Scholars Journal of Applied Medical Sciences (SJAMS) **ISSN 2320-6691 (Online)**
Sch. J. App. Med. Sci., 2015; 3(1E):348-352 **ISSN 2347-954X (Print)**

(An International Publisher for Academic and Scientific Resources)
www.saspublishers.com DOI: 10.36347/sjams.2015.v03i01.069

Research Article

Effectiveness of Structured Teaching Programme on Knowledge Regarding Pelvic Inflammatory Disease

Nirmala Neupane
School of Health and Allied Sciences, Pokhara University, Lekhnath-12, Kaski, Nepal

***Corresponding author**
Nirmala Neupane
Email: niru_kanchan@yahoo.com

Abstract: Pelvic inflammatory disease (PID) is one of the most serious infections of women today occurs in large number of women per year in developing countries. The study was conducted to find out the effectiveness of structured teaching programme on knowledge regarding pelvic inflammatory disease among women of reproductive age. The community based pre-experimental one group pretest posttest study design which was conducted among 60 women of reproductive age in urban community of Mangalore city, India. The pre-test level of knowledge showed that 61.7% subjects had poor, 38.3% subjects had average and none of them had good level of knowledge. Whereas in the post-test 86.7% subjects had good and 13.3% subjects had average and none of them had poor level of knowledge. The total mean percentage of pre-test was 32.6 with mean and SD 9.78 ± 3.97 and the total mean percentage of post-test 76.5 with mean and SD 22.95 ± 2.83. There was significant association between pre-test level of knowledge and type of the family and educational status of the women ($p<0.05$).The study concluded that structured teaching programme was effective in improving the knowledge of reproductive age group women regarding pelvic inflammatory disease.
Keywords: Effectiveness, structured teaching programme, pelvic inflammatory disease.

INTRODUCTION

Pelvic inflammatory disease (PID) is one of the most serious infections of women today. It is an inflammation and infection of the upper genital tract, involving the uterus, fallopian tubes, the ovaries, and the surrounding structures. It can cause infertility, ectopic pregnancy, and chronic pelvic pain [1].

Common symptoms of PID are bilateral lower abdominal pain and pelvic pain which is dull in nature, high temperature, headache and back pain, irregular and excessive vaginal bleeding, unusual or heavy vaginal discharge which becomes purulent, copious and foul smelling. In some women, associated urinary tract infection is present giving rise to increased frequency of micturation and dysuria, nausea and vomiting, Painful sexual intercourse, dehydration and dry tongue [2].

Sexually active women in their childbearing years are most at risk, and those under age 25 are more likely to develop PID than those older than 25. More sex partners a woman has, the greater her risk of developing PID [3].

It is estimated that more than 1 million women in India experience an episode of acute PID. More than 1, 00,000 women become infertile each year as a result of PID, and a large proportion of the ectopic pregnancies occurring every year are due to the consequences of PID. Annually, more than 150 women die from PID or its complications [4].

Prompt and appropriate treatment can help prevent complications of PID. Up to 10-15% of women with PID may become infertile, and if a woman has multiple episodes of PID, her chances of becoming infertile increase [5].

PID has a high morbidity; about 20% of affected women become infertile, 40% develop chronic pelvic pain, and 1% of those who conceive have an ectopic pregnancy[5]. The incidence of PID decreases with advancing age. A study shows that nearly 70% of women with PID were younger than 25 years of age, 33% experienced their first infection before age of 19, and 75% were nulliparous. The risk for development of acute PID in sexually active adolescence female patient was 1:8, whereas the risk was 1:80 for sexually active women 24 years of age or older [6].

There is strong correlation between exposure to sexually transmitted diseases and pelvic inflammatory disease. Approximately 85% cases are non iatrogenic infections occurring in sexually active women of reproductive age and the remaining 15% of infections occurred after procedures which break the cervical mucus barriers such as placement of an intra uterine device (IUD), endometrial biopsy, or uterine

curettage, which allows vaginal flora to infect the upper genital tract [7].

The objectives of study were to determine the pre-test level of knowledge regarding PID; to evaluate the effectiveness of structured teaching programme on knowledge regarding PID; and to find the association of the pre-test level of knowledge regarding PID among reproductive age group women with selected socio-demographic variables..

