# AWEARNESS OF CERVICAL CANCER AND SCREENING AMONG COMMERCIAL SEX WORKER IN KEDAMAY WEYANE SUB CITY MEKELLE ETHIOPIA 2017/18

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## Abstract

**Background**: Cervical cancer is the commonest cancer affecting reproductive organ and also leading cause of death from cancer among women. The aim of this study was to assess the level of knowledge, attitude and practice of cervical cancer and screening among commercial sex workers in Kedamay Woyane Sub City.

**Method**: A community based descriptive cross-sectional study was carried out. Study included - all commercial sex workers who were available during the data collection period. A semi structured questionnaire was used to obtain socio-demographic information, knowledge, attitude and practice on cervical cancer and screening.

**Result**: A total of 301 commercial sex workers participated in the study with response rate of 277(92%). Among those respondents who heard of cervical cancer, nearly half of 113(43.2%) respond that they know risk of cervical cancer, and 34(12.9%) know that avoid having multiple sexual partners is preventive methods and 16(6.1%) mention HPV vaccine as prevention method. From all the respondents, almost half 129(49.23%) of them are thinking Carcinoma of the cervix cannot be transmitted from one person to another. Among all CSWs of the study only 46(16.6%) had cervical cancer screening

**Conclusion**: Commercial Sex workers in Kedamay Woyane sub city had suboptimal levels of cervical screening practice. However, more than half of CSWs have positive attitude towards cervical screening, Studies highlighted that majority of commercial sex workers had good

knowledge to ward cervical cancer screening, National cervical cancer screening campaign as outreach service delivery models' programs should be primarily be administered to CSWs

**Key words**: cervical cancer, screening, knowledge, attitude, practice

***Background***

Cervical cancer is a cancer arising from the cervix, which is due to the abnormal growth of cell that has the ability to invade other part of the body. It is almost always caused by human papilloma virus (HPV), specifically two strain HPV 16 and HPV 18. Other risk factor includes give birth to many children, smoking, using oral contraceptive for long time, low immune system and first sexual intercourse initiation at early age. (1,2) Cervical cancer is the commonest cancer affecting reproductive organ and also, leading cause of death from cancer among women (3, 4).

According to the report from WHO, globally in 2012, cervical cancer incidence was 7.9%, mortality 7.5%- and five-year prevalence was 9%. In sub-Saharan Africa the incidence was 25.2%, mortality 23.2%- and five-year prevalence was 27.6%. In Ethiopia the incidence was 17.3%, mortality 16.5%- and five-year prevalence was 18.2% (5).

Cervical cancer screening is away to detect abnormal cervical cells, including precancerous cervical lesion, as well as early cervical cancer. Routine cervical screening has been shown to greatly reduce both the number of new cervical cancers diagnosed each year and deaths from the diseases. According to guidelines, women ages 21 to 29 should be screened every three years. And women with certain risk factor should screen more frequently. Cervical cancer trend is significantly reduced in high income countries due to early diagnosis and treatment. And because of poor access to quality screening and treatment service, the trend is increasing in developing countries (2, 6).

FMOH with local partners establish service in 14 health institution (including five cervical cancer prevention center of excellence) in region of Addis Ababa, Amhara, Oromia, Tigray, Southern Nations Nationalities(SNNPR) (7). Cervical Cancer screening could reduce at least 50% of Cervical Cancer deaths. For early screening and early detection, having knowledge is important. Women with a better knowledge of cervical cancer were more likely to attend cervical cancer screenings. Lack of knowledge about cervical cancer remains an important factor that affects the participation of women in these screening practices (8).

Female sex workers have an overall high prevalence of HPV infection of high-risk types as evident through various testing methods. FSWs are thought to be at increased risk of cervical cancer because of high HPV exposure. Raising the level of knowledge, effective vaccine utilization in the young age group of FSWs can reduce the incidence of HPV infection and cervical cancer (9, 10)

Commercial sex workers have great role for prevalence as they are prone of CCa and STI' so, it need special attention for them; however, there is scarce of data regarding to level of awareness of CCa among CSW. This all show the need of information regarding knowledge attitude and practice on cervical cancer screening among CSW obligatory to see the problem for better intervention. Hence, this study is aimed to assess knowledge attitude and practice on cervical cancer screening and factors associated with it.

