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KNOWLEDGE REGARDING IDENTIFICATION OF ALARMING SIGNS LEADING TO OBSTETRICAL EMERGENCIES AMONG ANTENATAL WOMEN AT SELECTED HEALTH SET UP OF KASHMIR

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Abstract: The present study aimed to assess the knowledge of antenatal women regarding identification of alarming signs leading to obstetrical emergencies during pregnancy, labour and puerperium. A quasi experimental research design was utilized at khanam's Hospital and Nursing Home, Hazuri Bagh, Srinagar. The most commonly reported alarming sign that could lead to obstetrical emergency was found to be continuous severe headache, difficulty in breathing (dyspnea), severe backache, severe abdominal pain, excessive vomiting, and epigastric pain. The least found alarming sign included recurrent vaginal bleeding swelling of face, hands, feet and legs, blurred vision, breathlessness, decreased urine output, high BP, high blood sugar, Convulsions, anaemia, high fever, excessive vomiting, premature rupture of membranes, reduced or no fetal movements. The mean post test knowledge score of Experimental group was 86.24% which was much higher than the mean post test knowledge score of Control group that was only 50.54%. The Chi-square value showed that in Experimental group, there was no significant association between the pre-test knowledge score and demographic variables. Also there was no significant association between the pre-test knowledge score with the Obstetric variables.

Index Terms- Alarming signs, Obstetrical emergencies, Complications, Puerperium

1. INTRODUCTION Pregnancy danger signs are the major health problems and cause of mortality among women in developing countries. Majority of maternal death occur in developing countries. Knowledge and practice towards identification of alarming signs of obstetric complications is first step in the appropriate and timely referral to essential obstetric care. Although women's knowledge about the obstetric danger signs is important for improving maternal and child health, little is known about the current knowledge and influencing factors in the Kashmir Valley. Due to lack of awareness about the danger signs of pregnancy, women fail to seek care in the right time for life-threatening complications of pregnancy and child birth.

High levels of perinatal (49 per 1000 births), neonatal (39 per 1000 births) and maternal mortality (301 per 100,000 live births) remain major public health challenges in India.[1,2] About one-third of neonatal deaths occur on first day of life, and majority of maternal death occur during labor, delivery, and within 24 hours postpartum.[3] The common causes of maternal deaths are hemorrhage, postpartum infection, hypertensive disorders, obstructed labor and abortion complications.[4] With assumption that 'Every pregnancy faces risk'.[5,6] women should be made aware of danger signs of obstetric complications during pregnancy, delivery and postpartum.[7,8] The danger signs are not actual obstetric complications but symptoms that are easily identified by nonclinical personnel. Knowledge of danger signs of obstetric complications is an essential first step in the appropriate and timely referral to essential obstetric care.[9] Knowledge of obstetric sign is the strategy aimed at enhancing utilization of skilled care during low-birth risks and emergency obstetric care in complicated cases.[10]

NEED OF THE STUDY Maternal mortality is a grave injury to a family, community, and the entire nation. The obstetric emergency has a profound effect on the mother and fetus resulting in high maternal and perinatal morbidity and mortality. Majority (99%) of all maternal deaths occur in developing countries. Between 1990 and 2015, maternal mortality worldwide dropped by about 44% from 385 to 216 maternal deaths per 100,000 live births. Despite this progress, the world still fell far short of the Millennium Development Goals target of a 75% reduction in the global maternal mortality rate (MMR) by 2015. Between 2016 and 2030, as part of the sustainable development goals, the target is to reduce the global maternal mortality ratio to less than 70 per 100,000 live births.[11]

It is of utmost importance that women at risk must be identified and managed appropriately. Timely intervention by a dedicated multi-disciplinary team will help to prevent maternal mortailty. This experimental study will be conducted in this regard to make the pregnant women understand the alarming signs during pregnancy, labour and postpartum period that may lead to obstetrical emergencies. Knowledge of danger signs of obstetric complications is first step in the appropriate and timely referral to essential obstetric care so that women might succeed to seek care in the right time for life-threatening complications of pregnancy and child birth. The results of the study could help to formulate a policy to improve the maternal and perinatal outcome in the valley.

STATEMENT OF PROBLEM

An experimental study to determine the effectiveness of VATM (Video Assisted Teaching Method) on knowledge regarding identification of alarming signs leading to obstetrical emergencies among antenatal women at selected health set up of Kashmir.

RESEARCH OBJECTIVES

1. To assess the pre-test knowledge regarding identification of alarming signs leading to obstetrical emergencies among antenatal women in Experimental group and Control group.

2. To assess the post- test knowledge regarding identification of alarming signs leading to obstetrical emergencies among antenatal women in Experimental group and Control group.

3. To determine the effectiveness of VATM on knowledge regarding identification of alarming signs leading to obstetrical emergencies among antenatal women in Experimental group and Control group.

4. To find out the association of pre-test knowledge score of antenatal women with their demographic variables in Experimental group and Control group.

5. To find out the association of pre-test knowledge score of antenatal women with their obstetric characteristics in Experimental group and Control group.

