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Knowledge regarding leucorrhoea and its associated factors among married women of reproductive age group in selected rural areas of Sikkim

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Abstract

Leucorrhoea is very common problem among women of reproductive age. Only few women have knowledge about this condition and take preventive measures to manage it. The purpose of this study was to assess the knowledge and find associated factors. Descriptive research design was used and it was conducted among married women from age 18-49 years of Pakyong, East Sikkim. A structured knowledge questionnaire was administered to 100 samples. The study revealed that only 5% samples had good level of knowledge, 57% had average level of knowledge and 38% had poor level of knowledge. Also, there was association of knowledge on leucorrhoea with age, occupation and age at menarche. The study shows that there is a need to improve knowledge regarding leucorrhoea in women of reproductive age group. The health care professional should take initiative and improve knowledge of community people through various activities.

Keywords: Sexually transmitted infection, knowledge, leucorrhoea; associated factors

1. Introduction

In the 21st century, there is still an unacceptably high global incidence of sexually transmitted infections. According to World Health Organisation (WHO), more than 1 million sexually transmitted infection is acquired everyday worldwide [1]. Each year 499 million cases of sexually transmitted infections are acquired by people aged 15-49, of which 80% cases occur in developing countries and about 79 million cases occur in India annually [2].

The complaint of vaginal discharge is very common among women of reproductive age group, particularly in South East Asia where about a quarter of all adult women repeat this complaint. The World Health Organization has recommended syndromic management, in which women complaining of discharge are treated for some or all of the five common reproductive tract infections: chlamydia trachomatis infection, gonorrhoea, and trichomoniasis, which result from disturbance in normal bacterial flora of vagina [3].

Leucorrhoea is defined as white to yellow viscid vaginal discharge, which may be symptom of the disorder either in the reproductive organ or elsewhere in the body [4].

An increase in normal vaginal secretion develops physiologically at puberty, during pregnancy, at ovulation, and in some women, during the premenstrual phase of the menstrual cycle. An increase in secretion during other phases may indicate certain condition of the reproductive organ which may require medical help. It is the responsibility of the health care providers to create awareness regarding leucorrhoea among teenage girls and reproductive women in order to identify the problem in early or initial stage [5].

A cross sectional study was conducted by Damaru Prasad Paneru on prevalence and factors associated with reproductive tract infections among married women of reproductive age among 282 women attending selected Primary Health Care Centres and Health Posts of Kaski district, Nepal. The study finding revealed that prevalence of RTI symptoms were 112 (78.9%), backache (71%), low abdominal pain (67%), watery vaginal discharge (56%), genital itching (51%), burning urination (44%) and curdy discharge per vagina (26%). The study concluded that burden of the RTIs among women is unexpectedly high; indicating the women's vulnerability to reproductive morbidities, limited service accessibility and their

reproductive fates, reflecting the needs of information and empowerment [6].

A study was conducted by Koteswari M, Rao Nageswara K, Renuker I.V, Devi Padmavathi C on PAP Smear Examination in women, complaining of leucorrhoea among 115 women attending gynaecology outpatient tertiary care hospital at Guntur Medical College, Andhra Pradesh, India. The study revealed that out of 115 women, 107 cases were smears positive which indicated the presence of cervical squamous intraepithelial lesions. Early detection of squamous intraepithelial lesions by "Pap Smear" reduces the mortality and morbidity of women. Also, in cases of leucorrhoea, Pap smear helps in identifying, the specific pathogen [7].

2. Material and Methods

2.1. Research approach: Quantitative survey approach.

2.2. Research design: Non-experimental descriptive research design.

2.3. Setting of the study: The setting of the study was Pakyong, East Sikkim.

2.4. Population: Married women of reproductive age group of Pakyong, East Sikkim.

2.5. Sampling technique: Non probability convenient

sampling technique.

