



EFFECTIVENESS OF VIDEO ASSISTED TEACHING PROGRAMME ON KNOWLEDGE AND PRACTICE REGARDING SELF ADMINISTRATION OF INSULIN AMONG DIABETES MELLITUS PATIENTS AT DHIRAJ GENERAL HOSPITAL, WAGHODIA VADODARA.

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ABSTRACT

Background: Diabetes mellitus is characterized by hyperglycemia and disturbance of the carbohydrate, fat and protein metabolism that is associated with absolute or relative deficiencies of insulin action or secretion. Prevalence of diabetes in adult's world –wide is higher in developed than in developing countries. The number of adults with diabetes in the world will rise 135 million in 1995 to 300 million in the year 2025. Lack of knowledge among diabetes patients may alter their practice. **Aim:** The aim of the study is to assess the level of knowledge and practice of self administration of insulin among diabetes mellitus patients. **Objectives:** 1) Assess the pre existing level of knowledge and Practice of patients with Diabetes mellitus regarding self-administration of insulin. 2) Administer video assisting teaching on self administration of insulin. 3) Evaluate the effectiveness of video assisting teaching regarding self administration of insulin. 4) Find out the association between pre-test knowledge and Practice with selected demographic variables of patients diagnosed with diabetes mellitus. **Material and Method:** A pre- experimental one group pre-test, post-test design was used for the study. 70 diabetes patients were selected by using Non-Probability Convenient sampling. Video assisted teaching was administered to every sample after the pre-test. Post-test administration was done on the 7th day after pre-test. Data was collected through self –structured questionnaires and check-list The conceptual framework used for this study was General System model (1968). **Results:** The mean of pre test knowledge score was (7.385714), sd (1.771701) and the mean percentage were (29.54286%). The mean of pre test practice score was (5.2286) sd (1.09242) and the mean percentage was (40.22%). The mean of post test knowledge score was (13.97143), sd (1.727622) and the mean percentage were (55.88571%). The mean of post test practice was (8.5286) sd (1.17611) and the mean percentage was (65.60%) From the entire socio-demographic variable only two variables that is Sex, education was associated with pre-test knowledge score and only two variables sex, education and source of information are associated with pre test practice score. The mean difference of pre and post level of knowledge is 6.585716 and the mean difference of pre and post level of practice is 3.3 which show the effectiveness of Video assisted Teaching Programme. The paired t calculated value of knowledge is 38.557 and the calculated “t” value of practice is 18.682 at 0.05 level of significance which is more than table value of “t”.

Conclusion: The result of the present study shows that there is a great need for the diabetic patients to update their knowledge and practice regarding self administration of insulin.

Key Words: Knowledge, Practice, Diabetic patients, diabetes mellitus, Dhiraj General Hospital

INTRODUCTION

The term “diabetes mellitus” is derived from the Greek word, “Diabetes” meaning “to go through” or a siphon and the word “mellitus” is derived from the Latin word “Mel” meaning honey describing the sweet odour of urine.¹ According to WHO (1994) diabetes mellitus is characterized by hyperglycemia and disturbance of the carbohydrate, fat and protein metabolism that is associated with absolute or relative deficiencies of insulin action or secretion. The different types of diabetes mellitus as adopted by the WHO (1995) include type 1 –insulin dependent diabetes mellitus (IDDM), type 2 –non-insulin dependent diabetes mellitus (NIDDM) and gestational diabetes mellitus.² The exogenous insulin is needed in Diabetes Mellitus when a patient has inadequate insulin to meet specific metabolic needs.¹ Diabetes is difficult to manage as it inflicts lifelong demands on people with diabetes and their families. People with diabetes might need insulin injection either because they don’t produce enough insulin in their bodies or they cannot properly use the insulin that they do produce or both.¹ Successful self management in Diabetes helps the patient feel better. Education is an important aspect of self-management, teaching the client on self administration of insulin helps the patient helps to build self confidence and pride of contribution in their management.²

OBJECTIVES OF THE STUDY

1. Assess the pre existing level of knowledge and Practice of patients with Diabetes mellitus regarding self-administration of insulin.
2. Administer video assisting teaching on self administration of insulin
3. Evaluate the effectiveness of video assisting teaching regarding self administration of insulin.
4. Find out the association between pre-test knowledge and Practice Score with selected demographic variables of patients diagnosed with diabetes mellitus.

HYPOTHESIS

- There will be significant difference between pre test and post test knowledge and Practice score of Patients regarding self administration of insulin injection after administration of Video assisted teaching.
- There will a significant association between pre-test knowledge and Practice on self administration insulin with selected demographic variables.