HYPOTHESES

H_1 : There will be significant difference in mean pre-test and post-test knowledge score regarding identification of alarming signs leading to obstetric emergencies among antenatal women in Experimental and Control group.

H_2: There will be significant association of pre-test knowledge of antenatal women regarding identification of alarming signs leading to obstetrical emergencies with their demographic variables in Experimental group.

H_3: There will be significant association of pre-test knowledge regarding identification of alarming signs leading to obstetrical emergencies among antenatal women with their obstetric characteristics in Experimental group.

2. LITERATURE REVIEW

Vijay NR, Kumare B, Yerlekar DS (2015)[12] undertook a cross-sectional study to assess the knowledge regarding danger signs among 100 pregnant women attending antenatal outpatient department (OPD). About 6.38% of subjects having good awareness about danger signs were from age group 20 to 25 years and 10.25% of subjects with good awareness were from 25 to 30 years. 20% of subjects had fair knowledge while 73% of subjects had poor knowledge about danger signs. Among which majority, i.e. 46.48% of subjects were from age 20 to 25 years and 93.33% from large family size had poor awareness about danger signs. Majority of subjects having good knowledge about obstetric danger signs had completed their secondary (7.69%) and university (9.52%) education. About 61% of the subjects knew about danger signs of pregnancy. Among which major source of knowledge was health personnel (57.37%) and other source of knowledge was mass media (42.63%). 50% of subjects knew about bleeding. Thus, it was the most common obstetrical danger sign that was known by subject population.

Anaam Ebrahim El-Nagar, Manal Hassan Ahmed, Ghada Abd El-Salam Belal (2017)[13] conducted an exploratory descriptive study at 4 antenatal clinics (M.C.H centers) on 200 pregnant women to assess the knowledge and practices of pregnant women regarding danger signs of obstetric complications in Tanta City. The results of this study revealed that the most frequently recognized danger signs that may occur during pregnancy were vaginal bleeding, followed by severe abdominal pain and gush of water from the vagina that were mentioned by more than two third , more than half and nearly half of the women, respectively. While, vaginal bleeding was the most commonly known danger sign mentioned by nearly one third and slightly more than one third of the women during labor and puerperium, respectively. Also, the vast majority of the women consulted a doctor when these danger signs appeared.

Gobran, M. , Fatah, M. , Ramadan, M. , Amer, G. , Rabeh, M. , Elshafei, R. , Bosilah, A. , Khalil, H. , Hassanine, S. , Mostafa, M. , Bakry, M. , Ibrahim, S. , Fattah, E. and Abdelbary (2021)[14] conducted a study to evaluate the effectiveness of the education program on pregnant women practices and knowledge on obstetric danger signs. A quasi-experimental design was used on 70 women from a population of 372 women in six-month in antenatal clinics (M.C.H centers) affiliated to the available geographical health zones in EL-fayoum rural area. The results revealed that there is an improvement in 63% of pregnant women knowledge and practices after educational program in all aspects. The study concluded that educational program had been effective in improving women knowledge and practice regarding danger signs for pregnant women in rural areas, with highly statistically significant differences in all the tested items between pre/post program implementation ($P < 0.001$).

Amoura Saad Eldeen Zaki, Shaimaa Fouad, Nahed Fikry Hassan khedr (2021)[15] conducted a descriptive study to assess knowledge and practices of 242 pregnant women toward danger signs of pregnancy at Obstetrics and Gynecology Department and Clinics at Mansoura General Hospital. The findings revealed that knowledge score of danger signs was poor in 57.9% of subjects while fair in 29.3% and good in less than 12.8% of them. During pregnancy the most commonly identified danger signs were

vaginal bleeding (69.8%) followed by severe abdominal pain (56.20%) and sever vomiting (55.4%). A significant association was found between women's general characteristics and their knowledge about pregnancy danger signs ($p < 0.001$). More than two thirds (65.3%) of pregnant women had inadequate practices regarding danger signs of pregnancy. The study recommended developing antenatal classes programs for all pregnant women about pregnancy danger signs and about the actual time to seek emergency medical care. In addition, increase the mass media to disseminate correct and relevant information about danger signs of pregnancy to pregnant women, families and communities.

3. RESEARCH METHODOLOGY

3.1 Population and sample: The population included all the antenatal women attending the clinic. Convenient sampling technique was used to select the required sample which included antenatal women willing to participate and were present at the time of data collection. Sample size was 30 (15 in experimental group and 15 in control group).

