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Medical Services, Patient Age, and Level of Education on Its Influence on Diabetic Patients' Level of Satisfaction

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ABSTRACT

According to the Department of Health, diabetes is among the main causes of death among Filipinos. As a result, medical administrations must provide high-quality services. Patients, treatments, and particularly rural medical centers should all receive adequate screenings from the government. The goal of this study is to find out how satisfied diabetic patients are with the medical care they receive. Twenty-two (22) people with diabetes were included in the study. A survey will be utilized to gather information and data from a group of diabetic patients. The results show that: (1) there is no substantial difference in diabetic patients' satisfaction based on sex demographics; (2) there is no substantial difference in diabetic patients' satisfaction based on age demographics; (3) there is also no substantial difference in diabetic patients' satisfaction based on the establishment; and (4) there is a substantial difference between the patient's satisfaction and the medical services offered. When it comes to the score mean, diabetic patients' satisfactions are inside the extremely satisfied verbal description. The majority of the respondents were between the ages of 47 and 54. 12 females, 10 males, and 15 of them were in one medical establishment and the others were in the second. Despite their demographic differences, their satisfaction levels were quite close. Since there is a significant difference between the medical services dimension and the mean score of the overall medical structure and process is lower, there is a slight improvement for the medical establishments to focus on the medical structure and process, specifically the facilities, transportation convenience, and the length of waiting which the patients scored lower than the other parameters.

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1. INTRODUCTION

Diabetes is on the rise worldwide. Diabetes is a condition that affects the body's capacity to metabolize blood glucose, often known as blood sugar. Patients may experience a build-up of sugars in the blood, which can lead to significant problems such as stroke or heart attack if not properly treated. Diabetes causes 422 million individuals globally, most of whom reside in low- and middle-income nations, and it causes 1.5 million deaths annually. Over the last decade, both the number of incidents and the incidence of diabetes has gradually increased (Wild *et al*., 2004; Tu *et al*., 2019).

One of every three (32.6%) adolescents in the Sultan Kudarat area in the Philippines was not physically active enough. People who are not physically active enough are more likely to develop heart disease, diabetes, and several malignancies. Diabetic patients desired high-quality monitoring services. Thus, having adequate resources and high-quality services should prevent further issues, particularly in the area of medical management. People are affected by excessive blood pressure, according to a study.

Furthermore, it would be to conduct surveys to better comprehend the relationship between the lifestyle and the distribution of these patients. It could help and comprehend better the patients' distribution status and health care needs, to better achieve the purpose of creating an improvement within the patients' welfare needs and medical services from the administration. The limitation associated with this study is the difficulty of the attainment of the respondent number and samples. There was a higher rate where there were no diabetic patients within the establishment or were denied to conduct the study.

2. METHOD

When a researcher wants to characterize or explain the characteristics of a big group or groups, survey research is particularly useful (Aquino *et al*., 2012). A descriptive study plan aims to collect data systematically to describe a phenomenon, condition, or population. It mostly assists or helps in answering the questions of what, when, where, and how about the research challenge, instead of answering the why (Dulock, 1993; Doyle *et al*., 2020).

2.1. Respondents of The Study

The respondents of the study were diabetic in and outpatients within the medical establishments of Tacurong City. Thus, the study collected valid research questionnaires from Type 1 and 2 diabetes patients within the permitted medical establishment location in Tacurong City.

2.2. Research Instrument

A research survey questionnaire was developed and implemented to gather information. During each survey year, a different set of survey instruments was implemented or employed to collect certain data from responders or respondents. Everything else in the research questionnaire survey was formulated to gather and provide answers to the study questions.

Patients' satisfaction with healthcare care was assessed on three primary dimensions: facilities, process, and results dimension.

