A Study on Knowledge and Risk Factors Related to Pelvic Inflammatory Disease among Women in Selected Rural Community Area of Dehradun, Uttarakhand

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Abstract: *Pelvic inflammatory disease is the infectious disease of the female reproductive organ. Mostly caused by gonorrhoea and Chlamydia bacteria. Chronic pelvic inflammatory disease is the leading cause of infertility, tubo-ovarian abscess, ectopic pregnancy and cervical cancer among women. Self physical assessment & screening of the reproductive part can prevent the risk for occurrence of pelvic inflammatory disease. Aim: To assess the knowledge and risk factors related to pelvic inflammatory disease among women. Methodology: Quantitative research approach with descriptive research design was adopted for the study. Total 110 women age group between 20-45 years were selected by using purposive sampling technique. Data was collected at Community Health Centre, Doiwala, by administered structured knowledge questionnaire and risk factors. Descriptive statistics was used to analyse the research data. Results: The result shows that 70 women had poor knowledge, 35 women had average knowledge, whereas only 5 of them had good knowledge regarding pelvic inflammatory disease. According to knowledge domain women had good knowledge about sign and symptoms of PID. The significant association was found between levels of knowledge with selected demographic variables. Conclusion: Women had poor knowledge regarding PID. So that is need of awareness programme to improve knowledge of women.*

Keywords: Pelvic inflammatory disease, Women, Knowledge, Risk factors

1. Introduction

Pelvic inflammatory disease means an infection of female reproductive organ. Reproduction is a process that introduces a new life to this world but the reproductive health negligence may cause severe results.[1]The pelvic infection causes rupturing of inner and outer surrounding layers of the organs and formed scars on the surface of reproductive organs if the genital infection is very severe it will damage the female reproductive organs and developed complications.[2]

Pelvic inflammatory disease may be some time indicative or non-indicative infection. The most etiological agents of PID are bacterial and microbial and the most clinical cases of the PID are pathogenic.[3] The other causing factors of PID are surgical procedure, recurrent pelvic examination, long time use of intra uterine devices, unproductive sexual contacts with more than one person, recurrent miscarriage and abortion.[4]The signs and symptoms of pelvic inflammatory disease are fever, chills, fatigue, lower abdomen pain, pelvis pain, sexual intercourse pain, itching in genital area etc.[5]

The risk factors associated with pelvic inflammatory disease are multiple physical relationship, past history regarding gonorrhoea, chlamydia and bacterial vaginosis.[6]Pelvic infection complications can develop the infertility, tubo-ovarian abscess, ectopic pregnancy, persistent pelvic pain and tubal occlusion.[7] The confirmatory diagnose of pelvic inflammatory disease can be done with the help of clinical findings such as the screening of physical and reproductive organ, culture test, pap smear test and blood sampling.[8]

As effective prevention of the pelvic inflammatory disease are according to the episode and stages (primary,secondary, tertiary) of infection. Proper treatments related to any reproductive disease that can helps to reduce the risk and complication.[9]Major points that always keep in mind to prevent PID are maintain genital area hygiene, use of condoms, safe sexual practices early treatment and diagnosis.[10]

2. Methods

A quantitative research approach with descriptive design was adopted for determine knowledge regarding PID among married women (Modified) The research study was conducted in Community Health Centre in Doiwala Block Dehradun. A total of 110 married women between age group 20-45 years were selected by purposive sampling technique and the duration of data collection is one month.