Table 1: Schematic representation of research design

GROUP	Pre-test	Intervention	Post-test
	Day 1	Day 1	Day 15
Antental women (Experimental Group) N=15	O_1	X	O_2
Antenatal women (Control Group) N=15	O_3	X	O_4
	Assessment of knowledge through Interview Schedule (Pre test)	Intervention by implementation of VATM (Video Assisted Teaching Method)	Assessment of knowledge through same interview schedule(post test)

3.2 Data and Sources of data: Structured Interview Schedule was used to evaluate the effectiveness of VATM on knowledge of antenatal women regarding identification of Alarming signs leading to obstetrical emergencies.The tool consisted of following parts: **Part 1:** Socio-Demographic Characteristics of Antenatal Women (7 Items).**Part 2:** Obstetrical Characteristics of Antenatal Women (5 Items).**Part 3:** Assessment of Alarming Signs leading to Obstetrical Emergencies (17 items) **Part 4:** Knowledge assessment among antenatal women regarding identification of Alarming Signs leading to Obstetrical Emergencies (31 Items)

Description of VATM: the VATM was entitled as Video Assisted Teaching Method on knowledge of antenatal women regarding identification of Alarming signs leading to obstetrical emergencies. It included Alarming signs during pregnancy (vaginal bleeding swelling of face, hands, feet and legs, continuous severe headache, blurred vision, breathlessness, decreased urine output and high BP, Convulsions, severe backache, high fever, excessive vomiting, premature rupture of membranes, reduced or no fetal movements, epigastric pain), Alarming signs during labour leading to obstetrical emergencies (prolonged labour), retained placenta, continuous severe headache, high fever, cord prolapse) and Alarming signs during

puerperium which may lead to obstetrical emergencies (excessive vaginal bleeding, increased heart rate/ palpitation, high fever, offensive or foul smelling vaginal discharge/lochia, continuous severe headache, high BP, Convulsions, loss of consciousness, calf pain).

Table 2 : Data Collection Schedule:

Date	Day	Group	No. of subjects	Action taken per day	Time
10-01-023 11-01-023 12-01-023	Day 1 Day 2 Day 3	Experimental group	05 05 05	*Pre test with structured Interview schedule *Implementation of VATM	*9-10 a.m *10-10:45
15-01-023 16-01-023 17-01-023	Day 4 Day 5 Day 6	Control Group	05 05 05	*Pre test with structured Interview schedule *Implementation of VATM	9-10 a.m *10-10:45
27-01-023 28-01-023 29-01-023	Day 7 Day 8 Day 9	Experimental group	05 05 05	Post test conducted	9-10 a.m
01-02-023 02-02-023 03-02-023	Day 10 Day 11 Day 12	Control Group	05 05 05	Post test conducted	9-10 .m

3.3 Variables

Independent Variable: Video Assisted Teaching Method (VATM) on knowledge of antenatal women regarding identification of Alarming signs leading to obstetrical emergencies.

Dependent variable: Knowledge of antenatal women regarding identification of Alarming signs leading to obstetrical emergencies.

Demographic variables: Age (in years), weight, Occupation, Educational status, Place of Residence, Availing use of social media for maternity information, Type of family.

Obstetric variables: Gravida, Parity, Gestational age, Mode of last delivery , if multiparous, number of live children.

3.4 **Statistical tools:** Descriptive statistics has been used to find the maximum and minimum score, range, mean, mode, standard deviation and normal distribution of the data of all variables under the study. Paired and Unpaired t test has been used to find the effectiveness of VATM. Chi square test has been used to find the association between demographic variable and knowledge score

RESULTS AND DISCUSSION

SECTION I: Description of demographic profile

Table 3: Frequency distribution of Socio-Demographic Charactersitics

S.NO	SOCIO DEMOGRAPHIC PROFORMA		Experimental group (N=15)	Control group (N=15)	Frequency %age (Exp group)	Freqency %age (Control group)
1.	**Age (in Years)**	<20	1	1	6.7%	0.0%
		20-29	9	10	60.0%	66.7%
		≥ 30	5	5	33.3%	33.3%
2.	**Weight (in Kg)**	<60	4	0	26.7%	0.0%
		60-70	6	8	40.0%	53.3%
		>70	5	7	33.3%	46.7%
3.	**Occupation**	Home maker	12	15	80.0%	100.0%
		Employed	1	0	6.7%	0.0%
		Health Professional	1	0	6.7%	0.0%
		Non-health Professional	1	0	6.7%	0.0%
4.	**Educational status**	No formal education	1	2	6.7%	13.3%
		Primary	2	4	13.3%	26.7%
		Sr. Secondary	5	8	33.3%	53.3%
		Graduate and above	7	1	46.7%	6.7%
5.	**Place of residence**	Rural	8	9	53.3%	60.0%
		Urban	7	6	46.7%	40.0%
6.	**Availing use of social media for information about maternity care**	Yes	10	7	66.7%	46.7%
		No	5	8	33.3%	53.3%
7.	**Type of family**	Nuclear	5	2	33.3%	13.3%
		Joint	10	13	66.7%	86.7%

Table 3 reveals that in Experimental group, majority(60%) of the subjects were in the age group of 20-29 yrs, majority (40%) had weight of 60-70kg , majority (80%) were home maker, majority (46.7%) were graduate and above, majority (53.3%) were from rural area, majority(66.7%) availed the use of social media for information about maternity care and majority (66.7%) lived in joint family while as in control group majority(66.7%) of the subjects were in the age group of 20-29 yrs, majority (53.3%) had weight of 60-70kg , 100% were home maker, majority (53.3%) had senior sec qualification,, majority (60%) were from rural area, majority(53.3%) availed the use of social media for information about maternity care and majority (86.7%) lived in joint family

