

Vulnerability of married fisher women for premalignant cervical lesions at Coastal TamilNadu

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Abstract: Background: Cervical cancer is the second highest reported in India with Incidence of 22.9 % and mortality rate of 20.7%. It increases in the areas prone for most known risk factor of cervical cancer. Recent research findings have shown the married fisher women in the coastal areas being more prone for cervical cancer. **Aim:** This study aimed at identifying the vulnerability of the married fisher women for acquiring premalignant lesion. **Setting:** The study was conducted in 5 fishermen communities under Sadras a coastal area in Tamilnadu, India. **Participants:** 250 married fisher women residing at the area. **Methodology:** Quantitative descriptive approach with cross sectional study design was used. Data was collected by using structured interview schedule for identifying the vulnerability and Pap smear test was done for identifying the premalignant cervical lesions among the married fisher women. Data was analyzed using descriptive and inferential statistics. **Results:** The study findings showed that about 6 (2.4 %) were found to have Precancerous cervical lesions such as Atypical Squamous Cell of Undifferentiated Significance (ASCUS) (5) and Mild dysplasia (1), 178(71.2%) had abnormal Cervix such as infection, inflammatory changes with the Pap smear findings. The study findings also showed the significant association of risk factors such as advanced age, lack of education, low socio economic status, using tobacco, multiparity, pre marital sex, extra marital relationship, using cloth as sanitary napkin with the abnormal findings which is supported by the odds ratio. **Conclusion:** Study findings clearly show the increased vulnerable state of the fisher women for acquiring cervical cancer as they had many risk factors contributing to cervical cancer.

Keywords: Cervical cancer, Pre malignant lesions, Fisher Women, Pap smear.

Introduction:

Cervical cancer is the second largest killer among the cancer in the developing countries. In India the incidence of cervical cancer is about 1,22,844 (22.9 %) while the mortality is 67,477(20.7%) in the overall mortality^[1]. In TamilNadu it also accounts the second largest with incidence varying in different districts, In Chennai the incidence of cervical cancer is 15. 1%^[2]. There is a high incidence felt in north eastern districts of TamilNadu, Thiruvallur (28.6), Villupuram (31.1), Pondicherry (39.2), Cuddalore (29.9)^[3].

The investigator on literature search and personal field experience came to witness the increase in the incidence of cervical cancer among the among the married fisher women residing at the coastal areas of TamilNadu. The above verdict was supported by studies done in coastal areas of Andhra Pradesh^[4] and Karnataka^[5] where increase in the prevalence rate of cervical premalignant lesions was presented.

Materials and Methods:

Study Participants: The study used a cross sectional design where the participants were selected in 5 fisher women communities at Sadras, TamilNadu. The study participants were all married woman with the age between 20 – 45 years of age. The total target population of these women in the study area was 980 where more than 600 participants were contacted and about 250 women gave willingness to participate. Convenient sampling technique was used to select the samples.

Objectives: The primary objective was to identify the vulnerability of married fisher women for acquiring pre malignant cervical lesions.

Tools & Techniques: The investigator used a structured questionnaire which consisted of Part I- Demographic data , Part II consisted of Section A- Personal Habits, Section B- factors related to Perineal Hygiene, Section C- Factors related to sexual behavior and hygiene, Section D – factors related to family welfare practices and gynecologic problems and Part III consisted of Observational tool for vaginal examination where External Genitalia, Vaginal and Cervix appearance was assessed by the investigator and Pap smear collected from all study participants. The Pap Smear was investigated and reported by the pathologist of Govt.Chengalpettu Medical College Hospital, Chengalpattu.

Ethical Clearance: The study was approved by the Institutional Ethical committee of Chettinad Hospital and Research Institute, TamilNadu. All participants were given privacy and information's collected individually and confidentiality was maintained. The clients who have been identified with having premalignant cervical lesions were referred to the regional cancer centre in Chennai, TamilNadu, India for further testing and treatment.

Statistical Methods: The investigator has used frequency and percentage distribution to show the overall findings. Logistic Regression was used to determine the Odds ratio.

Results: The study findings showed that about 6 (2.4%) were found to have precancerous lesion such as ASCUS (5) and Mild dysplasia (1), 178(71.2%) had abnormal Cervix such as infection, inflammatory changes with the Pap smear findings (as shown in figure 1).

Figure 1: Finings of Pap smear among 250 fisher woman.