Ethical Committee permission was obtained from the concerned institutional authorities. Written consent was obtained from study participants

3. Result

Table 1: Demographic characteristics of women (n = 110)

S. No.	Demographic Characteristics	Frequency (f)	Percentage (%)
1	**Age of participant (in year)**		
	a) 20 - 30	73	66.4
	b) > 30 – 40	24	21.8
	c) > 40 – 50	13	11.8

2	**Age at marriage (in year)**		
	a) 20 - 25	106	96.4
	b) > 25 – 30	4	3.6
3	**Educational Level**		
	a) No formal Education	21	19.1
	b) Secondary education	37	33.6
	c) Senior Secondary education	22	20
	d) Graduate and above	30	27.3
4	**Occupation**		
	a) Home maker	92	83.6
	b) Government Job	4	3.6
	c) Private Job	14	12.8
5	**Monthly family income (Rs)**		
	a) 5000 – 10,000	54	49.1
	b) >10,000 – 20,000	35	31.8
	c) >20,000 – 30,000	14	12.7
	d) >30,000 – 40,000	5	4.5
	e) >40,000 – 1.5 Lakh	2	1.8
6	**Religion**		
	a) Hindu	82	74.5
	b) Muslim	24	21.8
	c) Sikh	4	3.6
7	**Family Type**		
	a) Nuclear family	45	40.9
	b) Joint family	65	59.1
8	**Aware about Pelvic inflammatory disease**		
	a) Yes	51	46.4
	b) No	59	53.6
	Source of information (n = 51)		
	i. Friends	9	17.7
	ii. Health professional	19	37.2
	iii. Family member	16	31.4
	iv. Mass media	7	13.7
9	**Diagnosis of PID**		
	a) Yes	19	17.2
	b) No	91	82.8
	Length of illness (n = 19)		
	i. Below 3 years	14	73.7
	ii. Above 3 - 6	2	10.5
	iii. Above 6 – 9	1	5.3
	iv. Above 9 -12	2	10.5
10	**Had children**		
	a) Yes	83	75.4
	b) No	27	24.6
	Mode of delivery (n = 83)		
	i. Vaginal delivery	67	80.8
	ii. Caesarean section delivery	16	19.2
11	**Place of delivery (n = 83)**		
	a) Private hospital	25	30.1
	b) Government hospital	43	51.8
	c) Home delivery	15	18.1
12	**Number of children (n = 83)**		
	a) 1 – 2	63	75.9
	b) 3 – 4	18	21.7
	c) 5 – 6	2	2.4

Table No.1 Shows that more than half women (66.4%) were between age group 20 – 30 years, maximum of them (96.4%) were age group between 20 – 25 years at the time of their marriage, one third of them (33.6%) had primary education and majority (83.6%) of them were home makers, Families of less than half women earned between Rs 5000-10,000/- monthly. 74.5% women were Hindu, half of the above (59.1%) were from joint family. More than half (53.6%) women had no idea about PID and its prevention.

Only 17.2% women had PID and among them 73.7% women had PID from last three years. 75.4% women had child (mostly 1-2) through vaginal delivery (80.8%) in government hospital (51.8%).
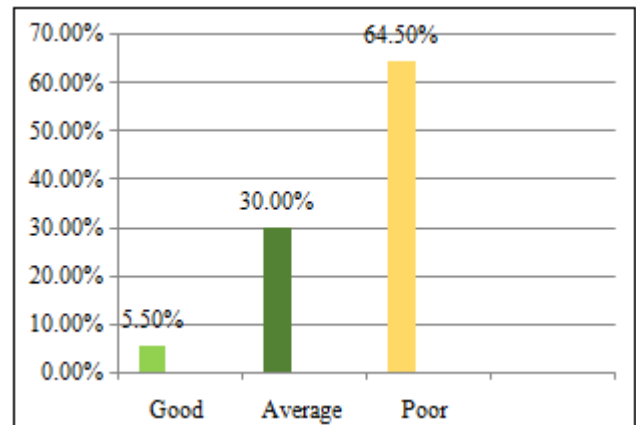

Figure 1: Levels of knowledge regarding pelvic inflammatory disease (n=110)

Data Presented in Fig No. 1 illustrate that majority of women (64.5%) had poor knowledge, 30% women had average knowledge, whereas only 5.5% of them had good knowledge regarding pelvic inflammatory disease.

