

# Utilization pattern of various cervical cancer screening methods and their outcomes among patients visiting outpatient department of tertiary care hospital

## Running title: Cervical cancer screening methods

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**ABSTRACT: Background:** *The present study was conducted to assess utilization pattern of various cervical cancer screening methods and their outcomes among outpatients of tertiary care hospital.*

**Materials & Methods:** *140 women age ranged 20-50 years were recruited. A questionnaire was developed and distributed among all subjects and asked to fill it and return it. Awareness and utilization and pattern of cervical screening was noted.*

**Results:** *Age group 20-30 years comprised of 40, 30-40 years had 60 and 40-50 years had 40 subjects. Education level was upto primary in 65, secondary in 45 and no education in 30 subjects. 90 were married, 25 unmarried and 15 were widow. 98 had awareness and 42 had never heard about it. 55 utilized it and 85 never utilized it. The difference was significant ( $P < 0.05$ ). The type of methods of screening was PAP's smear in 15, VIA in 35, VILI in 10, frequency of screening was yearly in 35, once in 20 and never in 85. Accessibility to results of screening was 25 received results of screening, 10 not received results of screening and 20 did not indicate receipt of results of screening. The difference was significant ( $P < 0.05$ ).*

**Conclusion:** *Authors found that there was lack of awareness and utilization of cervical screening among subjects. Most commonly used methods was visual inspection with acetic acid.*

**Keywords:** *Cervical cancer, PAP, Visual inspection*

## 1. INTRODUCTION

Worldwide, cervical cancer comprises approximately 12% of all cancers in women. It is the second most common cancer in women worldwide, but the commonest in developing countries.<sup>1</sup> Annual global estimates around the year 2000 are for 470 600 new cases and 233 400 deaths from cervical cancer annually. Eighty percent of these cases occur in developing countries.<sup>2</sup>

Most cervical cancers are caused by the human papillomavirus (HPV), which is transmitted through sexual contact. HPV 16 and HPV 18 are strains known to be responsible for approximately 70% of all cases of cervical cancer and are usually asymptomatic.<sup>3</sup>

As female sex workers (FSWs) face the dual risks and burdens of both HPV and HIV infection, cervical cancer screening and treatment for cervical intraepithelial neoplasia should be provided to all FSWs.<sup>4</sup> Studies have indicated that multiple sexual partners may increase a person's risk of HPV transmission. In a study of Hungarian FSWs, a great majority (82.4%) harbored detectable levels of HPV deoxyribonucleic acid compared with 46.2% of the general female population ( $P < 0.05$ ). Thus, FSWs may face a greater risk of infection, compared to the general population.<sup>5</sup> FSWs also have an elevated HPV risk factor level, which is related to the inconsistent use of personal protective barriers (e.g. condoms). Other risk factors for HPV infection include multiple sexual partners, a higher number of sexual partners, HIV infection, and the use of non-barrier contraception. Younger age and the number of years performing sex work have been also associated with an increased risk of HPV infection among FSWs.<sup>6</sup> The present study was conducted to assess utilization pattern of various cervical cancer screening methods and their outcomes.

## 2. MATERIALS & METHODS

This study was conducted among 140 women age ranged 20-50 years after obtaining written consent from all. Ethical approval for the study was taken before starting it.

Demographic data such as name, age, gender etc. was recorded in case history performa. A questionnaire was developed and distributed among all subjects and asked to fill it and return it. Awareness and utilization and pattern of cervical screening was noted. Results were tabulated and subjected to statistical analysis. P value less than 0.05 was considered significant.

## 3. RESULTS

Table I Socio- demographic data

Parameters	Number
<b>Age group (Years)</b>	
20-30	40
30-40	60
40-50	40
<b>Education</b>	
Primary	65
Secondary	45
No education	30
<b>Marital status</b>	
Married	90
Unmarried	25
Widow	15

Table I shows that age group 20-30 years comprised of 40, 30-40 years had 60 and 40-50 years had 40 subjects. Education level was upto primary in 65, secondary in 45 and no education in 30 subjects. 90 were married, 25 unmarried and 15 were widow.

Table II Awareness and utilization of cervical cancer screening services

Parameters	Number	P value
<b>Awareness</b>		
Aware	98	0.01
Never heard	42	
<b>Utilization</b>		
Utilized	55	0.05
Never utilized	85	

Table II shows that 98 had awareness and 42 had never heard about it. 55 utilized it and 85 never utilized it. The difference was significant ( $P < 0.05$ ).

