Original Article

"Effectiveness Of Demonstration On Knowledge And Practice Regarding Self Administration Of Insulin Among Gestational Diabetes Mellitus (Gdm) Women Attending Diabetic Clinic In Selected Hospitals Of The City: A Pre Experimental City"

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Abstract

Impaired glucose tolerance (IGT) with onset or initial diagnosis during pregnancy is knownas Gestational Diabetes Mellitus (GDM). Worldwide, one in 10 pregnancies is associatedwith diabetes, 90% of which are Gestational Diabetes Mellitus (GDM).

Objective- 1. To assess the pre-test knowledge and practice regarding self administration of insulin amongGestational Diabetes Mellitus (GDM) women attending diabetic clinic. 2. To assess the post- test knowledge and practice regarding self administration of insulin among Gestational Diabetes Mellitus (GDM) women attending diabetic clinic. 3. To compare thepre- test and post- test knowledge and practice regarding self administration of insulin among Gestational Diabetes Mellitus (GDM) Women attending diabetic clinic. 4. To correlate the knowledge and practice regarding self administration of insulin among Gestational Diabetes Mellitus (GDM) Women attending diabetic clinic.5. To evaluate theeffectiveness of demonstration on knowledge and practice regarding self administration ofinsulin among Gestational Diabetes Mellitus (GDM) women attending diabetic clinic.
6. To find out the association of knowledge and practice score with their selecteddemographic variables.

Methodology- In specific hospitals of the city, a pre- experimentalone group pre-test and post- test research design with a methodology of quantitativeresearch was used among Gestational Diabetes Mellitus (GDM) women attending diabeticclinic using non-probability purposive sampling technique consisting of 60 samples.

Result- Analysis showed that post test mean knowledge and practice score demonstratedappreciable increments. Also positive correlation was found between knowledge andpractice, calculated 't' value for knowledge and practice i.e.56.70 and 30.47 respectivelyshowed demonstrations of knowledge and practice among Gestational Diabetes Mellitus(GDM) women attending diabetic clinic was effective.

Conclusion: The study concludesassociation of post-test knowledge score with age (in year), education, , duration of gestational diabetes mellitus (in months), previous knowledge on self administration of insulin and association of post-test practice score with previous knowledge on self administration of insulin. Therefore, it may be inferred statistically that demonstration on self administration of insulin among Gestational Diabetes Mellitus (GDM) women attending diabetic clinic was effective.

Keywords-Gestational Diabetes Mellitus (GDM), Knowledge, Practice, Diabetic clinic,Gestational Diabetes Mellitus (GDM) women.

INTRODUCTION

Gestational Diabetes Mellitus (GDM) is defined as Impaired Glucose Tolerance (IGT) with onset or first recognition during pregnancy. Worldwide, one in 10 pregnancies is associated with diabetes, 90% of which are Gestational Diabetes Mellitus (GDM). Undiagnosed or inadequately treated Gestational Diabetes Mellitus (GDM) can lead to significant maternal & fetal complications. Moreover, women with Gestational Diabetes Mellitus (GDM) and their child are at increased risk of developing type 2 diabetes later inlife. The main purpose of identifying Gestational Diabetes Mellitus (GDM) is to detect women at risk of adverse perinatal outcomes.[1]

Women may experience some health problems during pregnancy. These complications caninvolve the mother's health, the fetus health, or both. Even women who were healthy beforegetting pregnant can experience complications Because of these problems, the pregnancy may be classified as a high-risk pregnancy. seeking early and regular prenatal care can help decrease the risk for problems by enabling health care providers to diagnose, treat, or manage conditions before they become serious. Prenatal care plays an important role to identify mental health concerns related to pregnancy, such as anxiety and depression.[2]