- **Sample:** 100 married women of reproductive age group
- **Sample size:** 100

2.6. Sampling criteria

Inclusion criteria

- Married women of reproductive age group who are available at the time of data collection.
- Married women who are willing to give consent.
- Married women who can understand English and Nepali.

Exclusion criteria

- Unmarried women.

2.7 Pilot study

The pilot study was conducted among 10 married women of reproductive age group at Bojoghari, East Sikkim after obtaining consent from them.

2.8 Statistics

The study is analyzed on the basis of the objectives and by using descriptive and inferential statistics

3. Results and Discussions

Section I: Findings related to frequency and Percentage distribution of demographic variables.

Table 1: Frequency and percentage distribution of demographic variables

| Demographic variables | Frequency | Percentage (%) |
|------------------------------|-----------|----------------|
| N=100 | | |
| Age in years | | |
| below 21yrs | 1 | 1% |
| 21-30yrs | 43 | 43% |
| 31-40yrs | 43 | 43% |
| 41-49yrs | 13 | 13% |
| Education | | |
| No formal education | 14 | 14% |
| Primary level | 20 | 20% |
| Secondary level | 39 | 39% |
| Senior secondary level | 15 | 15% |
| Graduation | 10 | 10% |
| Post-graduation | 2 | 2% |
| Occupation | | |
| Govt. employee | 8 | 8% |
| Private employee | 7 | 7% |
| Self employed | 15 | 15% |
| Housewife | 70 | 70% |
| Type of family | | |
| Nuclear | 79 | 79% |
| Joint | 21 | 21% |
| Extended | 0 | 0% |
| Family monthly income | | |
| 4999 and below | 11 | 11% |
| 5000-19,999 | 64 | 64% |
| 20,000-39,999 | 20 | 20% |
| 40,000-79,999 | 3 | 3% |
| 80,000-99,999 | 1 | 1% |
| 1 Lakh and more | 1 | 1% |
| Age of menarche | | |
| <13 | 29 | 29% |
| 13-15 | 61 | 61% |
| 16-18 | 10 | 10% |
| Obstetric history | | |

| | | |
|----------------------------|----|-----|
| Current Pregnancy | | |
| Yes | 7 | 7% |
| No | 93 | 93% |
| History of abortion | | |
| Yes | 14 | 14% |
| No | 86 | 86% |

The data in the Table 1 shows that only 1% of the total sample belongs to age <21yrs, 43% in the age group 21-30 years, 43% in age group 31-40 years, 13% belong to 41-49yrs.

The data also highlighted in terms of highest degree of education achieved, majority i.e. 39% has attained secondary level education, 20% had attained primary level of education, 15% senior secondary level, 14% had no formal education, 10% are graduates and only 2% are post graduate.

The data also revealed that majority i.e., 70% were housewives, 15% were self-employed, 7% are private employee and 8% were government employee.

Among 100 samples 79% belongs to nuclear family and 21% belongs to joint family. Majority i.e. 64% of the participant's family monthly income was from Rs 5,000 to 19,999, 20% was from range 20,000 to 39,999, 11% was >4,999, 3% have range from 40,000 to 79,999 and 1% has more than 1 lakh.

Majority 61% had attained menarche at the age of 13-15years, 29% has attained before 13yrs of age and 10% has attained at the age of 16-18yrs.

Majority i.e., 93% were not currently pregnant, whereas 75 were currently pregnant and 86% had no history of abortion and 14% had history of abortion.

Section II: findings related to frequency and Percentage distribution of knowledge regarding leucorrhoea

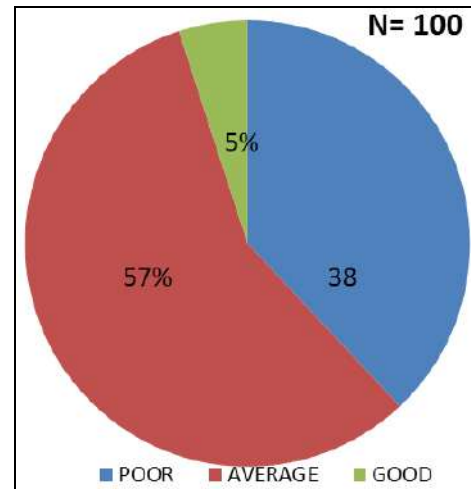


Fig 1: Knowledge score regarding leucorrhoea

The data in the Fig 1 reveals that the majority 57% of the participants had average knowledge, 38% had poor knowledge and only 5% had good knowledge regarding leucorrhoea.

