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"A PRE-EXPERIMENTAL STUDY TO EVALUATE THE EFFECTIVENESS OF VIDEO ASSISTED TEACHING PROGRAMME ON KNOWLEDGE REGARDING ANTENATAL EXERCISE AMONG ANTENATAL MOTHERS AT PHC, KOLHAPUR"

Nursing

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ABSTRACT

Background: The antenatal period is a time of physical preparation of birth and parenthood. Becoming a parent is a time of intense learning both for parents and for those close to them. Most women benefit greatly from exercising throughout their pregnancies and these exercises are called as antenatal exercises for example transverses exercises, pelvic tilting or rocking, pelvic floor exercise, foot and leg exercises, breathing exercise, walking and aerobics, yoga etc.1

Objectives:

1) To evaluate the effectiveness of video assisted teaching programme on knowledge regarding antenatal exercises among antenatal mothers.
2) To find out an association between mean pre-test knowledge score regarding video assisted teaching programme among antenatal mothers with their selected socio demographic variables.

Methodology: A pre experimental, one group pre-test post-test research design was used. The setting of main study was selected that is Shiroli PHC, Kolhapur. The non-probability, purposive sampling technique was used and 60 samples were selected as per inclusion criteria. The data was collected by using selected socio demographic variables and structured knowledge questionnaire on knowledge regarding antenatal exercise. Pre-test was conducted on 09/03/2022 and administered video assisted teaching programme on antenatal mothers on same day after pre-test. The post-test was conducted after 7 days that is on 8th day on 16/03/2022. The collected data were analysed and tabulated. **Results:** The result showed that, out of 60 subjects, In pre-test majority of the subjects 39 (65%) had average knowledge and 21 (35%) subjects had poor knowledge, where as in post-test 26 (43.34%) subjects had good knowledge, 34 (56.66%) subjects had average knowledge and none of the subjects had poor knowledge. The calculated paired 't' value (tcal = 32.32) was greater than tabulated value (ttab = 1.67). This indicated that the gain in knowledge score was statistically significant at $p<0.05$ level. Therefore, the findings revealed that the video assisted teaching programme on antenatal exercise was effective in increasing the knowledge among subjects. There was significant association between pre-test knowledge scores with selected socio-demographic variable like previous information regarding antenatal exercise [$\chi 2cal = 4.97^*$, $\chi 2tab = 3.84$]. The calculated chi-square values was greater than tabulated value at 0.05 level of significance. This indicates that there was significant association between pre-test knowledge scores with at 0.05 level of significance. **Conclusion:** The present study revealed that in post-test majority of 26 (43.34%) subjects had good knowledge, 34 (56.66%) subjects had average knowledge and none of the subjects had poor knowledge. Therefore, it was concluded that the video assisted teaching programme on knowledge regarding antenatal exercise helped to increase the knowledge of antenatal mothers.

KEYWORDS

Effectiveness; Antenatal mothers; Video assisted teaching programme.

INTRODUCTION:

Every mother wants to enjoy the nine months periods with the baby inside her, the joyful experience of pregnancy is not always joyful. Sometimes it is associated with problems like backache, leg cramps and pelvic pain. These are all due to poor activity, lack of knowledge regarding antenatal exercises.[2] The WHO conducted a survey regarding pregnancy related complications in developing countries. The findings showed every year some eight million women suffer pregnancy related complications over a half of a million die.[3]

During pregnancy mother will need to discuss exercise plans with doctor, Midwifes or other health care provider early on and make a few adjustments to normal exercise routine. The level of exercise recommended will depend, in part, on level of pre-pregnancy fitness.[4] The educational role of the midwife is integrated into every aspect of her work. Knowledge and awareness about the focused antenatal care at the right time will help to reduce maternal mortality and morbidity. [5]

Women who continue exercising regularly through the end of their pregnancies demonstrated the following reduced risks during the birth process. Decrease in the need for pain relief is 35%, decrease in the incidence of maternal exhaustion is 75%, decrease in the need to artificially rupture membranes is 50%, decrease in the need to induce or augment labour with Pitocin is 50%, decrease in the need to intervene because of abnormalities in the fetal heart rate is 50%, decrease in the need for episiotomy is 55%, decrease in the need for operative intervention (forceps or caesarean section) is 75%, more than 65% of the exercising women delivered in less than four hours, delivered before their due date (but fewer of them delivered before 37 weeks–preterm–than the control group) is 72%. The exercising women delivered, on average, 5-7 days earlier than active women who did not exercise regularly.[6]

Exercise during pregnancy do not only help in maintaining musculoskeletal fitness but also helps in controlling weight, maintaining blood glucose, to cope with various psychological and physical stresses during pregnancy and labour, strengthening muscles for labour and improves blood circulation. Pelvic tilt exercise is a commonly followed prenatal exercise used to strengthen pelvic floor muscle which may stretch during delivery, hence, prepare for labour. To cope with emotional stresses and labour pain, breathing techniques and relaxation techniques are proved to be successful. Antenatal exercise also decreases adipose tissue growth; increases stress tolerance and advances neuro behavioural relaxation in the foetus .[7]