The study implemented a Likert scale in the questionnaires to assess the satisfaction of patients with the medical services, particularly the bipolar scale. The following is the basis for the scale: 1.10 - 1.79 is extremely dissatisfied; 1.80 – 2.59 is dissatisfied; 2.60 – 3.39 is neither satisfied nor dissatisfied; 3.40 – 4.19 is satisfied; 4.20 – 5 is extremely satisfied.

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2.3. Sampling Technique

In this research, the researchers used probability sampling by cluster sampling. The population into separate groups or clusters using cluster sampling. With these, the researchers must choose at least three medical establishments within Tacurong city.

2.4. Data Gathering Procedures

To collect data, the researchers ran a survey that included survey questions and a letter of permission for each of the study's participants. Patients with Type 1 and 2 diabetes who are literate, conscientious, and can converse with others were accepted into the study. Patients with a cognitive handicap, inability to interact and communicate through language, illiteracy, or psychological disease that precludes them from properly attempting to answer the questionnaire were excluded.

Permission to conduct the study is followed by the distribution of questionnaires to respondents, the collection of questionnaires from respondents, the analysis and interpretation of results, and finally the presentation of the final output.

2.5. Statistical Treatment

The difference in measurement scores among more than three distinct independent groups could be tested using a one-way analysis of variance. The T-test, an inferential statistic, was also employed to determine whether there is a substantial distinction between 2 categories that are primarily related (Kim, 2015). Finally, we'll use the Post-Hoc test once we've uncovered a statistical significance and need to figure out how and where our differences came from.

3. RESULTS AND DISCUSSION

3.1. Demographic Profile of The Respondents

As shown in **Table 1**, the ratio of male and female study participants is 45.45 percent and 54.55 percent, respectively, according to the analytical finding of this research questionnaire, showing that women make up a large portion of the research respondents.

Table 1. Sex demographic profile.

Sex	Total	Percentage
Female	12	54.55%
Male	10	45.45%
Total	22	100%

Regarding the age distribution of subjects in this study (**Table 2**), three people were between 30-38 years old (13.64%), four people were aged 39-46 (18.18%), seven people were aged 47-54 (31.82%), four people were aged 55-62 (18.18%), and four people were aged 63-70 years old (18.18%). As shown in the table, regardless of sex, the samples were aged 47-54 for the majority.

For the establishment assigned/admitted (see **Table 3**), fifteen (68.18%) patients were in the first establishment, while seven (31.82%) patients were in the second establishment. Making the first establishment having the most respondents within the samples.

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Table 2. Age range demographic profile.

Age Range	Total	Percentage
30-38 years old	3	13.64%
39-46 years old	4	18.18%
47-54 years old	7	31.82%
55-62 years old	4	18.18%
63-70 years old	4	18.18%
71-78 years old	0	0.00%
Total	22	100%

Table 3. Establishment admitted/assigned.

Establishment Number	Total	Percentage
Establishment 1	15	68.18 %
Establishment 2	7	31.82%
Total	22	100%

We can get in **Table 4** that the patient's overall satisfaction in the three service dimensions is all within the extremely satisfying level. Overall, it has a grand mean of 4.693. On top of that, these discussions suggest that the quality of health service of these medical establishments was above satisfactory rate, which concluded that these establishments possess convenient and high-quality health service care.

Table 4. Summary grand mean of the medical service dimensions.

Parameters	n	Mean	Verbal Description
Medical Facility Satisfaction Level	22	4.585	Extremely Satisfied
Medical Process Satisfaction Level	22	4.650	Extremely Satisfied
Medical Results Satisfaction Level	22	4.844	Extremely Satisfied
Grand Mean	22	4.693	Extremely Satisfied

Table 5 shows the analysis to identify whether there are differences between the mean scores of the sex demographic profile. The males had a mean score of 4.71, and the females had a mean score of 4.72. The *t-statistic* which is *t* (20) is equal to 0.096 is less than the T-critical value (2 tail) which is 2.086. Furthermore, the *p-value* (2 tail) is equal to 0.92 and it has a value more than the alpha value which is 0.05. With this all said, there is no significant difference between the diabetic patients' satisfaction in terms of sex demographics.