Table 2: Finding related to mean, median and standard deviation of knowledge score

| Variables | Max. Score | Obtained Score | Mean value | Mean percentage | Median | SD |
|-----------|------------|----------------|----------------------------|--|--------|--|
| Knowledge | 2800 | 1087 | Obtained Value ÷ N = 10.87 | Obt. Score ÷ Max. Score × 100 = 38.82% | 10 | $SD = \sqrt{\sum (x - \bar{x})^2 \div N} = 3.28$ |

Data in the Table 2 shows that total knowledge score is 2800 and obtained score is 1087. The mean score obtained is 10.87 and the median is 10 for knowledge. The Standard

Deviation (SD) for knowledge score is 3.28 and mean percentage is 38.82% of obtained score.

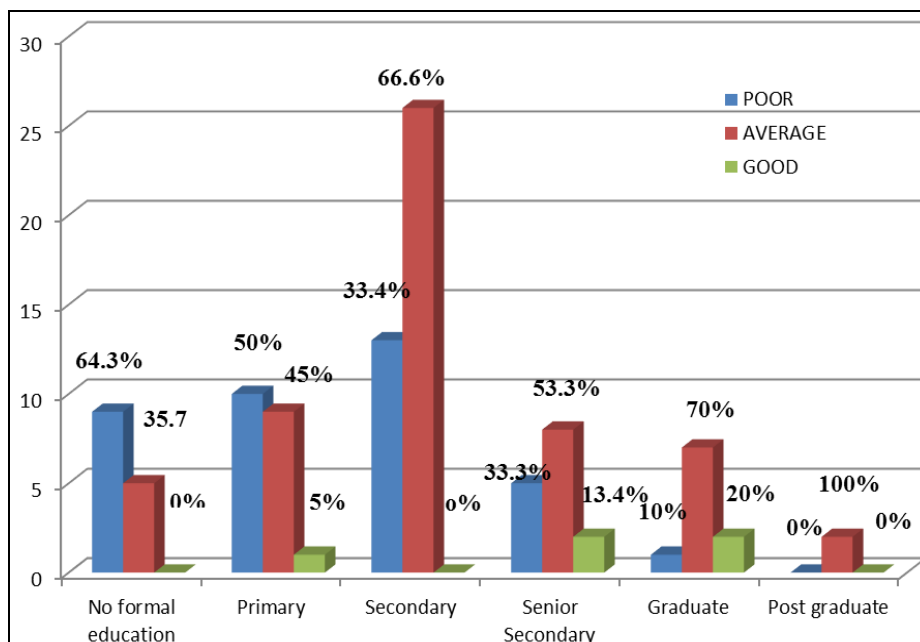


Fig 2: Knowledge score in terms of level of education

The data on the figure 2 reveals that among 14 sample who had no formal education, 64.3% had poor knowledge, 35.7% had average knowledge. Among 20 sample who had attended primary level education, 50% had poor knowledge, 45% had average knowledge and 5% of them had good knowledge. Among 39 sample who had attended secondary level education 33.4% had poor knowledge, 66.65% had average knowledge and 15 sample had attended senior secondary level education where 33.3% had poor knowledge, 53.3% had average knowledge and 13% had good knowledge among 10 graduate sample 105 had poor

knowledge, 70% had average knowledge and 20% had good knowledge and 100% of post graduate had average knowledge.

Above data interprets that there was good knowledge among 20% of graduate followed by 13.4% who had attended senior secondary level of education and 5% who had attended primary level of education.

