''Effectiveness of information booklet on knowledge regarding life style modification among type 2 diabetic patients admitted in selected hospitals, at Udaipur''.

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Abstract :A quasi experimental One group pre-test post-test study to assess the effectiveness of information booklet on knowledge regarding life style modification among type 2diabetic patients admitted in selected hospitals, at Udaipur, Rajasthan The sample consisting of 120 Patients in selected hospitals at Udaipur by using simple random sampling technique method. The tool comprised of by using structured knowledge questionnaire. The pretest was conducted and the Information booklet was distributed .The post test was conducted after one week .The data obtained were analyzed by using differential and inferential statistics. The mean score of post-test knowledge 18.20) 70.0 (%was apparently higher than the mean score of pre-test knowledge 9.85)37.88(%, suggesting that the information booklet was effective in increasing the knowledge of the patients regarding life style modification among type-2 diabetic .The mean difference 8.35 between pre-test and post-test knowledge score of the Patients was found to be significant.

Key words − One group pre −test post −test quasi experimental study, patients, and life style modification among type 2 diabetic.

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I.   Introduction

The term diabetes mellitus is derived from a Greek word which means to go through and the word Mellitus is derived from a Latin word Me (honey) describes the sweet odour of the urine. Diabetes Mellitus is a silent disease and   now recognized as one of the fastest growing threat to public health in almost all countries of the World.[1] Diabetes Mellitus is a chronic endocrine illness that manifests with elevated blood sugar levels resulting from an absolute or relative lack of insulin fraught with complications. Diabetes has emerged as one of the world's biggest health problems and its prevalence is increasing at an alarming rate.[2]Diabetes is a major public health problem that is approaching epidemic proportion globally. There is an urgent need for strategies to curb the rising prevalence of this disease and prevention appears a logic approach. Life style modification can reduce the incidence of diabetes by 50% in diabetes. Diabetic person can live his life through proper education on life style modification. Epidemiologic studies indicate that, large number of patients does not receive the proper care or education necessary to develop the self-management abilities. In order to convey the importance of patient education, the American Diabetes Association (ADA) has labeled self-management education as the corner stone therapy for the patient with Diabetes. Comprehensive patient education is required to provide the patient with the self-management skills necessary to prevent complications.[3] Diabetes self management education has gained its importance over the past decade as research has documented the benefits of such interventions in improving glucose control and reducing diabetes related complications. Unless education is imparted and awareness is created among people, it is difficult to control the epidemic of diabetes. Diabetes education, awareness and improving motivation for self care not only enhance care and reduce the burden of complications but also indirectly reduce the overall economic costs of Diabetes. The evidence on the impact of education on people with Diabetes is found to be very much effective[4]. Lifestyle modifications are an effective component to keep diabetes under control and provide opportunities a person to lead his/her life with joy and pleasure. Diabetes requires a lifelong management plan, and persons with diabetes have a central role in this plan. Therefore, it is important to learn as much as possible about diabetes and to take an active role in making decisions about healthcare and treatment. Lifestyle related risk factors play an important role in the development of type 2 Diabetes Mellitus. Some of these risk factors like dietary choices, smoking, alcohol consumption,

overweight and sedentary lifestyle are modifiable. Studies have shown that these factors, if effectively controlled, can lead to reduction in the risk of developing further complications [5].

II. Research Elaborations

Statement of problem –
"A study to assess the effectiveness of information booklet on knowledge regarding life style modification among type 2 diabetic patients admitted in selected hospitals, at Udaipur".

III. Objectives

1. To assess the pre test knowledge score regarding life style modification among type 2 diabetic patients.
2. To develop and distribute the information booklet on knowledge regarding life style modification among type 2 diabetic patients.
3. To assess the post test knowledge score regarding life style modification among type2 diabetic patients.
4. To assess the effectiveness of information booklet on knowledge regarding life style modification   among type 2 diabetic patients.
5. To find out association between pre-test knowledge score of type 2 diabetes patient with selected demographic variables.

IV. Hypothesis

H_1-There will be a significant difference between pre-test and post-test knowledge score regarding life style modification among type 2 diabetic patients.
H_2-There will be a significant association between pre-test knowledge score with selected socio-demographic variables among type 2 diabetic patients.

V.   Materials And Methods

Population – Patients.
Sample- Type 2 diabetic patients in selected hospitals at Udaipur, Rajasthan".
Sample Size – 120 Patients.
Setting –Geetanjali and Pacific Hospital, Udaipur Rajasthan, India
The conceptual framework for the present study is based on Imogene Kings Goal Attainment theory

VI. Research Design

The research design selected for the present study was a one group pre-test post-test research design

PRE-TEST)Dependent variable(	TREATMENT)Independent variable(	POST –TEST)Dependent variable(
O1	X	O2
Knowledge of Patients.	Information Booklet.	Knowledge of patients.

Table 1 :Quasi experimental one group pre and post-test research design

The interpretations of the symbol are as below:
O1   -   Administration of pre-test knowledge questionnaire
O2   -   Administration of post-test knowledge questionnaire
X   -   Intervention, treatment)independent variable(i.e.Information booklet.

Ethical Consideration
After obtaining permission from research committee of Geetanjali College of Nursing, prior permission was obtained from nursing superintendent and medical superintendent of Pacific hospital and Geetanjali hospital Udaipur Rajasthan, India.Consent was taken from each participant who had participated in the study.

Description Of The Tool
The structured knowledge questionnaire consisted of two parts i.e .Part –I & II .