BACKGROUND OF THE STUDY

Gestational Diabetes Mellitus (GDM) prevalence varies widely over the world, ranging from 1% to 28%, depending on demographic variables (e.g. Mother age, socioeconomic status, race/ethnicity, or body composition), screening methods, and other factors and criterion for diagnosis. Asia is the world's largest and most populous continent (60 percentof the global population), with a rising prevalence of Gestational Diabetes Mellitus (GDM).[3]

In India, diabetes is a major public health issue, with prevalence rates ranging from 4.6 percent to 14 percent in urban regions and 1.7 percent to 13.2 percent in rural areas. Indiahas an estimated 62 million people with Type 2 diabetes mellitus (DM); this number is expected to increase till 79.4 million by 2025. Diabetes and its complications are a tremendous financial burden on society, thus efficient ways to combat this disease are urgently needed. Not surprisingly, in parallel with the increase in diabetes prevalence, thereseems to be an increasing prevalence of Gestational Diabetes Mellitus (GDM), that is, diabetes diagnosed during pregnancy. The prevalence of Gestational Diabetes Mellitus (GDM) had reported to range from 3.8% in Kashmir, to 6.2% in Mysore, 9.5% in WesternIndia and 17.9% in Tamil Nadu. the recent study shows that the prevalence rates as high as 35% from Punjab and 41% from Lucknow have been reported. The geographical differences in prevalence have been attributed to differences in age, socioeconomic status of pregnant women in these regions. It is estimated that about 4 million women are affectedby Gestational Diabetes Mellitus (GDM) in India, at any given time point.[4]

The prevalence of Gestational Diabetes Mellitus (GDM) in Maharashtra was found to be 7.7 per cent and 13.9 per cent women were found to have a single abnormal value on oralglucose tolerance test. Use of different criteria for diagnosis of Gestational Diabetes Mellitus (GDM) may be responsible for different prevalence rates of Gestational DiabetesMellitus (GDM).[5]

NEED OF THE STUDY

The prevalence of Gestational Diabetes Mellitus (GDM) the cases are increasing day by day. The condition Gestational Diabetes Mellitus (GDM) Affect the mother and baby andincreases the further complication to both the mother and child. Gestational Diabetes Mellitus (GDM) may turn to type -2 diabetes as the age advances and the child can also suffer from it in the future year. Gestational Diabetes Mellitus (GDM) has lots of complication if not treated properly can lead to major health problems like cardiac problems, obesity, kidney disease etc.

On the basis previous studies researcher would like to demonstrate the self administrationof insulin on Gestational Diabetes Mellitus (GDM) women to treat the gestational diabetesand to teach the diabetic women regarding proper self administration of insulin so they canprevent the further complications and it will be helpful for maintaining healthy wellbeingfor the diabetic women as well as fetus.

PROBLEM STATEMENT

“A Pre-Experimental Study to assess the Effectiveness of Demonstration on Knowledge and Practice regarding Self administration of Insulin among Gestational Diabetes Mellitus(GDM) Women attending Diabetic Clinic in Selected Hospitals of the city.”

OBJECTIVES

Primary objectives

1. To assess the effectiveness of demonstration on knowledge and practice regarding selfadministration of insulin among Gestational Diabetes Mellitus (GDM) women attendingdiabetic clinic in selected hospitals of the city.

Secondary objectives

1. To assess the pre-test knowledge and practice regarding self administration of insulinamong Gestational Diabetes Mellitus (GDM) women attending diabetic clinic.
2. To assess the post- test knowledge and practice regarding self administration of insulinamong Gestational Diabetes Mellitus (GDM) women attending diabetic clinic.
3. To compare the pre-test and post-test knowledge and practice regarding self administration of insulin among Gestational Diabetes Mellitus (GDM) Women attendingdiabetic clinic.

4. To correlate the knowledge and practice regarding self administration of insulin amongGestational Diabetes Mellitus (GDM) Women attending diabetic clinic.
5. To evaluate the effectiveness of demonstration on knowledge and practice regardingself administration of insulin among Gestational Diabetes Mellitus (GDM) women attending diabetic clinic.
6. To find out the association of knowledge and practice score with their selecteddemographic variables.