Section 3: findings related to frequency and percentage distribution of associated factors of leucorrhoea.

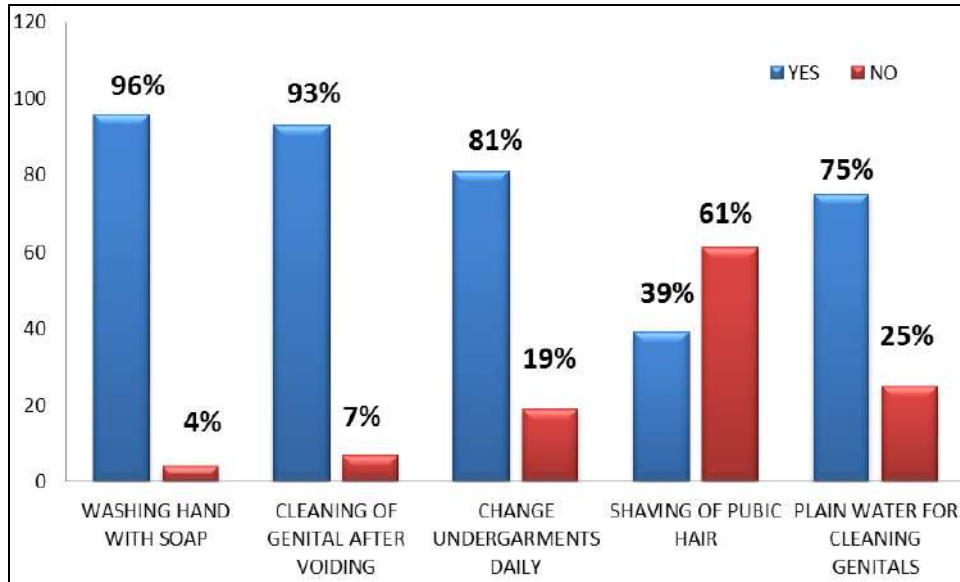


Fig 3: Percentage distribution of personal hygiene

In the Fig 3 out of 100 samples 96% washed their hand with soap after voiding, 93% cleaned their genital after voiding, 81% changed their undergarments daily, 61% did not shave

their pubic hair and 75% use plain water for cleaning genitals.

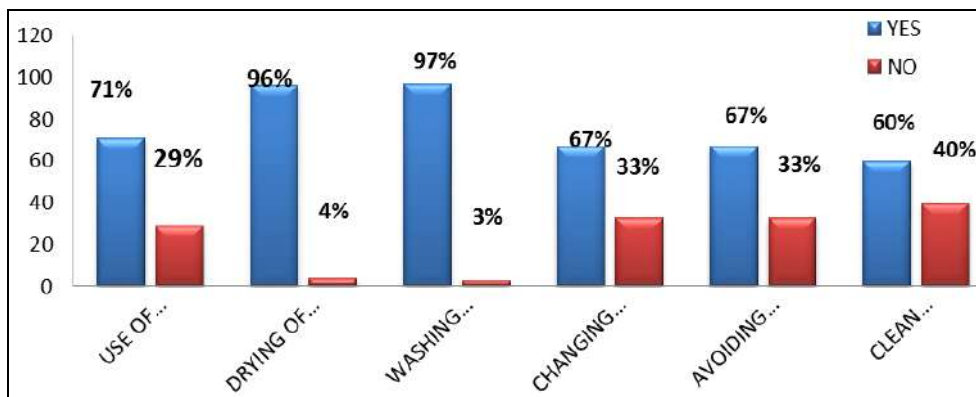


Fig 4: Percentage distribution of personal hygiene

Fig 4 show that out of 100 samples 71% use sanitary pad, 96% dry their undergarment in sunlight, 97% wash hand after changing pad, 67% change their pad within 6 hour, 67% avoid sexual relationship with their husband during menstruation and 60% use clean water for cleaning their genital during menstruation.