SECTION II: Description of Obstetric characteristics

Table 4: Frequency Distribution Of Obstetric Charactersitics

OBSTETRICAL CHARACTERISTICS OF ANTENATAL WOMEN		Experimental (%)	Control (%)	Experimental (N=15)	Control (N=15)
1. Gravida	One	66.7%	26.7%	10	4
	≥Two	33.3%	73.3%	5	11
2. Parity	Zero	66.7%	40.0%	10	6
	One	20.0%	53.3%	3	8
	≥Two	13.3%	6.7%	2	1
3. Gestational Age	<12 weeks	33.3%	20.0%	5	3
	12-28 weeks	40.0%	40.0%	6	6
	>28 weeks	26.7%	40.0%	4	6
4. Mode of last delivery, if multiparous	Spontaneous vaginal delivery	0.0%	0.0%	0	0
	Assisted vaginal delivery	0.0%	0.0%	0	0
	Caesarean delivery	33.3%	60.0%	5	9
5. Number of live children	One	20.0%	53.3%	3	8
	≥Two	13.3%	6.7%	2	1

Table 4 reveals that in Experimental group, majority(66.7%) of the subjects were primigravida, majority (66.7%) were nullipara, majority (40%) were in the gestational age of 12-28 weeks, 33.3 % had previous C-section and majority (20%) have only single live child while as in Control group, majority (73.3%) of the subjects are multigravida, majority (53.3%) are primipara, 40% were in the gestational age of 12-28 weeks and > 28 weeks each and majority (60%)% have previous C-section and majority (53.3%) have only single live child.

SECTION III: ASSESSMENT OF ALARMING SIGNS LEADING TO OBSTETRICAL EMERGENCIES DURING PREGNANCY IN EXPERIMENTAL GROUP AND CONTROL GROUP

Table 5: Assessment of alarming signs leading to obstetrical emergencies during pregnancy in experimental group and control

ALARMING SIGNS LEADING TO OBSTETRICAL EMERGENCIES DURING PREGNANCY		Experimental group (%)	Control group (%)	Experimental group (N=15)	Control group (N=15)
1. Recurrent Vaginal bleeding	No	100.0%	100.0%	15	15
	Yes	0.0%	0.0%	0	0
2. Swelling of face, hands and legs	No	60.0%	60.0%	9	9
	Yes	40.0%	40.0%	6	6
3. Continuous severe headache	No	33.3%	80.0%	5	12
	Yes	66.7%	20.0%	10	3
4. Blurred vision	No	93.3%	100.0%	14	15
	Yes	6.7%	0.0%	1	0
5. Breathing difficulty (dyspnea)	No	46.7%	60.0%	7	9
	Yes	53.3%	40.0%	8	6
6. Decreased urine output	No	80.0%	86.7%	12	13
	Yes	20.0%	13.3%	3	2
7. High BP	No	86.7%	93.3%	13	14
	Yes	13.3%	6.7%	2	1
8. High Blood sugar	No	86.7%	86.7%	13	13
	Yes	13.3%	13.3%	2	2
9. Anaemia	No	93.3%	93.3%	14	14
	Yes	6.7%	6.7%	1	1
10. Convulsions	No	100.0%	100.0%	15	15
	Yes	0.0%	0.0%	0	0
11. Severe backache	No	33.3%	33.3%	5	5
	Yes	66.7%	66.7%	10	10
12. Severe abdominal pain	No	33.3%	46.7%	5	7
	Yes	66.7%	53.3%	10	8
13. High grade fever	No	73.3%	86.7%	11	13
	Yes	26.7%	13.3%	4	2
14. Excessive vomiting	No	26.7%	20.0%	4	3
	Yes	73.3%	80.0%	11	12
15. Gush of water from vagina (PROM)	No	93.3%	100.0%	14	15
	Yes	6.7%	0.0%	1	0
16. Decreased fetal movements	No	86.7%	86.7%	13	13
	Yes	13.3%	13.3%	2	2
17. Epigastric pain	No	20.0%	46.7%	3	7
	Yes	80.0%	53.3%	12	8

Table 5 reveals that majority of the subjects in experimental group had continuous severe headache (66.7%), difficulty in breathing (dyspnea) (53.3%), severe backache (66.7%), severe abdominal pain (66.7%), excessive vomiting(73.3%), and epigastric pain (80%) while as in control group, majority of the subjects

had severe backache (66.7%), severe abdominal pain (53.3%), excessive vomiting(80%), and epigastric pain (53.3%)

SECTION IV : PRE AND POST-TEST KNOWLEDGE ASSESSMENT AMONG ANTENATAL WOMEN REGARDING IDENTIFICATION OF ALARMING SIGNS LEADING TO OBSTETRICAL EMERGENCIES DURING PREGNANCY, LABOUR AND PUERPERIUM IN EXPERIMENTAL GROUP AND CONTROL GROUP