HYPOTHESIS

Hypothesis will be tested at 0.05 level of significance.

H0 -There will be no significant difference in the pre-test and post-test knowledge and practice score regarding demonstration of self administration of insulin among GestationalDiabetes Mellitus (GDM) women attending diabetic clinic.

H1- There will be significant difference in the pre-test and post-test knowledge and practicescore regarding demonstration of self administration of insulin among Gestational Diabetes Mellitus (GDM) women attending diabetic clinics limited.

DELIMITATION

This study is delimited to Gestational Diabetic Mellitus (GDM) Women attendingdiabetic clinic in selected hospitals of the city.

ETHICAL ASPECTS

The ethical committee of the institution had given the approval for this study proposal. Permission was taken from ethical committee. proper explanation regarding the purpose of the study and nature of questionnaire involved in the study was given to the samples. information about the sample was handled properly so that confidentiality and anonymitywas maintained. information was not used or released outside the term of the agreement. subjects were protected from all the harms.

REVIEW OF LITERATURE

In the present study the literature review has been organized into the following categories:

1. Literature related to gestational diabetes mellitus (GDM).
2. Literature related to knowledge and practice regarding self administration of insulin.
3. Literature related to effectiveness of demonstration.

CONCEPTUAL FRAMEWORK

The conceptual framework selected for the study was based on Ernestine Wiedenbach's "Prescriptive Theory" (Helping art of clinical nursing). Wiedenbach's prescriptive theorydescribed as system of conceptualization to some purpose.

METHODOLOGY

Research Approach: In this study quantitative research approach is used.
Research Design: In this study the design used was A pre experimental one group pre-testpost-test design.
Research Setting: The present study will be conducted in selected hospitals of the city.

VARIABLES

Independent Variables: The independent variable in the study is Effectiveness of Demonstration.
Dependent Variables: The dependent variable in this study is knowledge and practice regarding self administration of insulin among Gestational Diabetes Mellitus (GDM) Women.
Demographic Variables: In the present study demographic variables include Age (in years), Education, No of pregnancy (Gravida), No of delivery (Parity), Family history of Diabetes Mellitus, Duration of Gestational Diabetes Mellitus (months), previous knowledge on self administration of insulin, source of information.
Population: The population in this study are all women.
Target Population: In this study the target population includes Women's attending diabetic clinic in selected hospitals.
Accessible Population: In the present study the accessible population selected for the study comprises of All women's who are attending diabetic clinic in selected hospitals of the city and are available at the time of data collection and who were fulfilling the inclusioncriteria.

SAMPLING

Sample Size: consist of 60 Gestational Diabetes Mellitus (GDM) Women attending diabetic clinic.
Sampling Technique: nonprobability purposive sampling technique

Selection CriteriaInclusion criteria

Inclusion criteria for this study were, women who are,

- Having gestational diabetes mellitus (GDM).
- willing to participate.
- Able to read, write and understand Marathi / Hindi /English language.

Exclusion criteria

In this study exclusion criteria is, women who are,

- Not attending diabetic clinic.
- Not present at the time of data collection.

DESCRIPTION OF TOOL

Section I- Demographic Variables
Section II- Self Administered Knowledge Questionnaire
Section III- Observational Checklist for Practice

CONTENTVALIDITY

To ensure the content validity the tool was distributed to 21 experts including medical surgical nursing, obstetrics and gynaecological nursing, gynaecologist, physician and statisticians.

RELIABILITY

Reliability of observational checklist was done by using parallel form method ,the reliability of the tool was 0.997, which is more than 0.8 and hence the tool was reliable.

PILOT STUDY

Permission was taken from concern authority pilot study was conducted from a sample of10 Gestational Diabetes Mellitus (GDM) Women was selected from the selected diabetic clinics. The investigator obtained consent from participant of the study.