MATERIALS AND METHODS

This was the community based pre-experimental one group pre-test post-test research design which was conducted during October 2012-March 2013 in urban community of Mangalore, India. Purposive sampling technique was used to collect primary data. Sample size was 60 reproductive age group women. Face to face interview was conducted with respondents by using structured interview schedule which had two sections: socio-demographic characteristics and knowledge regarding pelvic inflammatory disease. Eight sub areas were determined to access the knowledge regarding PID: anatomy of reproductive system, introduction, causes, clinical features, diagnosis, treatments, complications and prevention of pelvic inflammatory disease. The total numbers of questions were 30. Each correct answer was given a score of one and wrong answer zero. Level of knowledge was accessed as good (21-30), average (11-20) and poor (0-10). Structured Teaching Programme (STP) was conducted after collection of pre-test information. STP included all eight above mentioned sub areas of PID. Post test information was collected on the eighth day of conduction of STP. Written permission to conduct the study was obtained from the district surgeon and superintendent of Mangalore. Purpose of the study was explained and written informed consent was obtained from each subject before conducting the interview. Care was taken to maintain the privacy and confidentiality. The obtained data have been analyzed according to the objective of the study by using descriptive statistics such as frequency, percentage, mean, standard deviation and inferential statistics such as paired "t" test and chi-square test.

RESULTS

Socio-demographic characteristics

Out of 60 reproductive age group women interviewed; majority of the subjects (43.3%) were in the age group of 26–35 years. Almost two-third of them (66.7%) were married. Six out of ten of the subjects (60%) belonged to joint family. Maximum proportion of the subjects (41.7%) belonged to Muslim religion. Majority of the subjects (31.7%) had high school education. Almost one-fourth of the subjects (25.0%) were homemakers. Majority of the subjects (46.7%) family income ranged between Rs 6001- 9000. Most of the subjects (86.7%) had not heard about PID. Among the subjects who had heard about PID; most of them (62.5%) got information from health professional (Table 1).

Level of knowledge on Pelvic Inflammatory Disease

In the pre-test most of the subjects (61.67%) had poor level of knowledge regarding pelvic inflammatory disease whereas in the post-test, most of the subjects (86.67%) had good level of knowledge regarding pelvic inflammatory disease (Table 2).

Difference between the pre-test and post-test level of knowledge

With regards to difference between pre-test and post-test level of knowledge; mean percentage of pre-test was 32.6 with mean and SD 9.78 ± 3.97, which was lower than the mean percentage of post-test 76.5 with mean and SD 22.95 ± 2.83. The calculated 't' value (t_{59} = 21.09) was greater than the table value (t_{59}=1.67) at 0.05 level of significance showed that there was significant difference between the pre-test and post- test level of knowledge. This showed that structured teaching programme was effective (Table 3).

Area-wise pre-test and post-test knowledge regarding PID

With regards to area-wise pre-test and post-test knowledge on PID; the highest knowledge score in both pre-test and post-test was observed in the area of anatomy and physiology of reproductive system where the pre-test mean percentage was 45.5 with mean and SD of 5.38 ± 0.76 and the post test mean percentage was 89.66 with mean and SD of 5.34 ± 0.76.

Similarly lowest knowledge score in both pre-test and post-test was observed in the area of diagnosis of pelvic inflammatory disease where pre-test mean percentage was 21.05 with mean and SD of 0.43± 0.59 and post test mean percentage was 60 with mean and SD of 1.2 ± 0.7.

The calculated 't' value in all areas was greater than the table value (t_{59}=1.67) at 0.05 level of significance. It implies that there was significant difference between pre-test and post-test knowledge scores in all eight areas. This also showed that structured teaching programme was effective in improving the knowledge among reproductive age women regarding pelvic inflammatory disease (Table 4).

Association between the pre-test level of knowledge with selected socio-demographic variables.

The study reveals that there was significant association between pre-test level of knowledge and selected socio-demographic variables. such as type of the family and educational status of the women ($p<0.05$). In the other demographic variables like age, marital status, religion, occupation, income of family and information regarding pelvic inflammatory disease

there is no significant association between them and the pre-test level of knowledge ($p>0.05$) (Table 5).