Table 6: Frequency & Percentage distribution of Pre-test knowledge score in Experimental and Control Group

PRE-TEST		
Level of knowledge	**EXPERIMENTAL GROUP**	**CONTROL GROUP**
GOOD KNOWLEDGE(24-31)	0(0%)	2(13.3%)
FAIR KNOWLEDGE(16-23)	7(46.7%)	5(33.3%)
POOR KNOWLEDGE(0-15)	8(53.3%)	8(53.3%)

Maximum=31 Minimum =0

Table 6 reveals that majority of the subjects in experimental group (53.3%) and Control group (53.3%) had poor level of knowledge regarding identification of alarming signs leading to obstetrical emergencies

Table No 7: Comparison of Pre-test knowledge score b/w Experimental & Control Group

N= 15

.	Descriptive Statistics	Mean Score	S.D.	Median Score	Maximum	Minimum	Range	Mean%
PRE-TEST	Experimental	14.73	3.195	15	19	9	10	47.53
	Control	14.80	6.120	15	27	6	21	47.74

Maximum=31 Minimum=0

Table 7 reveals that the mean pre test knowledge of experimental group and Control group is 47.53% and 47.74% respectively

Table 8: Frequency & Percentage distribution of Post-test knowledge scores of Experimental and Control Group

POST-TEST KNOWLEDGE		
Level of Knowledge score	**EXPERIMENTAL GROUP**	**CONTROL GROUP**
GOOD KNOWLEDGE(24-31)	14(93.3%)	2(13.3%)
FAIR KNOWLEDGE(16-23)	1(6.7%)	6(40%)
POOR KNOWLEDGE(0-15)	0(0%)	7(46.7%)

Maximum=31 Minimum =0

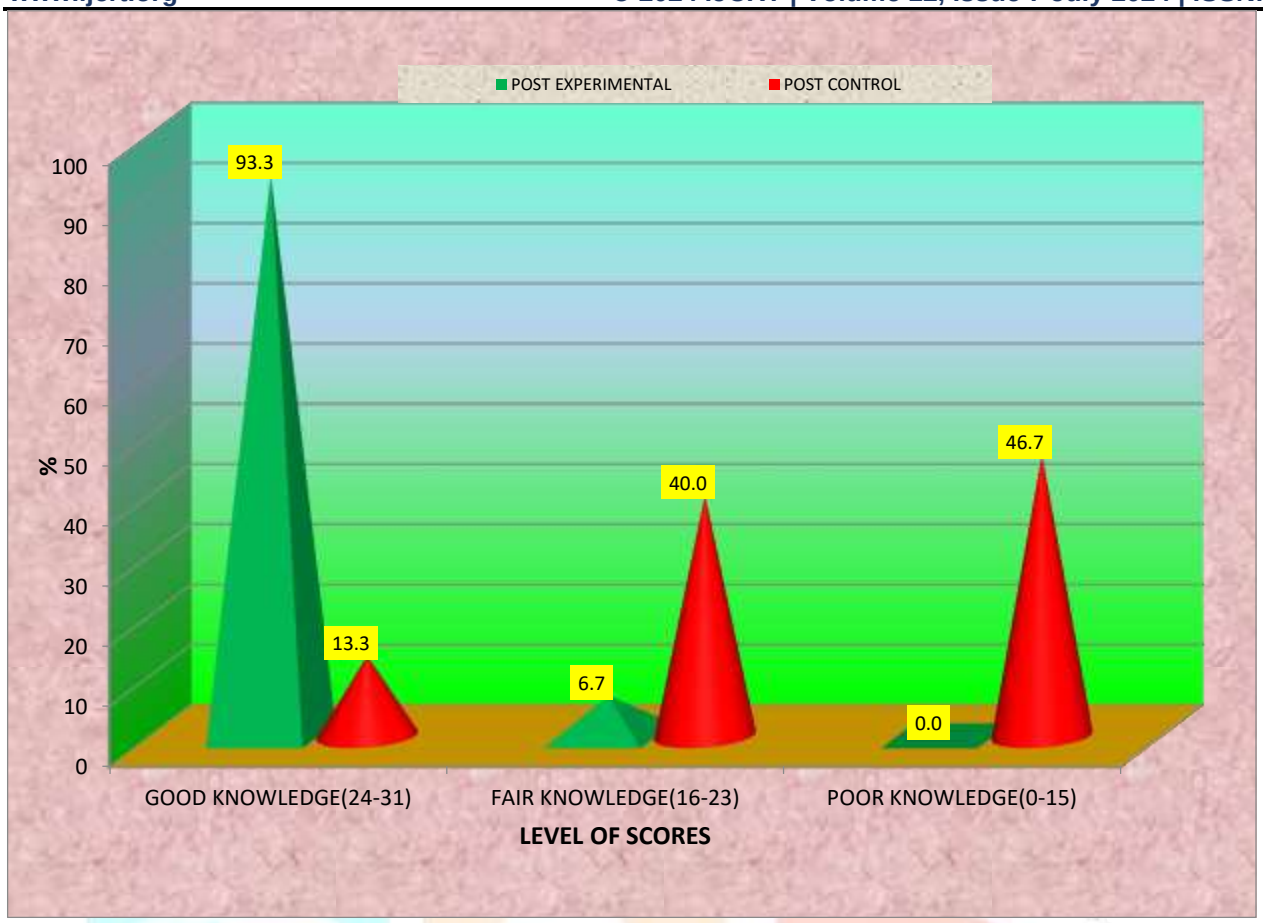

Fig 1: Frequency & Percentage distribution of Post-test knowledge scores of Experimental and Control Group