RESULT

Segment A- Organization of Gestational Diabetes Mellitus (GDM) Women withregards to Demographic Variables.

Table 1: Distribution of Gestational Diabetes Mellitus (GDM) women in relation totheir demographic characteristics.
n=60

Demographic Variables	Frequency (f)	Percentage (%)
Age (in years)		
18-24 yrs	9	15.0
25-31 yrs	23	38.3
32-38 yrs	26	43.3
39-45 yrs	2	3.3
Education		
Primary	13	21.7
Secondary	26	43.3
Graduation	21	35.0
Post Graduation	0	0
Others	0	0
Number of pregnancies (Gravida)		
One	22	36.7
Two	38	63.3
Three	0	0
Number of Delivery (Parity)		
Para 0	22	36.7
Para 1	38	63.3
Family history of diabetes mellitus from		
Grandfather	25	41.7
Grandmother	7	11.7
Father	14	23.3
Mother	14	23.3
Duration of GDM (months)		
Fourth	7	11.7
Fifth	11	18.3
Sixth	16	26.7
Seventh	26	43.3
Previous knowledge on self administration of insulin		
Yes	26	43.3
No	34	56.7
Source of information		
Family	20	76.9
Health Professionals	0	0
Mass Media	6	23.1
Other	0	0

Segment B – Organization of Pretest Knowledge and Practice Score Regarding SelfAdministration of Insulin among Gestational Diabetes Mellitus (GDM) Women attending Diabetic Clinic in Selected Hospitals of the city.

Table 2: Distribution of Assessment with level of pre-test knowledge score on selfadministration of insulin among Gestational Diabetes Mellitus (GDM) women n=60

Level of pre -testknowledge	Score Range	Level of Pre-test knowledge score	
		Frequency (f)	Percentage
Poor	0-20% (0-5)	41	68.33
Average	21-40% (6-10)	19	31.67
Good	41-60% (11-15)	0	0
Very Good	61-80% (16-20)	0	0
Excellent	81-100% (21-25)	0	0
Minimum score		3	
Maximum score		7	
Mean knowledge score		5 ± 1.40	
Mean % Knowledge Score		20 ± 5.60	

Table 3 : Distribution of Assessment with level of pre-test practice score regardingself administration of insulin among Gestational Diabetes Mellitus (GDM) women n=60

Level of pre-test Practice	Score Range	Level of Pre-test Practice score	
		Frequency (f)	Percentage
Poor	0-5	2	3.33
Average	6-10	54	90
Good	11-15	4	6.67
Very Good	16-20	0	0
Excellent	21-25	0	0
Minimum score		5	
Maximum score		12	
Mean practice score		7.91 ± 1.62	
Mean % Practice Score		31.66 ± 6.51	

Segment C- Organization of Post-Test Knowledge and Practice Score Regarding Self Administration of Insulin among Gestational Diabetes Mellitus (GDM) Womenattending Diabetic Clinic in Selected Hospitals of the city.

Table 4: distribution of Assessment with level of post-test knowledge score on selfadministration of insulin among Gestational Diabetes Mellitus (GDM) women n=60

Level of post -testknowledge	Score Range	Level of Post-test knowledgescore	
		Frequency (f)	Percentage
Poor	0-20%(0-5)	0	0
Average	21-40%(6-10)	0	0
Good	41-60%(11-15)	6	10
Very Good	61-80%(16-20)	54	90
Excellent	81-100%(21-25)	0	0
Minimum score		15	
Maximum score		18	
Mean knowledge score		17.01±0.91	
Mean % Knowledge Score		68.06±3.64	

Table 5: Distribution of Assessment with level of post-test practice score on selfadministration of insulin among Gestational Diabetes Mellitus (GDM) women n=60

Level of post-testPractice	Score Range	Level of Post-test Practice score	
		Frequency (f)	Percentage
Poor	0-5	0	0
Average	6-10	0	0
Good	11-15	42	70
Very Good	16-20	18	30
Excellent	21-25	0	0
Minimum score		14	
Maximum score		17	
Mean practice score		15.20 ± 1.08	
Mean % Practice Score		60.80 ± 4.34	

Segment D- Organization on Comparison of Pre-Test and Post-Test Knowledge and Practice Score Regarding Self Administration of Insulin among Gestational Diabetes Mellitus (GDM) Women attending Diabetic Clinic in Selected Hospitals of the city.

