & Eslami, A. A. (2022). Assessment of the psychometric properties of the Persian version of the diabetes self-management questionnaire (DSMQ) in patients with type 2 diabetes. *Journal of Diabetes & Metabolic Disorders*, 1-9.
- Helgeson, V. S., Horner, F. S., & Naqvi, J. B. (2022). Partner Involvement in Type 2 Diabetes Self-Management: A Mixed-Methods Investigation. *Diabetes Spectrum*, 35(1), 102-110.
- Andriani, R., & Maria, R. (2022). Correlation Between Diabetes Self-Management and Nutritional Status of Type 2 Diabetes Mellitus Patients in Hospital. *Journal of Nursing Science Update*, 10(1), 68-75.
- Bergen, S. A. (2022). The Impact of Sociodemographic and Sociocultural Factors on Medication Adherence: Diabetes Self-Management among Black Americans (Doctoral dissertation, Wilmington University (Delaware)).
- Koochaksaraee, F. M., Shirmahaleh, F. M., Tajeri, B., Kopkan, A. S., & Jianbagheri, M. (2022). Effectiveness of cognitive-behavioral therapy in diabetes self-management and HbA1C level in patients with type 2 diabetes.
- Huang, L., Zhang, L., Jiang, S., Liang, B., Xu, N., Li, J., ... & Zhang, Z. (2022). Association of the Coronavirus Disease 2019 Outbreak on the Diabetes Self-Management in Chinese Patients: An Analytical Cross-Sectional Study. *Diabetes, Metabolic Syndrome and Obesity: Targets and Therapy*, 15, 1413.
- Jones, S. C. (2022). Health Literacy, Self-Management and Health Outcomes Among Adults with Type 2 Diabetes Mellitus (Doctoral dissertation, Northcentral University).
- Kasar, K. S., Asiret, G. D., Yilmaz, C. K., & Canlar, S. (2022). The effect of model-based telephone counseling on HbA1c and self-management for individuals with type 2 diabetes: A randomized controlled trial. *Primary Care Diabetes*, 16(1), 41-48.
- Wongrith, P., Thiraratanasunthon, P., Kaewsawat, S., & Le, C. N. (2022). Comparison of Self-Management between Glycemic Controlled and Uncontrolled Type-2 Diabetic Elderly in Thailand: A Qualitative Study. *Diabetes mellitus*, 25(2), 174-185.
- Faruqui, S. H. A., Alaeddini, A., Wang, J., Fisher-Hoch, S. P., McCormick, J. B., & Rico, J. C. (2022). A Model Predictive Control Functional Continuous Time Bayesian Network for Self-Management of Multiple Chronic Conditions. *arXiv preprint arXiv:2205.13639*.
- Ngetich, E., Pateekhum, C., Hashmi, A., Nadal, I. P., Pinyopornpanish, K., English, M., ... & Angkurawaranon, C. (2022). Illness perceptions, self-care practices, and glycemic control among type 2 diabetes patients in Chiang Mai, Thailand. *Archives of Public Health*, 80(1), 1-10.
- Heise, M., Heidemann, C., Baumert, J., Du, Y., Frese, T., Avetisyan, M., & Weise, S. (2022). Structured diabetes self-management education and its association with perceived diabetes knowledge, information, and disease distress: Results of a nationwide population-based study. *Primary Care Diabetes*.
- Li, S., Li, Y., Zhang, L., Bi, Y., Zou, Y., Liu, L., ... & Zhang, Y. (2022). Impact of fear of hypoglycaemia on self-management in patients with type 2 diabetes mellitus: structural equation modelling. *Acta Diabetologica*, 59(5), 641-650.