Part -I :consisted of 13 items on socio- demographic data such as Age, gender, religion, family type, education status, occupation, habitant, associated diseases, monthly family income, personal habits, nutritional habit, awareness about DM, source of information and family history of DM.

Part -II :consisted of 26 knowledge items .Each item was multiple choices in nature with 4 choices.

Scoring
The knowledge of patients regarding the outcomes of life style modification among type 2 diabetic was scored as follows, one mark for each correct answer and zero marks for incorrect answer .The maximum score was 26, to interpret level of knowledge the score was distributed as follows;
Interpretation of knowledge:

Level	Range
Inadequate knowledge	0-50 %
Moderate knowledge	51-75 %
Adequate knowledge	76-100 %

An answer key was prepared for scoring answer to the structured knowledge questionnaire.

Data Collection And Data Analysis
The data was presented under the following sections
Section-I :Description of socio-demographic variables of the respondents.
Section-II :Findings related to knowledge scores of respondents on life style modification among type 2 diabetic patients
Section-III :Findings related to association between pre-test knowledge score and selected demographic variables of Respondents.

VII. Results

Table 2:- Area wise pretest and post test knowledge score of Respondents regarding life style modification among type 2 diabetic patients.

Area of Knowledge		Pre-test			Post-test		
		Mean score	Mean %	SD	Mean score	Mean %	SD
a. General Concept	7	2.38	34.0	1.28	5.28	75.4	1.12
b. Diet	6	2.70	45.0	1.38	4.05	67.5	1.16
c. Exercise	3	0.93	31.0	0.75	1.88	62.6	0.81
d. Medication	7	2.48	35.4	1.57	4.55	65.0	1.61
e. Personal hygiene	3	1.38	46.0	0.58	2.45	81.6	0.67
Over all	**26**	**9.85**	**37.8**	**3.20**	**18.20**	**70.0**	**3.13**

N=120.

Table 2 : Depicts that the pre test highest mean percentage obtained by the respondents is 46.0% with SD of 0.58 in the aspect of Personal hygiene, 45.0% with SD 1.38in the aspect of Diet, 35.4% with SD 1.57 in the aspect of Medication, 34.0% with SD1.28 in the aspect of General Concept and 31.0% with SD 0.75 in the aspect of Exercise.

Depicts that the post test highest mean percentage obtained by the respondents is 81.6% with SD of 0.67in the aspect of Personal hygiene, 75.4% with SD 1.12 in the aspect of General Concept, 67.5% with SD 1.16 in the aspect of Diet, 65.0% with SD1.61 in the aspect of Medication and 62.6% with SD 0.81in the aspect of Exercise.

Table 3:- Distribution of Respondents by the level of knowledge.
N=120

LEVEL OF KNOWLEDGE		FREQUENCY		PERCENTAGE	
		Pre test	Post test	Pre test	Post test
a.	Inadequate knowledge (0-50%)	105	6	87.5	5.0
b.	Moderate knowledge (51-75%)	15	81	12.5	67.5
c.	Adequate knowledge (76-100%)	0	33	0.0	27.5
	Total	120	120	100%	100%

Table 3 : The table represents the post test knowledge level of respondents regarding life style modification among type 2 diabetic patient. The result showed that 67.5% of the respondents had moderately adequate knowledge, 27.5% of the respondents had adequate knowledge and 5.0% had inadequate knowledge regarding life style modification among type 2 diabetic patient.

Table 4:- Effectiveness of the Information booklet regarding knowledge life style modification among type 2 diabetic patient.
N=120

	Mean	Mean Percentage (%)	SD	Enhancement	Enhancement percentage (%)	Df	T	Inference
Pretest	9.85	37.88	5.56	8.35	32.12	119	25.58	S
Post test	18.20	70.0	5.43					

S = Significant

Table 4:- The result evident that the obtained "t" value 25.583 is greater than the table value at 0.01 level of significance. Therefore, "t" value is found to be significant. Hence it is inferred that there is significant difference between the pre test and post test Knowledge scores of type 2 diabetic patients regarding the life style modification and the information booklet is effective in improving the knowledge of diabetic patients.

H_1 - There is a significant difference between the pre and post test knowledge score of patients on life style modification among type 2 diabetic patient. Hypothesis was tested at 0.05 levels. The calculated 't' value 25.58 is significantly higher than the table value 1.96 at 0.05 level of significance. This indicates that there is significant difference between the pre test and post test knowledge score hence the hypothesis H_1 is accepted.

H_2: There is a significant association between pre-test knowledge score regarding life style modification among type 2 diabetic patient with selected demographic variables.

The Chi-square test was carried out to determine the association between the pre test knowledge and demographic variables such as Age, gender, religion, family type, education status, occupation, habitant, associated diseases, family income, personal habits, nutritional habit, awareness about DM, source of information and family history of DM. Out of which Gender ($\chi 2 =4.70*$), family type ($\chi 2 =6.02*$), Occupation ($\chi 2 =37.93*$), Associated diseases ($\chi 2 =12.18*$), Family income ($\chi 2 =9.70*$), Personal habits ($\chi 2 =15.68*$) and DM ($\chi 2 =11.63*$) were found to be significantly associated with pre test knowledge at 0.05 level and the rest of the demographic variables were not significant. Hence research hypotheses H_2 is proved and accepted.

VIII. Conclusion

This study concludes that there is improvement in the level of knowledge of patients which indicates that the information booklet is effective. The demographic variables of patients significantly associated with the pre test knowledge score. The development of information booklet will help the patient to enhance their knowledge.

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