Table 1: Socio-demographic characteristics (n=60)

Variables	f	%
Age in years		
15 – 25	18	30.0
26 – 35	26	43.3
36 - 45	16	26.7
Marital Status		
Single	20	33.3
Married	40	66.7
Type of family		
Nuclear	36	60.0
Joint	24	40.0
Religion of women		
Hindu	20	33.3
Muslim	25	41.7
Christian	15	25.0
Educational status		
No formal schooling	1	0.7
Primary school	11	18.3
High school	19	31.7
PUC/diploma	13	21.7
Graduate	16	26.7
Occupation of women		
Home maker	15	25.0
Unskilled worker (coolie)	7	11.7
Skilled worker (tailor, typist)	15	25.0
Health professional	6	10.0
Professional	7	11.7
Others	10	16.6
Family income (Rs/month)		
<3000	6	10.0
3001-6000	7	11.7
6001-9000	28	46.7
≥9001	19	31.6
Heard about PID		
Yes	8	13.3
No	52	86.7
Source of Information(n=8)		
Mass media	3	37.5
Health professional	5	62.5

Table 2: Pre-test and post-test level of knowledge

Level of knowledge	Pre-test		Post-test	
	f	%	f	%
Poor	37	61.7	0	0.0
Average	23	38.3	8	13.3
Good	0	0.0	52	86.7

Table 3: Difference between the pre-test and post-test level of knowledge

Period of observation	Mean	SD(±)	Mean percentage	't' Value
Pre-test	9.78	3.97	32.6	*21.09
Post-test	22.95	2.83	76.5	
$t_{59} = 1.67$,	$p<0.05$	*significant		

Table 4: Area-wise Mean, Mean percentage, SD and 't' value showing the difference between the mean pre-test and post-test level of knowledge

Area wise Knowledge	Max Score	Pre-test		Post –test		Mean Difference	't' value
		Mean SD (±)	Mean %	Mean SD (±)	Mean %		
Anatomy and physiology	6	2.73 ±1.49	45.5	5.38 ±0.76	89.66	2.65	*14.2
Introduction of PID	3	1.16 ±0.97	38.66	2.46 ±0.79	82.0	1.3	*11.66
Causes of PID	4	1.25 ±0.91	31.25	2.93 ±0.89	73.25	1.68	*12.21
Clinical features	6	1.83 ±1.19	30.5	4.13 ±1.38	68.3	2.3	*8.05
Diagnosis of PID	2	0.43 ±0.59	21.05	1.2 ±0.7	60.0	0.77	*10.0
Treatment of PID	4	1.05 ±0.98	26.25	2.96 ±0.86	74.0	1.91	*14.5
Complications	2	0.53 ±0.67	26.5	1.57 ±0.62	78.5	1.04	*12.22
Prevention	3	0.78 ±0.84	26.0	2.36 ±0.6	78.66	1.58	*14.81

Table 5: Association of pre-test level of knowledge with selected socio-demographic variables.

Variables	Total score		χ^2 value	Level of significance
	<Median (10)	≥Median (10)		
Age				
≤ 35years	26 (70.3)	11 (29.7)	0.44	p > 0.05 NS
> 35years	18 (78.3)	5 (21.7)		
Marital status				
Single	11 (29.7)	26 (70.3)	0.55	p > 0.05 NS
Married	9 (39.1)	14 (60.9)		
Type of family				
Joint	16 (43.2)	21 (56.8)	11.27	p < 0.05 *S
Nuclear	20 (86.9)	3 (13.1)		
Religion				
Muslim	18 (48.6)	19 (51.4)	1.92	p > 0.05 NS
Others	7 (30.4)	16 (69.6)		
Education				
High school and below	26 (70.3)	11 (29.7)	13.37	p < 0.05*S
Above high school	5 (21.7)	18 (78.3)		
Occupation				
Home maker	11 (29.7)	26 (70.3)	1.14	p > 0.05 NS
Others	4 (17.4)	19 (82.6)		
Family income Rs/months				
≤6000	9 (24.3)	28 (75.7)	0.39	p > 0.05 NS
>6000	4 (17.4)	19 (82.6)		
Heard about PID				
Yes	3 (8.1)	34 (91.9)	2.26	p > 0.05 NS
No	5 (21.7)	18 (78.3)		