Figure 1reveals that majority of the subjects in Experimental group (93.3%) have good level of post test knowledge while as in control group majority of the subjects (46.7%) have poor level of post test knowledge regarding identification of alarming signs leading to obstetrical emergencies

Table 9: Comparison of Post –test knowledge (descriptive statistics) b/w Experimental & Control Group of knowledge.

N=15+15

.	Descriptive Statistics	Mean Score	S.D.	Median Score	Maximum	Minimum	Range	Mean%
Post-test	Experimental	26.73	1.668	27	29	23	6	86.24
	Control	15.67	5.851	16	27	7	20	50.54

Maximum=31 Minimum=0

Table 9 reveals that the mean percentage of post test knowledge of Experimental group and Control group is 86.24% and 50.54% respectively

SECTION V: Effectiveness of VATM on Pre And Post Test Knowledge Scores

Table 10: Frequency & percentage distribution of pre-test and post-test Knowledge scores of both Experimental and Control groups

CRITERIA MEASURE OF KNOWLEDGE SCORE				
SCORE LEVEL	**EXPERIMENTAL GROUP (PRE-TEST)**	**CONTROL GROUP (PRE-TEST)**	**EXPERIMENTAL GROUP (POST-TEST)**	**CONTROL GROUP (POST-TEST)**
GOOD KNOWLEDGE(24-31)	0(0%)	2(13.3%)	14(93.3%)	2(13.3%)
FAIR KNOWLEDGE(16-23)	7(46.7%)	5(33.3%)	1(6.7%)	6(40%)
POOR KNOWLEDGE(0-15)	8(53.3%)	8(53.3%)	0(0%)	7(46.7%)

Maximum=31 Minimum =0

Table 10 reveals that in pre test, majority of the subjects in both experimental group (53.3%) as well as Control group (53.3%) have poor level of knowledge while as in post test , majority of the subjects in experimental group (93.3%) have good level of knowledge but in control group , majority(46.7%) still have poor level of knowledge regarding identification of alarming signs leading to obstetrical emergencies

Table 11: Comparison between Pre-test and Post-test knowledge scores of Experimental and Control groups (using Paired and Unpaired t test)

		KNOWLEDGE SCORE				Paired T Test		
		Pretest		Posttest				
Group	N	Mean	SD	Mean	SD	df	T	Result
Experimental Group	15	14.73	3.195	26.73	1.668	14	18.974	P value=<0.001Significant
Control Group	15	14.800	6.120	15.67	5.851	14	1.407	P value=0.181 Non Significant
Unpaired T Test	df	28		df	28			
	T	0.037		T	7.044			
	Result	P value=0.97 Non Significant		Result	P value=<0.001 Significant			

Maximum = 31Minimum = 0

Table 11 reveals that using the unpaired t test, the results show that there is no significant difference between mean pre test knowledge scores of Experimental group and Control group, however there is significant difference between mean post test knowledge scores of Experimental group and Control group. The results of Paired t test reveal that there is no significant difference between mean pre test and post test knowledge scores of Control group but there is significant difference between mean pre test and post test knowledge scores of Experimental group.

SECTION VI

This section deals with the findings related to the association of Pre-test knowledge score of Experimental group with the selected demographic variables and Obstetric characteristics.

Table 12: Association of Pre-test knowledge Scores of Experimental group with the selected Demographic Variables and Obstetric characteristics

DEMOGRAPHIC VARIABLES AND OBSTETRIC CHARACTERISTICS		**ASSOCIATION OF PRE-TEST KNOWLEDGE SCORE OF EXPERIMENTAL GROUP WITH DEMOGRAPHIC VARIABLES AND OBSTETRIC CHARACTERISTICS**							
Variables	**Opts**	**GOOD KNOWLEDGE**	**FAIR KNOWLEDGE**	**POOR KNOWLEDGE**	**Chi Test**	**P Value**	**df**	**Table Value**	**Result**
Demographic variables 1. Age (in Years)	<20 Years	0	0	1	3.750	0.153	2	5.991	Not Significant
	20-29 Years	0	3	6					
	≥ 30 Years	0	4	1					
2. Weight (in Kg)	<60 Kg	0	1	3	1.138	0.566	2	5.991	Not Significant
	60-70 Kg	0	3	3					
	>70 Kg	0	3	2					
3. Occupation	Home maker	0	4	8	4.286	0.232	3	7.815	Not Significant
	Employed	0	1	0					
	Health Professional	0	1	0					
	Non-health Professional	0	1	0					
4. Educational status	No formal education	0	1	0	6.046	0.109	3	7.815	Not Significant
	Primary	0	0	2					
	Sr. Secondary	0	1	4					
	Graduate and above	0	5	2					
5.Place of residence	Rural	0	4	4	0.077	0.782	1	3.841	Not Significant
	Urban	0	3	4					
6.Availing use of social media for information about maternity care	Yes	0	5	5	0.134	0.714	1	3.841	Not Significant
	No	0	2	3					
7.Type of family	Nuclear	0	2	3	0.134	0.714	1	3.841	Not Significant
	Joint	0	5	5					
Obstetric Characteristics 1. Gravida	One	0	4	6	0.536	0.464	1	3.841	Not Significant
	≥Two	0	3	2					
2. Parity	Zero	0	4	6	2.679	0.262	2	5.991	Not Significant
	One	0	1	2					
	≥Two	0	2	0					