Table 6 : Distribution of comparison of pre-test and post-test knowledge score on self administration of insulin among Gestational Diabetes Mellitus (GDM) women n=60

Level of knowledgescore	Score range	Pre-test		Post-test	
		Frequency (f)	Percentage	Frequency (f)	Percentage
Poor	0-20% (0-5)	41	68.33	0	0
Average	21-40% (6-10)	19	31.67	0	0
Good	41-60% (11-15)	0	0	6	10
Very good	61-80% (16-20)	0	0	54	90
Excellent	81-100% (21-25)	0	0	0	0
Minimum score		3		15	
Maximum score		7		18	
Mean knowledge score		5 ± 1.40		17.01 ± 0.91	
0.91Mean % knowledge score		20 ± 5.60		68.06 ± 3.64	

Table IV- 7: Distribution of comparison of pre-test and post-test practice score on self administration of insulin among Gestational Diabetes Mellitus (GDM) women .

n=60

Level of knowledgescore	Score range	Pre-test		Post-test	
		Frequency	Percentage	Frequency	Percentage
Poor	0-20% (0-5)	2	3.33	0	0
Average	21-40% (6-10)	54	90	0	0
Good	41-60% (11- 15)	4	6.67	6	10
Very good	61-80% (16- 20)	0	0	54	90
Excellent	81-100% (21- 25)	0	0	0	0
Minimum score		5		14	
Maximum score		12		17	
Mean knowledge score		7.91 ± 1.62		15.20 ± 1.08	
0.91Mean % knowledgescore		31.66 ± 6.51		60.80 ± 4.34	

Segment E – Organization on Correlation Between Knowledge and Practice regarding Self Administration of Insulin among Gestational Diabetes Mellitus (GDM) Women Attending Diabetic Clinic In Selected Hospitals of the city.

Table 8: Correlation between knowledge score and Practice Score in pre-test on selfadministration of insulin among Gestational Diabetic Mellitus (GDM) Women.

n=60

Overall	Mean	SD	r- value	p-value
Knowledge Score	5	1.40	0.015	0.91
Practice Score	7.91	1.62		NS, p>0.05

Table 9: Table Correlation between knowledge score and Practice Score in post-teston self administration of insulin among Gestational Diabetes Mellitus (GDM) Women attending Diabetic Clinic.

n=60

Overall	Mean	SD	r- value	p-value
Knowledge Score	17.01	0.91	-0.277	0.032
Practice Score	15.20	1.08		S, p<0.05

Segment F- Organization on Effectiveness of Demonstration on Knowledge and Practice Score regarding Self Administration of Insulin among Gestational DiabetesMellitus (GDM) Women attending Diabetic Clinic in selected hospitals of the city.

Table 10: Table Showing Significance of difference between knowledge score in pre-test and post-test of on self administration of insulin among Gestational Diabetes Mellitus (GDM) Women.

n=60

Overall	Mean	SD	Mean Difference	t-value	p-value
Pre-Test	5	1.40	12.01±1.64	56.70	0.0001
Post-Test	17.01	0.91			S, p<0.05

Table 11: Table showing significance between practice score in pre-test and post-test on self administration of insulin among Gestational Diabetes Mellitus (GDM)women .

n=60

Overall	Mean	SD	Mean Difference	t-value	p-value
Pre-Test	7.91	1.62	7.28±1.85	30.47	0.0001
Post-Test	15.20	1.08			S, p<0.05

Segment G-1: Organization of Association of level of Post-Test Knowledge Score onSelf Administration of Insulin among Gestational Diabetes Mellitus (GDM) Women attending Diabetic Clinic in selected Hospitals of the city in relation to Demographic Variables .