About 29% of the samples use piece of cloth, sanitary pad with cloth instead of only sanitary pad. 4% of the samples dried their undergarment in bathroom. 40% of the samples used antiseptic solution such as Dettol, savlon and soap for washing their genital during menstruation.

Table 3: Frequency and percentage distribution of associated factors.

| N= 100 | | | |
|--------------------------------------|--------------------------|--------------|----------------|
| Sl. No | Area | Frequency(f) | Percentage (%) |
| Use of Contraception | | | |
| 1. | Oral contraceptive pills | 20 | 20% |
| 2. | Intra Uterine Device | 8 | 8% |
| 3. | Condom | 15 | 15% |
| 4. | Tubectomy | 12 | 12% |
| 5. | Vasectomy | 0 | 0% |
| 6. | Implants | 0 | 0% |
| 7. | Injectables | 37 | 37% |
| 8. | Abstinence | 8 | 8% |
| Parity: Number of pregnancies | | | |
| 1. | 0 | 0 | 0% |
| 2. | 1-2 | 74 | 74% |
| 3. | 3-5 | 25 | 25% |
| 4. | 6-8 | 1 | 1% |
| Mode of delivery | | | |
| 1. | Normal Vaginal Delivery | 81 | 81% |
| 2. | Caesarean Section | 19 | 19% |
| Substance Use | | | |
| 1. | No | 48 | 48% |
| 2. | Yes | 52 | 52% |
| | Alcohol | 40 | 40% |
| | Smoking | 6 | 6% |
| | Tobacco | 5 | 5% |
| | Others | 1 | 1% |
| Stress | | | |
| 1. | Yes | 16 | 16% |
| 2. | No | 84 | 84% |

In the table 4 out of 100 sample majority of sample 37% uses injectables as method of contraception. 74% of the sample had parity 1-2, 81% of the samples delivered

through normal vaginal delivery, 52% were abusing substance like alcohol, tobacco and smoking and 84% did not have any kind of stress.

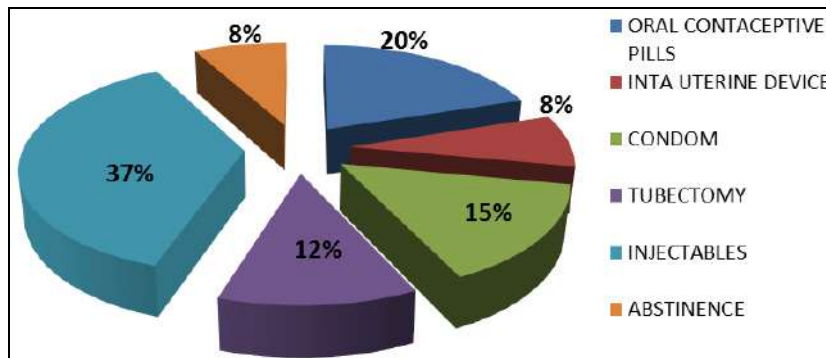


Fig 5: Percentage distribution of use of contraceptives

Fig 5 shows that majority of sample uses injectables (37%), oral contraceptive pills (20%), condom (15%), intra uterine device (8%), and abstinence (8%) as a method of

contraception. Among 100 samples none of the women’s husband had vasectomy whereas 8% had tubectomy as permanent method of contraception.

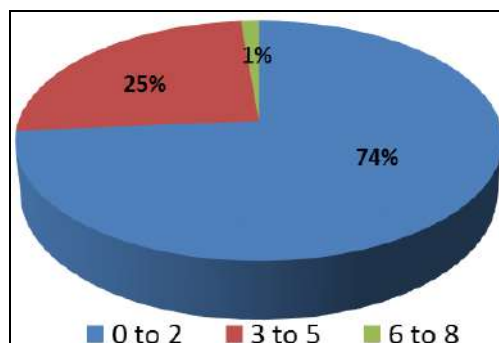


Fig 6: Percentage distribution on Parity of married women

Data in Fig 6 reveals that 100 samples were multigravida out of which 7 samples were currently pregnant. Majority of the samples i.e. 74% of the samples had parity from 0 to 2,

25% of the samples had parity from 3 to 5 and only 1% had parity from 6 to 8.