3. Gestational Age	<12 weeks	0	1	4	2.411	0.300	2	5.991	Not Significant
	12-28 weeks	0	4	2					
	>28 weeks	0	2	2					
4. Mode of last delivery, if multiparous	Spontaneous vaginal delivery	0	0	0		N.A		N.A	
	Assisted vaginal delivery	0	0	0					
	Caesarean delivery	0	3	2					
5. Number of live children	One	0	1	2	2.222	0.136	1	3.841	Not Significant
	≥Two	0	2	0					
	Yes	0	6	6					

Table 12 reveals that the calculated chi-square values are less than the table value at the 0.05 level of significance. Hence, there is no significant association between the pre-test knowledge score of Experimental Group with the selected demographic variables(Age, Weight, Occupation, Educational status, Place of residence, Availing use of social media for maternity information, Type of family).The results also reveal that there is no significant association between pre test knowledge score and obstetric characteristics (Gestational age, Gravida, Parity And Number of live children).

DISCUSSION

The findings of the study revealed that the mean post test knowledge score of Experimental group is 86.24% which is much higher than the mean post test knowledge score of Control group that is only 50.54%. Paired T test shows that there is significant difference between mean post test and pre test knowledge score at 0.001 level of significance in Experimental Group while as in Control group there is no significant difference between mean post test and pre test knowledge score at 0.181evel of significance. This proves that VATM has been effective in improving the knowledge scores of experimental group. However there is no improvement in knowledge scores of Control group. The findings of the study are supported by the study conducted by Gobran, M. , Fatah, M. , Ramadan, M. , Amer, G. , Rabeh, M. , Elshafei, R., et al in 2021 to evaluate the effectiveness of the education program on pregnant women knowledge on obstetric danger signs in antenatal clinics (M.C.H centers) affiliated to the available geographical health zones in EL-fayoum rural area. The results revealed that there is an improvement in 63% of pregnant women knowledge after educational program in all aspects. The study concluded that educational program had been effective in improving women knowledge regarding danger signs for pregnant women in rural areas.

The results of the present study also reveal that that there is no significant association between the pre-test knowledge score and demographic variables of Experimental group (Age, Weight, Occupation, Educational status, Place of residence, Availing use of social media for maternity information, Type of family). These findings are supported by a study conducted by Amoura Saad Eldeen Zaki, Shaimaa Fouad, Nahed Fikry Hassan khedr in 2021 to assess knowledge and practices of 242 pregnant women toward danger signs of pregnancy at Obstetrics and Gynecology Department and Clinics at Mansoura General Hospital. The findings revealed that knowledge score of danger signs was poor in 57.9% of subjects while fair in 29.3% and good in less than 12.8% of them. During pregnancy the most commonly identified danger signs were vaginal bleeding (69.8%) followed by severe abdominal pain (56.20%) and sever vomiting (55.4%). No significant association was found between women's general characteristics and their knowledge about pregnancy danger signs ($p < 0.001$). More than two thirds (65.3%) of pregnant women had inadequate practices regarding danger signs of pregnancy.

NURSING IMPLICATIONS:

Nursing practice

Educational programmes conducted by nursing personnel both in the hospital and community areas help in improving knowledge of antenatal women towards identification of alarming signs leading to obstetrical emergencies. Health information regarding healthy pregnancy can be imparted through various methods like lectures, mass media, pamphlets, Information booklet, structured teaching programme etc. Hence educational programmes with effective teaching strategies will motivate pregnant women to follow healthy practice during pregnancy to prevent obstetrical emergencies.

Nursing education

The student's educational curriculum should emphasize on imparting necessary knowledge to pregnant women on various preventive and promotive health practices.

Nursing curriculum should provide an opportunity to plan and conduct teaching programmes in variety of settings Viz family, community, industry, hospital, schools etc. Several in-service programme, conferences, workshops and seminars can be conducted to keep nurses updated with newer teaching strategies, and newer research findings which are useful regarding prevention of obstetrical emergencies.

Nursing research : Nurses being the largest group in the health care delivery system and being more close to the people should take an initiative to conduct further research regarding prevention of obstetrical emergencies. The present study revealed that pregnant women had inadequate knowledge regarding identification of alarming signs leading to obstetrical emergencies, so nurses especially who are working in community should take an initiative in conducting research studies in the community. An educational programme can be conducted in the community to educate the public.