MATERIAL AND METHOD:

A pre-experimental, one group pre-test post-test research design was used to conduct study at Shiroli PHC, Kolhapur to evaluate the effectiveness of video assisted teaching programme on knowledge regarding antenatal exercise among antenatal mothers. The non-probability, purposive sampling technique was used and 60 samples were selected as per inclusion criteria. The tool was developed into two section, Section A: Selected socio demographic variables, Section B: Structured knowledge questionnaires on knowledge regarding antenatal exercise. Total six selected socio demographic variables were used in the study and those were age in years, religion, mother's education, occupation, type of family, previous information regarding antenatal exercise. The Structured knowledge questionnaires consisted of 36 multiple choice questions on knowledge regarding antenatal exercise. The reliability of the tool was tested by using Karl Pearson's correlation coefficient formula. The reliability computed was r = 0.87.

The main study was conducted from 09/03/2022 to 16/03/2022. The researcher introduced herself to the subjects and explained the purpose of the study. Informed consent was obtained from the subjects. Pre-test

was conducted by administering the tool to subjects to evaluate knowledge regarding antenatal exercise. Average time taken by subjects for filling up the tool was 35 minutes approximately. On the same day video assisted teaching programme was administered to the subjects for 30 minutes after pre-test. Post test was conducted on 8th day of pre-test on 16/03/2022. The collected data was analysed and tabulated.

RESULT:

Section I: Findings related to distribution of selected socio-demographic variables of subjects.

In this section the researcher analysed and categorized the subjects of the study to various groups based on the selected socio demographic variables.

- Majority of the subjects 30(50%) belonged to the age group of 23-27 years, 22 (36.66%) subjects belonged to the age group of 18-22 years, 08(13.34%) subjects belonged to the age group of 28- 32 years.
- Majority of the subjects 48(80%) belonged Hindu religion, 10(16.66%) subjects belonged to Muslim religion and 02(3.34%) belonged to Christian religion.
- Majority of subjects 25(41.66%) subjects were studied up to secondary education, 11(18.34%) were studied up to primary education, and 17(28.34%) subjects were studied up to higher secondary education and 07(11.66%) subjects were graduate and above.
- Majority of the subjects 45(75%) were house wife, 02(3.33%) subjects were labourer, 11(18.34%) subjects were doing private service, 02(3.33%) subjects were running own business.
- Majority of subjects 31(51.66%) belonged to joint family, 25(41.67%) subjects belonged to nuclear family and 04(6.67%) subjects belonged to extended family.
- Majority of subjects 52(88.66%) were not having any previous information regarding antenatal exercise while minimum 08(13.34%) were having previous information regarding antenatal exercise, in that 01(1.66%) subjects got previous information from family members, 02(3.34%) received previous information from Health care worker and 05(8.34%) received previous information from social media (t.v. radio, newspaper, internet, etc).

Section II: Findings related to distribution of pre-test and post-test knowledge scores of subjects regarding antenatal exercise.

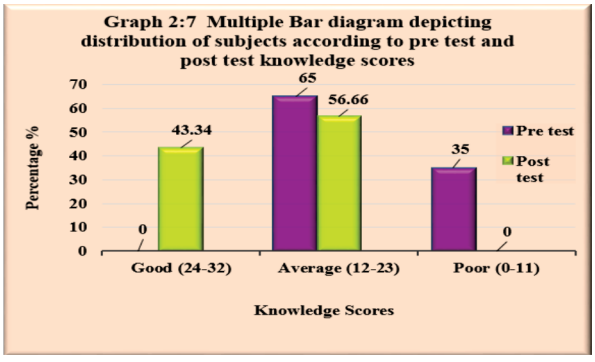
In this section the researcher analysed and categorized the pre-test and post-test knowledge scores of subjects regarding antenatal exercise**.**

Table 2: Frequency and percentage distribution of pre-test and post-test knowledge scores of subjects regarding antenatal exercise. n = 60

Knowledge scores	Pre test		Post test	
	Frequency f	Percentage %	Frequency f	Percentage %
Good (24-32)	00	00	26	43.34
Average (12-23)	39	65	34	56.66
Poor (0-11)	21	35	00	00

Table 2: Indicated that,

- In pre-test majority of the subjects 39 (65%) had average knowledge and 21 (35%) subjects had poor knowledge, where as in post-test 26 (43.34%) subjects had good knowledge, 34 (56.66%) subjects had average knowledge and none of the subjects had poor knowledge.