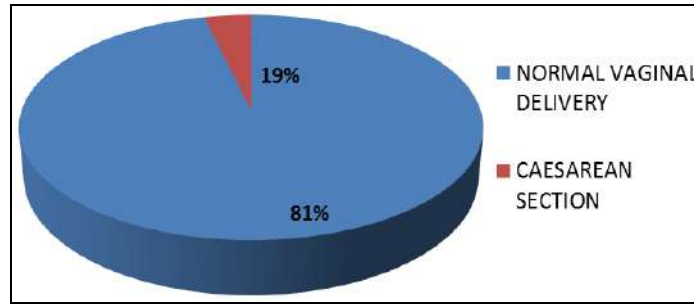


Fig 7: Percentage distribution on the mode of delivery

The data in Fig 7 shows that among all multigravida women 81% of the samples delivered their youngest child through

normal vaginal delivery whereas only 19% of the samples delivered their youngest child through caesarean section.

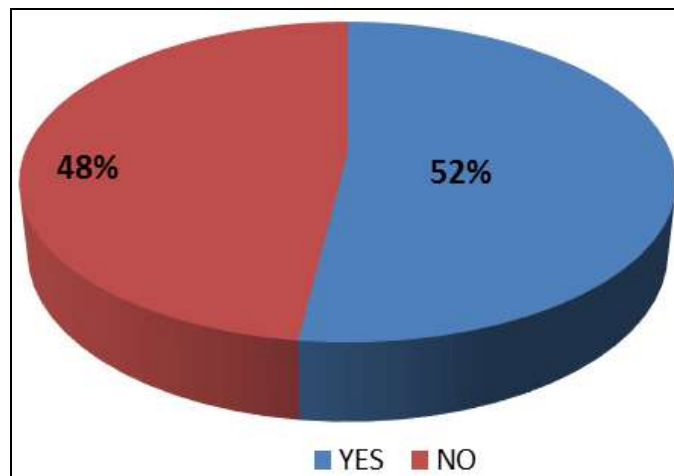


Fig 8: Percentage distribution on substance use

Data in Fig 8 reveals that 52% of samples were addictive to substance like alcohol (40%), smoking (6%), tobacco (5%)

and others (1%) whereas 48% did not use any kind of substance.

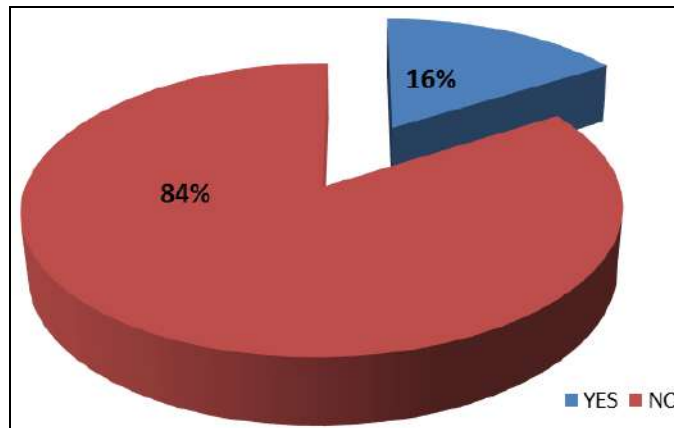


Fig 9: Percentage distribution on stress.

Fig 9 shows that 84% of the samples did not have any kind of stress in previous 3 months and 16% of the samples had stress related to children's studies (8%), family problem (5%) and family income (3%).

Section IV: findings related to association between knowledge and selected demographic variables.