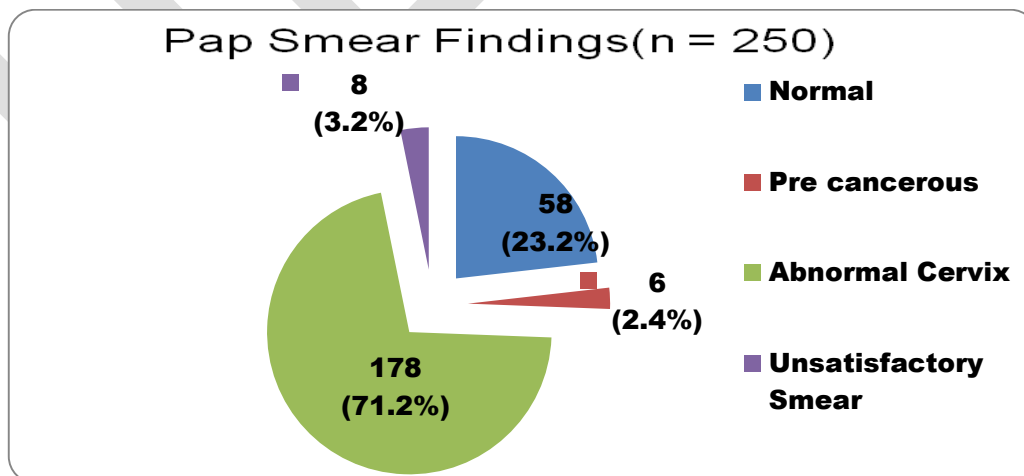


Table 1 depicts the risk factors which contributed to the abnormal cervical findings identified by Pap smear test. among the risk factors low socio economic status with regard to family income level below Rs 4000 per month ; lack of education in terms of lack of formal education ;use of tobacco; alcohol; having extra marital relationship; pre marital sex; husband without circumcision; Frequent shellfish eating; using cloth as sanitary napkin; not performing vaginal douching after coitus; frequency of sexual intercourse i.e. having daily/more than thrice weekly; not using any temporary methods of family planning and having post coital bleeding showed significant abnormal cervical findings.

Table 1: Frequency and percentage distribution of the risk factors of the participants and their abnormal Pap smear findings such as Pre cancerous lesions, inflammatory changes and infection

| S.No | Risk factor | Having Risk factor | | Abnormal Cervix | |
|---|--|--------------------|------|-----------------|------|
| | | N | % | N | % |
| Demographic and personal habits | | | | | |
| 1. | Age between 41 -15 years | 68 | 27.2 | 61 | 24.4 |
| 2. | Married before 18 years | 67 | 26.8 | 50 | 20 |
| 3. | Parity 3 and above | 99 | 39.6 | 82 | 32.8 |
| 4. | Family Income below Rs.4,000/Month | 182 | 71.8 | 132 | 52.8 |
| 5. | No formal education | 101 | 40 | 81 | 32.4 |
| 6. | Tobacco use | 58 | 23.2 | 49 | 19.6 |
| Factors related to perineal hygiene | | | | | |
| 1. | Cloth as sanitary napkin | 133 | 53.2 | 102 | 40.8 |
| 2. | Drying napkin under sun | 96 | 38.4 | 70 | 28 |
| Factors related to sexual behavior and Hygiene | | | | | |
| 1. | Not performing vaginal Douching after coitus | 69 | 27.6 | 59 | 23.6 |
| 2. | Coitus daily/Thrice a week | 28 | 11.2 | 21 | 8.4 |
| 3. | Extra marital relationship | 12 | 4.8 | 11 | 4.4 |
| 4. | Pre marital sex | 9 | 3.6 | 6 | 2.4 |
| 5. | First sex before 15 years of age | 36 | 14.4 | 31 | 12.4 |
| Factors related to family welfare practices and gynecological problems | | | | | |
| 1. | Not using temporary methods of family Planning | 196 | 78.4 | 141 | 56.4 |
| 2. | Having problem in uterus | 111 | 44.4 | 84 | 33.6 |
| 3. | Post coital bleeding | 9 | 3.6 | 7 | 2.8 |

The odds ratio calculated using logistic regression which showed significant risk of acquiring premalignant cervical lesions were presented in the table 2.

Table 2: odds ratio for risk factors associated to Pap smear findings

| S.No | Risk factor | Odds ratio for Pap Smear Precancerous lesion at 95 % Confidence interval (lower – upper) |
|------|--------------------------------|--|
| 1. | Family Income (< Rs.4000) | 1.229 (0.389 - 3.885) |
| 2. | Wife Education(Illiterate) | 3.026 (1.293 - 7.079) |
| 3. | Husband Education(Illiterate) | 1.625(0.510 - 5.180) |
| 4. | Tobacco Use | 2.185 (0.949- 5.030) |
| 5. | Alcohol Use | 1.639 (0.263- 10.206) |
| 6. | Extra Marital relationship | 1.054 (1.023 - 1.086) |
| 7. | Pre marital sex | 1.040(1.014 - 1.066) |
| 8. | Husband with STI | 1.093 (0.178 - 6.705) |

| | | |
|-----|---|-----------------------|
| 9. | Husband No Circumcision | 1.058 (1.026 - 1.091) |
| 10. | Shellfish eating | 1.844 (1.640 - 2.073) |
| 11. | Using Cloth as sanitary pad | 1.158(1.096 - 1.224) |
| 12. | Washing after intercourse | 1.413(1.302 - 1.534) |
| 13. | Frequency of Sexual Intercourse | 1.129(1.079- 1.182) |
| 14. | Not using temporary family planning methods | 1.639 (0.514- 5.225) |
| 15. | Bleeding after sexual intercourse | 1.040(1.014 - 1.066) |

Discussion:

The present study has clearly showed the risk of exposure of the fisher woman community to cervical cancer and the association of the no of risk factors with the findings shows how vulnerable these groups of woman are. The current study findings were similar to the studies done by **Bhagya Lakshmi et al^[6]** in vishakapattinam , AndhraPradesh, **Ushadevi G et al^[7]** among rural women of Kancheepuram district, Tamil Nadu and **Ravikiran E et al^[8]** in rural women of Nalgonda, AndhraPradesh.

Conclusion:

The current study showed the vulnerability of the fisher women community in acquiring cervical cancer and the study also recommends a real need of urgent intervention in terms of mass awareness and screening program to be initiated to the fisher woman community to reduce the magnitude of problem in future.

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