Table 12: Association of Post-Test Knowledge Score on self administration of insulin among Gestational Diabetes Mellitus (GDM) women with their demographicvariables.

n=60

Sr. No.	Demographic variables	Calculated value			Df	Table value	Level of significancep <0.05	Significance
		t- value	F- value	P- value				
1	Age (in years)		6.42	0.001	3, 56	2.76	< 0.05	S
2	Education		6.32	0.003	2, 57	3.15	< 0.05	S
3	Number of pregnancy (Gravida)	0.18		0.85	58	1.98	>0.05	NS
4	Number of delivery (Parity)	0.18		0.85	58	1.98	>0.05	NS
5	Family history of diabetes mellitus from		0.65	0.58	3, 56	2.76	>0.05	NS
6	Duration of gestational diabetes mellitus (in months)		10.14	0.001	3, 56	2.76	<0.05	S
7	Previous knowledge on self administration of insulin	7.07		0.0001	58	1.98	<0.05	S
8	Source of information	0.94		0.35	24	2.06	>0.05	NS

Segment G-2: Organization of Association of Level of Post-Test Practice Score on Self Administration of Insulin among Gestational Diabetes Mellitus (GDM) Womenattending Diabetic Clinic in Selected Hospitals of the city in relation to Demographic Variables.

Table 13: Association of post-test Practice score regarding self administration of insulin among Gestational Diabetes Mellitus (GDM) women in relation todemographic variables.

n=60

Sr. No.	Demographicvariables	Calculated value			df	Tablevalue	Level of significancep <0.05	significance
		t- value	F- value	P- value				
1	Age (in years)		0.12	0.94	3, 56	2.76	>0.05	NS
2	Education		1.75	0.18	2, 57	3.15	>0.05	NS
3	Number of pregnancy (Gravida)	0.14		0.88	58	1.98	>0.05	NS
4	Number of delivery (Parity)	0.18		0.85	58	1.98	>0.05	NS
5	Family history of diabetes mellitus from	1.12		0.34	3, 56	2.76	>0.05	NS
6	Duration of gestational diabetes mellitus (in months)		1.64	0.18	3, 56	2.76	>0.05	NS
7	Previous knowledge on self administration of insulin	7.07		0.0001	58	1.98	<0.05	S
8	Source of information	0.26		0.31	24	2.06	>0.05	NS

DISCUSSION

The study was undertaken with the main purpose of assessing the knowledge and practiceregarding self administration of insulin among Gestational Diabetes Mellitus (GDM) women attending diabetic clinic in selected hospitals of the city.

In the present study Post-test knowledge score of Gestational Diabetes Mellitus (GDM) women regarding self administration of insulin was higher than pre-test. In present study result reveals that 41 (68.33%) of the Gestational Diabetes Mellitus (GDM) women in pre- test had poor level of knowledge score and 19 (31.67%) in pre-test had average level of knowledge score and 6 (10%) of the Gestational Diabetes Mellitus (GDM) women in post-test 54 (90%) of the Gestational Diabetes Mellitus (GDM) women in post-test had very good level of knowledge score. The Minimum knowledge score in pretest was 3 andin post-test it was 15 and maximum knowledge score in pretest was 7 and in post-test it was 18. Mean knowledge score in pretest was 5±1.40 and in post-test it was 17.01±0.91 and mean percentage of knowledge score in pretest was 20±5.60. and in post-test it was 68.06±3.64. In the present study post-test practice score of Gestational Diabetes Mellitus (GDM) women was higher than the pre-test. The study result reveals that 2 (3.33%) of theGestational Diabetes Mellitus (GDM) women in pre-test had poor level of practice score, 54 (90%) had average level of practice score and 4 (6.67%) of them had good level of practice score and in post-test 42 (70%) of the Gestational Diabetes Mellitus (GDM) women in post-test had good level of practice score and 18 (30%) had very good level of practice score. The Minimum practice score in pretest was 5 and in post-test it was 14 and maximum practice score in pretest was 12 and in post-test it was 17. The Mean practicescore in pretest was 7.91±1.62 and in post-test it was 15.20±1.08 and mean percentage of practice score in pre-test was 31.66±6.1 and in post-test was 60.80±4.34.