Table 5. T-test analysis on finding the significant difference between the patients' satisfaction in terms of sex demographics.

	Mean	Degrees of Freedom	T-statistic	T-critical value	Interpretation
Male	4.709	20	0.096	2.086	Not Significant
Female	4.717				

α=0.05 level of significance; 2 tailed; type 2

Table 6 shows the ANOVA between the differences in scores of the age demographics. Based on the findings, the F statistic which is 1.031 has a value lower than the critical value (*F*

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crit) which is 3.007. Furthermore, the *P-value* which is 0.421 is greater than the alpha value which is 0.05. There is no significant difference between the patients' satisfaction in terms of the age demographics.

Table 6. Analysis of variance in finding the significant difference between the patients' satisfaction in terms of age demographics.

Source of Variation	*SS*	*Degrees of Freedom*	*MS*	*F*	*P-value*	*Interpretation*
Between Groups	0.154	4	0.038	1.031	0.421	Not Significant
Within Groups	0.596	16	0.037			
Total	0.749	20				

α=0.05 level of significance

Table 7 shows the analysis to identify whether there are differences between the mean scores of the establishment number. Establishment 1 has a mean score of 4.75, and establishment 2 has a mean score of 4.63. The *t-statistic* which is *t* (20) is equal to 1.439 is less than the T-critical value (2 tail) which is 2.086. Furthermore, the *p-value* (2 tail) is equal to 0.16, and it also has a value more than the alpha value which is 0.05. With this all said, there is also no significant difference between the diabetic patients' satisfaction in terms of the establishment demographics. Therefore, with supported discussions from **Tables 6 and 7**, the first null hypothesis (HO1) is accepted: There is no significant difference between the patients' satisfaction in terms of age; sex; and the medical establishment.

Table 7. T-test analysis on finding the significant difference between the patients' satisfaction in terms of establishment demographics.

	Mean	**Degrees of Freedom**	**T-statistic**	**T-critical value**	**Interpretation**
Establishment 1	4.752	20	1.439	2.086	Not Significant
Establishment 2	4.629				

α=0.05 level of significance; 2 tailed; type 2

Table 8 shows the Analysis of Variance between the differences in scores of the medical services of diabetic patients. Before the findings, the F statistic which is 6.912 has a higher value than the critical value (F crit) which is 3.295. Moreover, the *P-value* which is 0.003 is lesser than the alpha value which is 0.05 ($p<0.05$). With that being said, there is a significant difference between the patient's satisfaction and the medical services provided. Therefore, the second null hypothesis is rejected: There is a significant difference between the medical services provided by the satisfaction of diabetic patients.

Table 8. Analysis of variance in finding the significant differences of the medical service dimensions.

Source of Variation	*SS*	*Degrees of Freedom*	*MS*	*F*	*P-value*	*Interpretation*
Between Groups	0.423	2	0.211	6.912	0.003	Significant
Within Groups	0.979	32	0.031			
Total	1.402	34				

α=0.05 level of significance

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4. CONCLUSION

The researchers concluded that the satisfactions of the diabetic patients are within the extremely satisfied verbal description when it comes to the score mean. Despite also to their demographic differences, their satisfaction levels there a significant difference between the medical services dimension were quite close. The qualities of medical services provided, as well as the facilities of the establishments where diabetic patients are treated, influence their perception and satisfaction with the overall quality of medical care. Since the mean score of the overall medical structure and process is lower, there is a slight improvement for the medical establishments to focus on the medical structure and process, specifically the facilities, transportation convenience, and the length of waiting which the patients scored lower than the other parameters. Hence, the performances of the medical staff, accommodations, and the structure of the establishment all have an important impact on how patients perceive or feel about their surroundings.

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6. AUTHORS' NOTE

The authors declare that there is no conflict of interest regarding the publication of this article. Authors confirmed that the paper was free of plagiarism.

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