Section III: Findings related to mean, median, mode, range, standard deviation, and their differences of pre-test and post-test knowledge scores of subjects regarding antenatal exercise. n = 60

Table 3: Indicated that,

Area of Analysis	Mean	Median	Mode	Standard Deviation	Range
Pre test	12.73	13	10	2.62	10
Post test	23.01	23	23	3.12	15
Difference	10.28	10	13	0.5	05

- The overall knowledge score of subjects was increased by mean difference 10.28 and median difference was 10 where as mode difference was 13.
- The variability around the mean of knowledge score distribution was 0.5.
- The range between the highest and lowest score was increased by 05 after Administer of video assisted teaching programme.

Section IV:

In this section the researcher analysed and categorized the mean difference, standard error difference and paired 't' values of knowledge scores of subjects regarding antenatal exercise.

Table 4: Effectiveness of video assisted teaching programme on knowledge regarding antenatal exercise among subjects. n = 60

Mean difference	Standard error	Paired 't' test		Degree of freedom *df*
		Calculated value	Tabulated value	
10.28	0.743	32.32*	1.67	59

***p < 0.05**

Table 4: Indicated that,

- The calculated paired 't' value (t_{cal}= 32.32) was greater than tabulated value (t_{tab} = 1.67).
- This indicated that the gain in knowledge score was statistically significant at p<0.05 level.
- Therefore, the findings revealed that the video assisted teaching programme on antenatal exercise was effective in increasing the knowledge among subjects.

Section V:

In this section the researcher analysed and categorized the association between pre-test knowledge scores of subjects regarding antenatal exercise with their selected socio-demographic variables.

Table 5: Association between pre-test knowledge scores of subjects with their selected socio-demographic variables n = 60

Sr no	Variables	Scores			Chi square values		df
		Poor	Average	Good	Calculated	Tabulated	
1)	Age in years						
	a) 18-22	09	13	00	0.72	5.99	2
	b) 23-27	10	20	00			
	c) 28-32	02	06	00			
	d)33and above	00	00	00			
2)	Religion						
	a) Hindu	17	31	00	1.19	5.99	2
	b) Muslim	04	06	00			
	c) Christian	00	02	00			
	d) Other	00	00	00			
3)	Mothers Education						
	a) Primary education	07	04	00	5.22	7.82	3
	b) Secondary education	10	15	00			
	c) Higher secondary education	04	13	00			
	d) Graduate and above	00	07	00			

4)	Occupation						
	a) House wife	17	28	00	7.31	7.82	3
	b) Labourer	02	00	00			
	c) Government Service	00	00	00			
	d) Private Service	01	10	00			
	e) Own business	01	01	00			
5)	Type of Family						
	a) Nuclear Family	09	16	00	0.19	5.99	2
	b) Joint Family	11	20	00			
	c)Extended Family	01	03	00			

Sr no	Variables	Scores			Chi square values		df
		Poor	Average	Good	Calculated	Tabulated	
6)	Previous information regarding antenatal exercise						
	Yes	00	08	00	4.97*	3.84	1
	No	21	31	00			
	If yes, source of information was						
	a) Family members	00	01	00			
	b) Friends and neighbours	00	00	00			
	c) Health care worker	00	02	00			
	d)social media (T.V. Radio, Newspaper, Internet, etc)	00	05	00			

Note: * Indicates Significance

Table 5: Indicates that,

- There was significant association between pre-test knowledge scores with selected socio-demographic variable like previous information regarding antenatal exercise [$\chi^2_{cal} = 4.97$*, $\chi^2_{tab} = 3.84$]. The calculated chi-square values was greater than tabulated value at 0.05 level of significance.
- While age in years, religion, mother's education, occupation, type of family, does not show any significant association.
- This indicates that there was significant association between pre-test knowledge scores with their selected socio-demographic variables at 0.05 level of significance.

DISCUSSION:

A pre-experimental, one group pre-test post-test research design was used for the present study, which consisted 60 subjects that were selected on the basis of the sampling criteria set for the study. Subjects were selected by using non probability, purposive sampling technique. The tool was developed into two section, Section A: Selected socio demographic variables, Section B: Structured knowledge questionnaires on knowledge regarding antenatal exercise.

Pre-test was conducted on 09/03/2022 and administered video assisted teaching programme on antenatal mothers on same day after pre-test. The post-test was conducted after 7 days that is on 8th day on 16/03/2022. In order to fulfil the objectives and test the hypotheses, the data was tabulated and analysed by using both descriptive and inferential statistics.

The knowledge results reveals that the calculated paired 't' value (t_{cal}=32.32) was greater than the tabulated value (t_{tab} =1.67). This indicates that the gain in knowledge score was statistically significant at $p < 0.05$ level. Therefore, the finding revealed that the video assisted teaching programme on antenatal exercise was effective in increasing the knowledge regarding antenatal exercise among antenatal mothers.

There was significant association between pre-test knowledge scores with their selected socio-demographic variables like previous information regarding antenatal exercise [$\chi^2_{cal} = 4.97$*, $\chi^2_{tab} = 3.84$]. The chi-square value was greater than tabulated value at 0.05 level of significance. This indicated that there was significant association between pre-test knowledge scores of antenatal mothers with their selected socio demographic variables at 0.05 level of significance.

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