MATERIAL AND METHOD

Research Approach: Evaluatory approach.

Research Design: One group pre test -post test pre-experimental research design.

Variables under the Study

Independent variables: “An independent is a variable which can influence the dependent variable. The independent variable in this study is study is Video assisted teaching programme on self administration of insulin.

Dependent variables: “A dependent variable is the response behaviour or the outcome that is caused by the independent variable. The dependent variable in this study is the knowledge and Practice of diabetic patients regarding self administration of insulin.

Research Setting: In this study setting refers to the Wards of Dhiraj General Hospital, situated in Waghodia, Vadodara.

Population: In this study target population consisted of Diabetic patients admitted in Dhiraj General Hospital.

Sample and sampling technique: The sample size for this study comprise of 70 Diabetic patients admitted in wards of Dhiraj General Hospital. In this study, Non-probability convenience sampling technique was used.

Data Collection Techniques and Tools: Data collection instrument was structured knowledge questionnaire.

Data Collection Tool: The tool is divided into three parts:

Section 1: Demographic variables such as Patients age, Gender, occupation, education, Sources of information of diabetes mellitus.

Section 2: Self structured questionnaire will be used to assess the knowledge regarding Self administration of insulin among patients with diabetes mellitus at Dhiraj Hospital, Waghodia, Vadodara.

Section 3: Check list will be used to assess the practice level regarding self administration of insulin among patients with diabetes mellitus at Dhiraj Hospital, Waghodia, Vadodara.

RESULTS

Findings Are Organised In the Following Section:

SECTION I: Analysis of socio demographic characteristics of the respondent.

Distribution of the respondents according to age shows that among 70 participants the Most of subjects (44.28%) were in the age of 50-55 years, (22.85%) were of >60 years of age, (30%) were 45-50 years of age & (2.85 %) were 40-45 years of age. Distribution of the respondents according to Gender shows that among 70 participants The Majority of subjects (58.57%) were male and (41.42%) were female. Distribution of the respondents according to occupation shows that among 70 participants the Majority subjects (55.71%) were retired, (15.71%) were Private employee, (14.28%) were Farmer, (7.14%) were Businessman, (7.14%) were Govt employee. Distribution of the respondents according to Education Qualification shows that among 70 participants the Majority subjects (31.42%) were higher secondary, (30%) were secondary, (17.14%) were illiterate, (14.28%) were graduate, (4.28%) were Under-graduation, (2.85%) were Post graduation.. Distribution of the respondents according to source of information the data show the Majority of the subjects (82.85%) were any other, (10%) were Family member (5.71%) were Society & friends, (1.42%) were Mass & Media. In source of information regarding diabetes mellitus. Respondents

SECTION II: Assessment Of Knowledge Regarding Self Administration Of Insulin.

Table: 1 Distribution of level of knowledge among Diabetes Mellitus patients regarding self administration of Insulin. (Pre-test)N=70

| Sr. No. | Knowledge level | Frequency | Percentage |
|--------------|-----------------|-----------|------------|
| 1 | Inadequate | 53 | 75.71% |
| 2 | Moderate | 17 | 24.28% |
| 3 | Adequate | 00 | 00 |
| Total | | 70 | 100% |

Table: 2 Distribution of level of knowledge among Diabetes Mellitus patients regarding self administration of insulin. (Post-test)N=70

| Sr. No | Knowledge level | Frequency | Percentage |
|--------------|-----------------|-----------|------------|
| 1 | Inadequate | 00 | 00% |
| 2 | Moderate | 65 | 92.85% |
| 3 | Adequate | 5 | 7.14% |
| Total | | 70 | 100% |

Table: 3 Distribution of level of Practice among Diabetes Mellitus patients regarding self administration of insulin. (Pre-test)N=70

| Sr. No. | Categories of Practice | Frequency | Percentage |
|---------|------------------------|-----------|------------|
| 1 | Inadequate | 17 | 24.28% |
| 2 | Moderate | 53 | 75.71% |
| 3 | Adequate | 00 | 00% |

Table: 4 Distribution of level of Practice among Diabetes Mellitus patients regarding self administration of insulin. (Post-test)N=70

| Sr. No. | Categories of attitude | Frequency | Percentage |
|---------|------------------------|-----------|------------|
| 1 | Inadequate | 00 | 00% |
| 2 | Moderate | 34 | 48.57% |
| 3 | Adequate | 36 | 51.42% |

SECTION III: Effectiveness of Video assisted teaching programme regarding self administration of insulin among diabetes mellitus patients.

Mean, Standard Deviation, Mean Difference and 't' value of pre test and post test score.