A Quantitative evaluative research approach pre experimental study was conducted to evaluate the effectiveness of demonstration on self-insulin-administration with regards to practice among diabetes mellitus clients in selected diabetic clinics in metropolitan city. the researcher had used a One group pre-test post-test research design for the present study.30 subjects were selected by non-probability purposive sampling. Analysis of pre-test interpreted as 80% had average level of practice and Remaining 20% of them had good level of self insulin administration practice. Result also suggest that

overall pretest score of self insulin administration practice before demonstration was 8.23 and overall post-testof self insulin administration practice was 1st day 19.30,3rd day 22.76and 5th day 24.53, there was significance increase in self insulin administration practice score i e. Practice ofself insulin administration was improved after the demonstration. p value =0<0.05 Hence investigator rejected H0 and acceptedH1 Therefore investigator concluded that demonstration on self insulin administration with regards to practice among diabetes mellitus clients was effective.[6]

CONCLUSION

In this chapter, aspects of the study in terms of analysis and interpretation and discussed the study reveals comparison of pretest and post-test knowledge scores of Gestational Diabetes Mellitus (GDM) Women attending diabetic clinic regarding self administration of insulin. Mean, standard deviation and mean difference values are compared and student's paired 't' test is applied at 5% level of significance. The tabulatedvalue for n=60-1 i.e. 59 degrees of freedom was 1.98. The calculated 't' value i.e. 56.70 are much higher than the tabulated value at 5% level of significance for overall knowledge score of Gestational Diabetes Mellitus (GDM) women which is statistically acceptable level of significance. the comparison of pretest and post-test knowledge scores regarding self administration of insulin among Gestational Diabetes Mellitus (GDM) Women attending Diabetic clinic. Mean, standard deviation and mean difference values are compared and student's paired 't' test is applied at 5% level of significance. The tabulatedvalue for n=60-1 i.e. 59 degrees of freedom was 1.98. The calculated 't' value i.e. 56.70 are much higher than the tabulated value at 5% level of significance for overall knowledgescore of Gestational Diabetes Mellitus (GDM) women attending Diabetic clinic which isstatistically acceptable level of significance. Hence it is statistically interpreted that the Demonstration on knowledge regarding self administration of insulin among GestationalDiabetes Mellitus (GDM) women was effective. Thus the H_1 is accepted. the comparison of pretest and post-test practice scores of Gestational Diabetes Mellitus (GDM) women regarding self administration of insulin. Mean, standard deviation and mean difference values are compared and student's paired 't' test is applied at 5% level of significance. Thetabulated value for n=60-1 i.e. 59 degrees of freedom was 1.98. The calculated 't' value i.e. 30.47 are much higher than the tabulated value at 5% level of significance for overall practice score of Gestational Diabetes Mellitus (GDM) women which is statistically acceptable level of significance. Hence it is statistically interpreted that the Demonstration on practice regarding self administration of insulin among Gestational Diabetes Mellitus (GDM) women was effective. Thus the H_1 is accepted. correlation between pretest knowledge and practice scores of Gestational Diabetes Mellitus (GDM) Women attendingdiabetic clinic regarding self administration of insulin. Positive correlation was found between knowledge score and practice score(r=0.015,p=0.91).The correlation between post test knowledge and practice scores of Gestational Diabetes Mellitus (GDM) Women attending diabetic clinic regarding self administration of insulin. Significant negative correlation was found between knowledge score and practice score (r=-0.277,p=0.032) which proves that as knowledge score of Gestational Diabetes Mellitus (GDM) Women attending Diabetic Clinic increases practice is also increased simultaneously.