Nursing administration

The nurse administrator should take interest in providing information regarding prevention of obstetrical emergencies to the public or to the community. The nurse as an administrator should plan and organize educational programmes for nursing personnel and motivate them to conduct programmes beneficial to the pregnant women. Planning and organization of such programmes require efficient teamwork, planning for manpower, money, material and methods and minutes to conduct successful educational programmes, both at the hospital & community level. Health education material such as leaflets and pamphlets should be made available to the public in general. She should also encourage and depute nurses to participate in such programmes conducted by any other voluntary organization.

Further a nurse administrator should provide horizontal stimulation, as well as vertical enhancement opportunities that produce competent midwives/ nurses. Nurse administrator should grant funds for conducting various educational campaigns. The nurse administrator also in collaboration with various government and nongovernmental organizations encourage nurses to take an active part at primary level of community for prevention of obstetrical emergencies so as to reduce maternal and fetal mortality and morbidity.

LIMITATIONS:

The limitations recognized in the study were:

1. The study was limited to small size (30), which imposes limitation on generalization.
2. Sample was selected only from one hospital at Srinagar district of Jammu and Kashmir; hence generalization can only be made for the sample studied.

RECOMMENDATIONS:

- The study recommended developing antenatal classes for all pregnant women about obstetric danger signs and about the proper time to seek medical care. In addition, the mass media should be utilized and community organizations mobilized to disseminate correct and relevant information about danger signs of obstetric complications to women, families and communities.
- Establishment of in-service training programs and continuous supervision in rural areas to raise women knowledge and practice regarding obstetric danger signs.
- In addition, increase the mass media to disseminate correct and relevant information about danger signs of pregnancy to pregnant women, families and communities.

REFERENCES

1. International Institute for population sciences. National family health survey (NFHS-3), 2005-06: India. VI Mumbai: International Institute for Population Sciences; 2007. p. 540.

2. Registrar General of India. Sample registration systemmaternal mortality in India: 1997-2003: trends, causes and risk factors. New Delhi: Registrar General of India; 2006. p. 29.

3. Ronsmans C, Graham WJ. Lancet Maternal Survival Series Steering Group. Maternal mortality: who, when, where, and why. Lancet 2006;368(9542):1189-1200.

4. Pembe AB, Urassa DP, Carlstedt A, Lindmark G, Nyström L, Darj E. Rural Tanzanian women's awareness of danger signs of obstetric complications. BMC Pregnancy and Childbirth 2009;9:12.

5. Graham W. Every pregnancy faces risks. Plan Parent Chall 1998;1:13-14.

6. Stevens RD. Safe motherhood: an insight into maternal mortality in the developing world. Health Millions 2000;26(3):34-37.

7. JHPIEGO. Monitoring birth preparedness and complication readiness: tools and indicators for maternal and newborn health. Baltimore: JHPIEGO; 2004. p. 1-44.

8. World Health Organization: mother-baby package: implementing safe motherhood in countries. Practical guide WHO/ FHE/MSM/94.11. Geneva: World Health Organization; 1994.

9. JHPIEGO. Maternal and Neonatal Health (MNH) Program Birth Preparedness and Complication Readiness: A Matrix of Shared Responsibilities (Original BP/CR Matrix poster published in 2001. English introductory text revised in 2004) JHPIEGO; 2004.

10. Kabakyenga JK, Ostergren PO, Turyakira E, Pettersson KO. Knowledge of obstetric danger signs and birth preparedness practices among women in rural Uganda. Reproductive Health 2011;8:33.

11. https://www.mhtf.org/topics/the-sustainable-development-goals-and-maternal-mortality/

12. Vijay NR, Kumare B, Yerlekar DS. Awareness of Obstetric Danger Signs among Pregnant Women in Tertiary Care Teaching Hospital. J South Asian Feder Obst Gynae 2015;7(3):171-175

13. Anaam Ebrahim El-Nagar, Manal Hassan Ahmed, Ghada Abd El-Salam Belal. Knowledge and Practices of Pregnant Women regarding Danger Signs of Obstetric Complications. IOSR Journal of Nursing and Health Science 2017; 6 (1): 30-41

14. Gobran, M. , Fatah, M. , Ramadan, M. , Amer, G. , Rabeh, M. , Elshafei, R. , Bosilah, A. , Khalil, H. , Hassanine, S. , Mostafa, M. , Bakry, M. , Ibrahim, S. , Fattah, E. and Abdelbary. A. Educational Program

for Pregnant Women Regarding Obstetrics Dangerous Signs in Rural Areas. *Open Journal of Obstetrics and Gynecology*.2021:11(5);529-552.

15. Amoura Saad Eldeen Zaki, Shaimaa Fouad, Nahed Fikry Hassan khedr. Assessment of knowledge and practices of pregnant women toward danger signs of pregnancy. Mansoura Nursing Journal (MNJ).2021;8(1):13-32