N=70

Table: 5 Comparison of pre test and post test knowledge score of diabetes patients

| Variable | Pre test | Mean | Mean Difference | Std. Deviation | t- Value |
|---|-----------|----------|-----------------|----------------|----------|
| Knowledge regarding self administration of insulin | Pre-test | 7.385714 | 6.585716 | 1.771701 | 38.557 |
| | Post-Test | 13.97143 | | 1.727622 | |

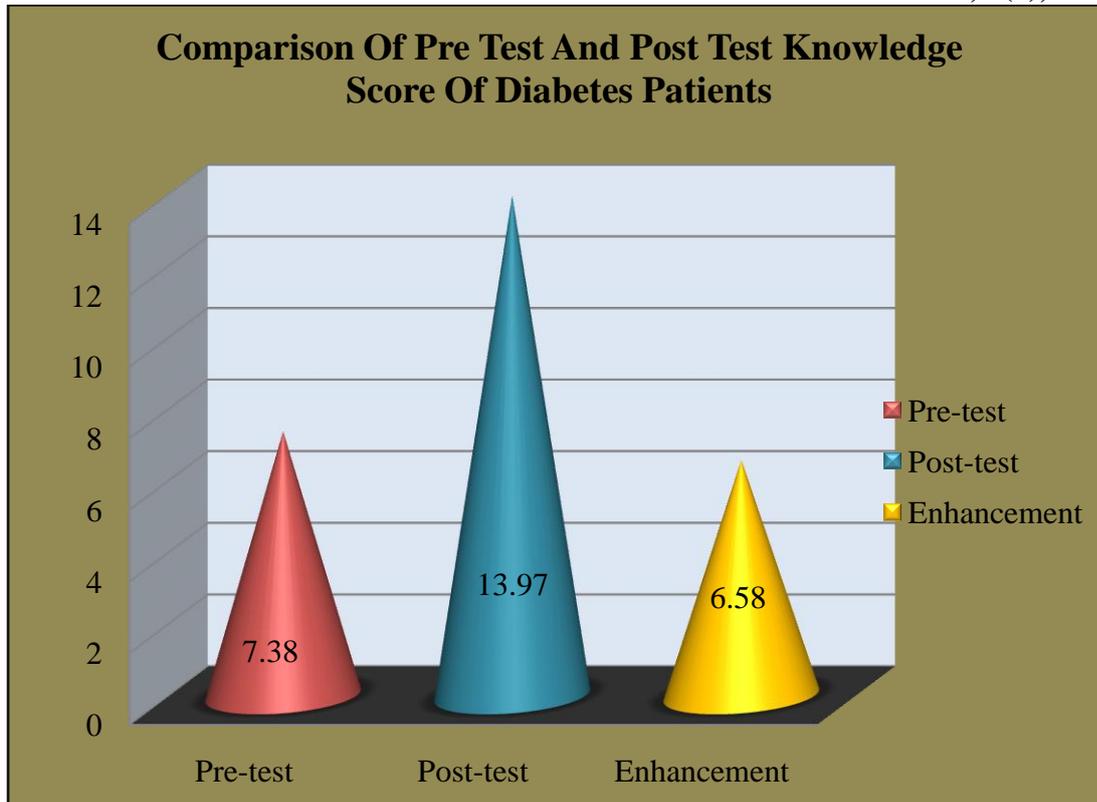
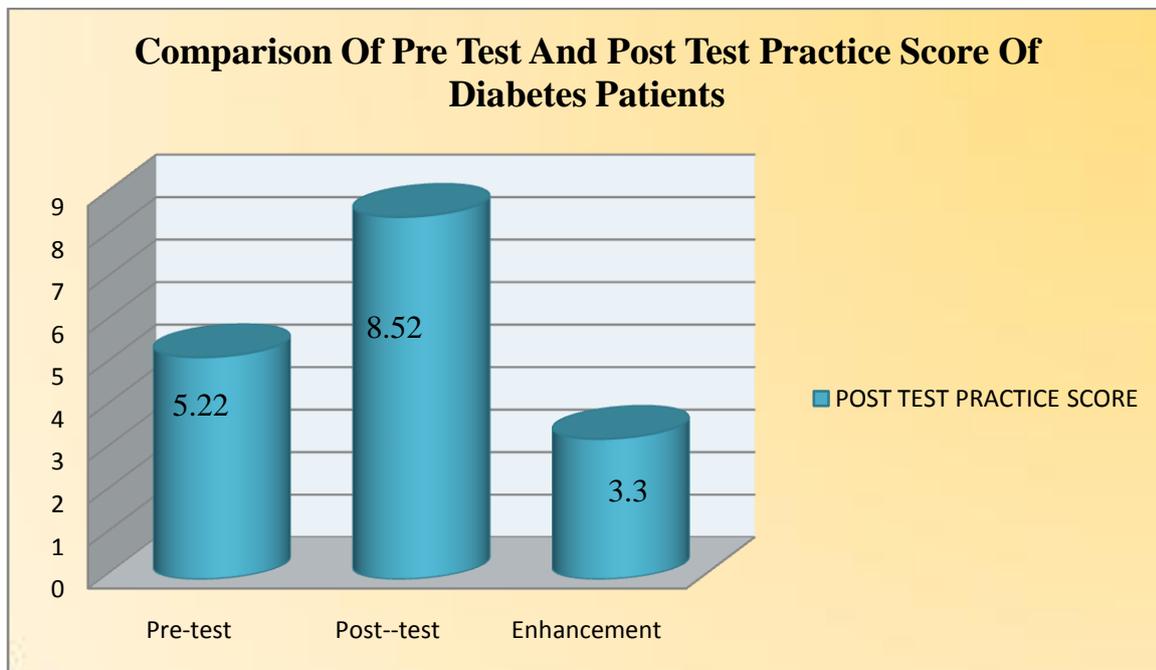