Figures showed in parenthesis indicate percentage

DISCUSSION

In the present study, the pre-test level of knowledge showed that 61.7% subjects had poor level of knowledge, 38.3% subjects had average level of knowledge and none of them had good level of knowledge regarding pelvic inflammatory disease. Whereas in the post-test 86.7% subjects had good level of knowledge and 13.3% subjects had average level of knowledge and none of them had poor level of knowledge regarding pelvic inflammatory disease. The

findings of this study were consistent with another study which was conducted to find out the effectiveness of self instructional module on pelvic inflammatory disease among adolescent girls in Mangalore, India. The sample consisted of 50 adolescent girls in selected rural high school. In pre-test 80% had average knowledge, 18% had poor knowledge and only 2% had good knowledge whereas in post test 90% had good knowledge and 10% had average knowledge regarding PID [8].

The present study showed the total mean percentage of pre-test was 32.6 with mean and SD 9.78 ± 3.97 and the total mean percentage of post-test 76.5 with mean and SD 22.95 ± 2.83. The calculated 't' value (t59 = 21.09) was greater than the table value (t59=1.67) at 0.05 level of significance showed that there was significant difference between the pre-test and post- test level of knowledge. The findings of this study consistent with another study conducted in Bangalore to find out the effectiveness of structured teaching programme on knowledge regarding pelvic inflammatory disease among 50 postnatal mothers in selected hospitals. The total mean percentage of pretest knowledge score was 30% where as in the post test mean score was 88%. The paired "t" value (10.46, $p<0.05$) showed that there was significant difference between pretest and post test level of knowledge score. The study concluded that structured teaching programme was effective to improve the knowledge of postnatal mothers regarding pelvic inflammatory disease [9].

The present study revealed that there was significant association between pre-test level of knowledge and selected socio-demographic variables. such as type of the family and educational status of the women ($p<0.05$). Various other studies also reported significant association between knowledge on PID with educational status of women [8-10].

CONCLUSION

The study concluded that structured teaching programme was effective to increase the knowledge regarding pelvic inflammatory disease among women of reproductive age. Thus it is recommended to conduct such teaching programme in large scale to increase the women's knowledge regarding pelvic inflammatory disease.

REFERENCES

1. Zita M; Nine common Gynaecological problem every woman should know about. Available from http://healthmad.com
2. Dutta DC; Text Book of Gynaecology. 6th edition, New Central Book Agency Publications, Kolkata, 2008.
3. Padubidri VG, Daftary NS; Shaw's Text Book of Gynaecology. Reed Elsevier India Pvt. Ltd, 2004.
4. Murthy NS; Reproductive health status of Indian women: A Scenario. Obstetrics and Gynecology Today, 2002; 7: 432-440.
5. Bhargava VL; Textbook of Gynaecology. Ane Books Pvt. Ltd., 1993.
6. Berek JJ; Berek and Novar's Gynaecology: Genitourinary infections and sexually transmitted diseases. 4th edition, Lippincott William and Welkin, 2006.
7. The essentials on pelvic inflammatory disease. Available from http://www.homeopathic world.com
8. Priya JA; Effectiveness of self instructional module on pelvic inflammatory disease among adolescent girls in selected rural high schools at Mangalore. Unpublished thesis submitted to RGUHS, Rajiv Gandhi University of Health Sciences, 2010.
9. Manjuraj MR; A study to evaluate the effectiveness of structured teaching programme on knowledge regarding Prevention of pelvic inflammatory disease among postnatal mothers in selected hospitals at Bangalore. Unpublished dissertation submitted to RGUHS, Rajiv Gandhi University of Health Sciences, 2010.
10. Mary PM; Effectiveness of planned teaching programme regarding prevention of pregnancy induced hypertension among primi gravid antenatal mothers in selected hospitals, Mangalore. Unpublished dissertation submitted to RGUHS. Rajiv Gandhi University of Health Sciences, 2005.