Table III Pattern of cervical screening

Parameters	Number	P value
<b>Type of methods</b>		
PAP smear	15	0.05
VIA	35	
VILI	10	
Not applicable	80	
<b>Frequency</b>		
Yearly	35	0.02
Once	20	
Never	85	
<b>Accessibility to results of screening</b>		
Received results of screening	25	0.07
Not received results of screening	10	
Did not indicate receipt of results of screening	20	

Table III shows that type of methods of screening was PAP's smear in 15, VIA in 35, VILI in 10, frequency of screening was yearly in 35, once in 20 and never in 85. Accessibility to results of screening was 25 received results of screening, 10 not received results of screening and 20 did not indicate receipt of results of screening. The difference was significant ( $P < 0.05$ ).

#### 4. DISCUSSION

Even though the efficacy of cytology screening has never been proven through randomized trials, it is generally agreed that it has been effective in reducing the incidence of and mortality from the disease in developed countries.<sup>7</sup> There is general agreement that high quality cytology is a highly specific screening test, with estimates of the order of 95–99%. Recently, controversy has arisen over whether cytology is sufficiently sensitive, largely because of cross-sectional studies conducted in different settings, meta-analyses of several studies and comparisons made with VIA and HPV testing.<sup>8</sup>

The visual methods of screening include unaided visual inspection of the cervix ('downstaging'), visual inspection with 3-5% acetic acid (VIA) (synonyms: direct visual inspection (DVI), cervicospoty, aided visual inspection), VIA with low-level magnification (VIAM), cervicography, and visual inspection with Lugol's iodine (VILI). Downstaging has

been shown to be inaccurate in detecting disease, particularly cervical pre-cancers (64), and is not further considered in this report.<sup>9</sup> Among the visual inspection approaches, VIA has been more widely investigated for its performance characteristics (accuracy) in detecting cervical neoplasia, in various settings, by different providers.<sup>10</sup> The present study was conducted to assess utilization pattern of various cervical screening methods and their outcomes.

In present study there were 140 subjects. Age group 20-30 years comprised of 40, 30-40 years had 60 and 40-50 years had 40 subjects. Education level was upto primary in 65, secondary in 45 and no education in 30 subjects. 90 were married, 25 unmarried and 15 were widow. Ilesanmi I et al<sup>11</sup> examined the pattern of cervical cancer screening service utilizations among FSWs in the Abuja metropolis. This descriptive cross-sectional survey used a purposive sampling technique to select 406 respondents via a structured questionnaire including questions regarding whether they had been screened for cervical cancer, the frequency of screening and type of screening method. The response rate among the participants was 97.6%. The mean age of the FSWs was  $32 \pm 5.1$  years. Regarding the pattern of screening age, the mean age at the first screening was  $28 \pm 4.3$  years. Only 81 (20%) participants had been screened annually, and visual inspection with acetic acid was most frequently used (20.9%). Respondents preferred to undergo screening in their brothels. The awareness of screening services was high ( $n = 290, 71.4\%$ ); however, the utilization of cervical cancer screening services remained low, as 246 (60.6%) FSWs had never been screened. The non-utilization of screening services was related to poor accessibility and a lack of awareness and interest.

We found that 98 had awareness and 42 had never heard about it. 55 utilized it and 85 never utilized it. The type of methods of screening was PAP's smear in 15, VIA in 35, VILI in 10, frequency of screening was yearly in 35, once in 20 and never in 85. Accessibility to results of screening was 25 received results of screening, 10 not received results of screening and 20 did not indicate receipt of results of screening. The difference was significant ( $P < 0.05$ ).

The barriers to screening service utilization identified in previous studies range from language issues to not receiving Pap smear test results, as reported by 611 FSWs. Other barriers include a poor reception by staff, stigmatization and lack of confidentiality, as reported in a survey on the barriers to sexual and reproductive health services administered to 311 FSWs in Tete, Mozambique in 2016.<sup>12</sup>

The shortcoming of the study is small sample size.

## 5. CONCLUSION

Authors found that there was lack of awareness and utilization of cervical screening among subjects. Most commonly used methods was visual inspection with acetic acid.

## 6. REFERENCES

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