Table: 6 Comparison of pre test and post test practice score of diabetes patients

| Variable | | Mean | Mean Difference | Std. Deviation | t- Value |
|---|-----------|--------|-----------------|----------------|----------|
| Practice regarding self administration of insulin | Pre-test | 5.2286 | 3.3 | 1.09242 | 18.682 |
| | Post-Test | 8.5286 | | 1.08338 | |



SECTION IV: Association between selected demographic variables and pre test knowledge score

Socio-demographic variable are age of diabetes patients with χ^2 value 1.657 Source of information of diabetes patients with χ^2 value 1.745. So for this variable hypothesis is accepted. The non significant demographic variable is Age, occupation Gender. So, for this variable the variable the research hypothesis H_2 rejected. The association between Practice of diabetes patients and demographic variable which of significant are Sex of diabetes patients, with χ^2 value 0.026 Education of patients with χ^2 value 2.003 Source of information, with χ^2 value 2.141 for this variable hypothesis is accepted. The non significant demographic variable is Age, occupation, so, for this variable the variable the research hypothesis H_2 rejected. Hence, Hypothesis H_2 is partially accepted.

RECOMMENDATIONS

Based on the findings of the present study recommendation offered for the future study:

- The similar study can be conducted on larger sample this will provide the valuable evidence in the area of practice.
- The similar study can be done in the community setting.
- A comparative study between urban and rural areas regarding the diabetes patient's knowledge and practice on self administration of insulin.
- A longitudinal study can be done by using post test after one month, six months and one year to assess the effectiveness of VAT.

DISCUSSION

The present study was conducted to evaluate the “Effectiveness of video assisted teaching on knowledge and practice regarding self administration of insulin among patient with diabetes mellitus at Dhiraj Hospital, Waghodia, Vadodara.” The aim of study was conducted to evaluate the effectiveness of Video assisted teaching programme on knowledge and practice regarding self administration of insulin among diabetes mellitus patients. It was found diabetes patients had inadequate knowledge and practice regarding self administration of insulin and Video assisted teaching is effective to improve the knowledge and practice regarding self administration of insulin. Different study shows that the video assisted teaching is help to improve the knowledge and practice of self administration of insulin.

Various evidences show the effectiveness of Video assisted teaching programme in improving knowledge and practice regarding self administration of insulin. Ridyard CH (2016 Aug) The study was carried out to examine patients' perspectives on subcutaneously administered self- injectable medications when compared with other routes or methods of administration for the same medicines.³ Gerada Y (July 2017) A cross-sectional study was conducted. To assess adherence to insulin self administration and associated factors among adult patients with diabetes mellitus at endocrinology unit of Tikur Anbessa Specialized Hospital Addis Ababa Ethiopia on a total of 378 diabetic patients on insulin self administration using convenience sampling method.⁴ Begum S. (2015 Apr) The quasi-experimental research study was conducted in Crescent Hospital, Alathur, Palakkad, Kerala. 50 samples were used. The aim of the study is to compare the effectiveness of video assisted teaching Vs self instructional module on quality of life among type-2 diabetes.⁵ Ramzy (2016 Apr) The quasi experimental research study was done in Medical Clinic at health insurance hospital. It was carried out to assess the effectiveness of nursing intervention regarding self insulin administration among diabetic patients.⁶

CONCLUSION

Analysis of obtained data was planned based on the objectives and hypothesis of the study, both descriptive and inferential statistics were used for the analysis of the data. The data is interpreted in the forms of tables and graphs.

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