Analysis reveals that there is association of post-test knowledge score with age, education,duration of gestational diabetes mellitus (in months), previous knowledge on self administration of insulin.
Analysis reveals that there is significant association of post-test practice score with previous knowledge on self administration of insulin.

NURSING IMPLICATIONS

The findings of the study have implication for nursing practice nursing education nursingadministration and nursing research.

NURSING PRACTICE

- Nurses are key person of health team who play a major role in the Health Promotionand maintenance. it is a practicing that the research generally integrate findings into practice.
- Nurse can conduct teaching session for student which will help in improvement ofknowledge and practice for student.
- Nursing personnel can offer opportunity to create awareness among Gestational Diabetes Mellitus (GDM) Women.
- The health care professional nurses will be move vigilant and text full in order to identify and educate the Gestational Diabetes Mellitus regarding self administration of insulin. it will also help the nurses to keep update knowledge regarding various aspects of self administration of insulin.
- When professional liability is recognized, the parameters of the profession and thestandards of professional conduct. Should therefore enhance their professional knowledge.
- The planned teaching programme can be used for imparting knowledge regarding various aspects of self administration of insulin and its benefits to health team members.
- Planned teaching programme would serve as a ready reference material for the health team members the information is particularly useful for the nurses for educating the Gestational Diabetes Mellitus (GDM) women and other health team members the benefits of self administration of insulin.
- The Study will help the nurses for coordinating services to Healthcare professionals.

NURSING EDUCATION

- Nurse were up to date with the knowledge and practices regarding self administrationof insulin are the better person to impart their knowledge to the nursing student whichwill ultimately update the knowledge regarding self administration of insulin and its benefits.
- Nowadays much emphasis is given on comprehensive care in the nursing curriculumso the study can be used by nursing teachers as informative illustration for nursing student.
- The lesson plan could help educated to use it as a tool for teaching.
- Students must be given clinical field assignment in which they must be given opportunity to interact with people and create awareness regarding self administrationof insulin and its benefits.
- Teacher training program must also include the topic of self administration of insulin.

NURSING ADMINISTRATION

- A health program can be planned for the students at school and college level on time basis and implemented country wise to create awareness on self administration of insulin and its benefits.
- Finding of the study can be used by the nursing administrator in creating policies andplans for providing education to the staff nurses and health professionals.
- It would help the nursing administrator to be planned and organized in giving continuing education to the nurses and to other for applying and updating the knowledge regarding self administration of insulin.
- In-service education must be conducted for the nurses to create awareness regarding self administration of insulin.
- The result of the study contributes to the body of knowledge of Nursing.

NURSING RESEARCH

- The findings of the study have added to the existing body of the knowledge on self administration of insulin which will enhance the knowledge and practices would help to keep it updated.
- Other researchers may utilize the suggestions and recommendations for conducting forthe study.
- The tool and technique used has added to the body of knowledge and can be used for further references

LIMITATION

- Study was conducted only on Gestational Diabetes Mellitus (GDM) women attendingdiabetic clinic in selected hospitals of the city.
- The sample size was small to generalize the findings of the study.
- The study was limited to measure the knowledge and practice of Gestational DiabetesMellitus (GDM) women attending diabetic clinic in selected hospitals of the city.
- The tool for data collection was prepared by investigator herself standardized tool wasnot used.

RECOMMENDATION

- A similar study can be replicated on a larger population for a generalization offindings.
- A comparative study can be done to assess the knowledge on self administration ofinsulin among Gestational Diabetes Mellitus (GDM) women and family members.
- A descriptive study can be conducted on the awareness regarding self administrationof insulin among Gestational Diabetes Mellitus (GDM) women.
- Similar study can be carried out to evaluate the effectiveness of video assisted teachingon self administration of insulin.

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