Table 4: Association between knowledge with demographic variables

N=100

| Sl. No | Demographic variables | Median | | df | X ² | Table value | Remarks |
|--------|--------------------------------------|--------|-----|----|----------------|-------------|-----------------|
| | | <10 | ≥10 | | | | |
| 1. | Age | | | | | | |
| | <21yrs | 24 | 20 | | | | |
| | 21-30yrs | 17 | 25 | 2 | 7.18 | 5.99 | Significant |
| | 31 and above | 2 | 12 | | | | |
| 2. | Education | | | | | | |
| | Primary level and below | 25 | 9 | | | | |
| | Secondary and senior secondary level | 16 | 38 | 2 | 20.22 | 5.99 | Significant |
| | Graduation and above | 2 | 10 | | | | |
| 3. | Occupation | | | | | | |
| | Govt. Employee | 1 | 7 | | | | |
| | Private employee | 2 | 5 | 3 | 19.56 | 7.82 | Significant |
| | Self employed | 13 | 2 | | | | |
| | Housewife | 27 | 43 | | | | |
| 4. | Family type | | | | | | |
| | Nuclear | 32 | 47 | 1 | 0.93 | 3.84 | Non-significant |
| | Joint | 11 | 10 | | | | |
| 5. | Family monthly income | | | | | | |
| | 25,000 and below | 41 | 44 | 1 | 6.31 | 3.8 | Significant |
| | >25,000 | 2 | 13 | | | | |
| 6. | Age of menarche | | | | | | |
| | <13yrs | 20 | 9 | | | | |
| | 13-15yrs | 21 | 40 | 2 | 11.25 | 5.99 | Significant |
| | 16-18yrs | 2 | 8 | | | | |
| 7. | Obstetrical history | | | | | | |
| | Current pregnancy | | | | | | |
| | - Yes | 2 | 5 | 1 | 1.02 | 3.84 | Non-significant |
| | - No | 41 | 52 | | | | |
| | History of abortion | | | | | | |
| | -Yes | 7 | 7 | 1 | 0.3 | 3.84 | Non-significant |
| | -No | 36 | 50 | | | | |

Data presented in Table 5 reveals that the obtained chi square value for age (7.18) at df 2, occupation (19.56) at df 3 and age of menarche (11.25) at df 2 was found statistically significant at 0.05 level of significance, which shows that these variables influence knowledge regarding leucorrhoea among married women of reproductive age group of rural area with these variables.

Hence the research hypothesis is accepted which shows that there is an association between knowledge with demographic variables at 0.05 level of significance.

Discussion

- The finding of the present study reveals that 5% of participants were having good knowledge, 57% were having average knowledge and 38% were having poor knowledge which is supported by a study conducted by Mamta Choudhary among 250 females residing in model town, Ludhiana, which shows that only 20% of subjects had good level of knowledge whereas 80% had poor level of knowledge regarding leucorrhoea.
- There is significant association of knowledge with age, education, occupation, family monthly income and age of menarche. The present study is supported by the study conducted by Meena Kumari Bimal in Ludhiana which revealed that there is significant association of leucorrhoea with age, education, husband’s education, and type of family, parity, use of contraception and mode of delivery.
- The finding of the present study reveals that that 5% of participants had good knowledge, 57% had average

knowledge and 38% had poor knowledge which is supported by a study conducted by Zaher Ebtisam Hashem, Khedr Nahed Fikry Hassam, Elmashad Hanan Awad M among 500 women employee of Mansoura University, which shows majority of women had bad knowledge about vaginal discharge as they considered vaginal discharge as normal, not a serious problem.

4. Conclusion

- As leucorrhoea is a common problem faced by the women of reproductive age group and is one of the common sign of reproductive tract infections. Knowledge about leucorrhoea could help women to effectively deal with the various problem associated with it.
- The study shows that there is a need to improve knowledge regarding leucorrhoea in women of reproductive age group. The health care professional especially nurses should take initiative and improve knowledge of community people through various activity. We will take a step-in providing knowledge by distributing pamphlets and try to get 100% good knowledge.

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