Table 2: Risk factors related to Pelvic inflammation disease (n=110)

Rank	Risk factors	Frequency	Percentage
1	Not regular changing of sanitary pads/ cloth twice a day during menstruation time	102	92.72
2	No wash perineal cleaning with water after each void/ urination	98	89.09
3	Heavy bleeding during menstruation	98	89.09
4	No changing of under garment daily	94	85.45
5	No perineal cleaning after sexual contact	93	84.54
6	Irregular monthly menstruation	90	81.81
7	Not using safe sex practices	73	66.36
8	History of abnormal vaginal discharge	20	18.18
9	History of abortion	19	17.27
10	History of pelvic examination	17	15.45
11	History of any reproductive illness	16	14.54
12	History of pregnancy without gap	12	10.90
13	Family history of pelvic inflammatory disease	12	10.90
14	Use of chemical products for intimate hygiene	11	10
15	Recently inserted the intra uterine devices (IUD's)	05	4.54
16	Insertion of copper-T more than 5 year	05	4.54
17	Previous reported cases to doctor for STD	03	2.72

In context of association between levels of knowledge and demographic variables of the participants. Statistical significant association was found only with age at marriage

(8.27), education level (18.79), and religion (9.75), awareness about pelvic inflammatory disease (8.66).

4. Discussion

Present research study finding was that more than half of the (66.4%) women were age group between 20 – 30 years. the present finding were supported with Lata et al, (2019) in Haryana , which shows that 51.5% participants were age group between 20 – 30 years of age group.[20]

The research analysis shows that more than half (53.6%) women were not heard about pelvic inflammatory disease and their prevention, result of the study consistent with the descriptive survey study in Nigeria country. It was found in similar study by Njoku et al,(2021) that 52.3% women had not ever heard and information about pelvic inflammatory disease.[34]

The analysis findings was that only one third (33.6%) of women were primary educated, it was supported by a cross sectional descriptive study by Rani et al,(2019) in Moradabad, and result show that only (30%) of participants ware Primary education.[30]

Result findings shows that the half of the above (59.1%) women were belongs to Joint family,and a pre experimental comparatively study shows that by Neupane (2015), in Mangalore, India. study show that (60%) belonged to joint family.[19]

Outcome of the present research illustrate that mean knowledge value of the participants was 11.30 ± 3.68. This research finding was supported by a pre experimental study conducted by Neupane N (2015),in shows that the overall mean knowledge value of the participants was 9.78 ± 3.97.[19]

Conclusion of the current research illustrate that majority of (64.5%) women have poor knowledge, (30%) women had average knowledge, whereas only (5.5%) of them had good knowledge on Pelvic inflammatory illness. The result of the research were consistent with a community based Quantitative descriptive survey by Rani R. et al. The research finding highlight that 36% women had Inadequate Knowledge about PID , 44% women have moderately adequate Knowledge, whereas only 20% women had adequate Knowledge on Pelvic inflammatory disease.[30]

The study revealed that eighteen percentage women were had history of abnormal vaginal discharge, result of the study were consistent according to Panday (2014), in Kathmandu that thirty percentage participants had problems of vaginal discharge.[27]

Present study shows that higher risks was of (66.37%) women were not practice safe sex, this finding was supported by descriptive cross-sectional study conducted by Oseni and Ahmad (2016) at Irrua, Nigeria, in that found that most of (72.5%) were not practicing safe sex practices.[23]

5. Limitations

Setting of the study was changed from rural community area to Community Health Centre due to COVID - 19

6. Recommendations

Related to future study
- The research can be doing in large sample scale
- The researcher can do experimental and interventional screening based study
- The researchers can be added more variables or fixed on one variables.
- A study can be conducted among adolescent girls for the same.
- Same study can be conducted for urban population.

7. Conclusion

Based on the findings of present research, it was concluded that the knowledge of women regarding pelvic inflammatory disease was poor. So, adequate knowledge related to PID can help in reducing reproductive health issues.

8. Summary

This part based on the discussion, summary of the research, major conclusion, and implication in nursing areas limitations, recommendations & conclusion.

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