## *Methods and materials*

The study was carried out in Mekelle City, North Ethiopia, from February to May, 2018. Mekelle is located 780 km far from the capital Addis Ababa. The city divides in to 7 sub-cities with a total residence of 412,938, according to the 2017 city administrative report. Out of the total population female accounts 51.4 %, male 48.6%. A community based descriptive cross-sectional study was carried out. Source of population was all commercial sex workers who were found in Kedamay Woyane Sub City. Study included -all commercial sex workers who were available during the data collection period. The number of registered commercial sex workers in the Kedamay Woyane Sub City admirative office at the time of the study period was 301. We aimed to reach all of CSW in the Sub city. In addition, 20 of CSWs could not be reached hence they were missed during the study period for different reasons, 4 CSWs were refused to participate, the overall study participants were 277 (92%) CSWs. A semi structured questionnaire, and interviewed technique were used to obtain socio-demographic information, knowledge, attitude and practice on cervical cancer and screening. The questionnaire was developed in English and then translated into Tigrigna language. To ensure the quality of the data, based on previous experience two female data collectors were recruited and trained for two day prior to data collection day by principal investigators. The data collectors were regularly supervised by the principal investigator for proper data collection. The supervisor had routine checkups for completeness and consistency of the data. data tools were pre-tested before the actual data collection to check for the accuracy of responses,

language clarity, and appropriateness of the tools. And the necessary changes were done based on the findings of the pretest. Ethical clearance approval from Ben Meskerem Prime College Research Committee and Kedamayweyane administrative office permission letter was secured and; details about study and its purpose were explained to the CSWs and that their participation purely voluntary and they were free to decline or withdraw at any time in the course of the study, only those willing to participate was included in the study. Statistical analysis was performed using SPSS 20 version software package, p values less than 0.05 were considered significant, at 95% confidence interval. In the data analysis, descriptive statistics and chi-square tests were applied.

***Operational definition***

- Knowledgeable of cervical cancer: Those respondents who score medians score of 5 and above for the cervical cancer assessing question.
- Poor knowledge of cervical cancer: those respondents who score below median score of 5 for the cervical cancer assessing question.
- Favorable Attitude; respondents who score medians score of 4and above for the cervical cancer assessing question.
- Unfavorable Attitude; those respondents who score below median score of 4 for the cervical cancer assessing question.
- Good practice: that respondent s that screen for cervical cancer at more than once.
- Practice: The respondents who screen for cervical cancer at least once.

## *Result*

Socio-demographic characteristics

A total of 301 CSW were participated. Of these, 24(9%) were excluded from the analysis due to missing and Unwilling to participate. The remaining, 277 CSW were included in the analysis. Majority 232 (84%) of the CSWs were between age of 19-35. Concerning their educational status 54(19.49%) were unable to read and write, nearly two-third 181(65.3%) of respondents were finished Primary school whereas forty-two (15.1%) of them were completed secondary school. Approximately, half of 151 (54.0%) of the CSW monthly income were 601-1500 Ethiopian Birr. (Table 1)

**Table 1. Socio demographic characteristics Commercial sex workers of the study participants in Kedamay Woyane Sub City, Mekelle, Ethiopia, 2017, n,277.**

| Variables | Category | Frequency(n=277) | Percentage |
|---|---|---|---|
| **Age** | <18 | 19 | 6.8 |
| | 18-35 | 232 | 83.7 |
| | ≥36 | 26 | 9.5 |
| **Religion** | Orthodox | 274 | 99.0 |
| | Muslim | 3 | 1.0 |
| **Educational status** | Illiterate | 54 | 19.5 |
| | Primary school | 181 | 65.3 |
| | Secondary school | 42 | 15.2 |
| **Monthly income** | <600 | 20 | 7.4 |
| | 601-1500 | 151 | 54.5 |
| | 1501-3000 | 80 | 28.8 |
| | >3000 | 26 | 9.3 |
| Working years | <10 years<br>>10 years | 210<br>67 | 75.8%<br>24.2% |

***Knowledge about cervical cancer screening***

Assessing the CSWs' knowledge about CCA screening, majority 67.9% knew about CCa screening, only 16.6% had previously undergone smear test, 43.3.8% specified it should be done after the age of 18, only 20.2% remarked it should be performed annually and majority 58.1% didn't know when should be performed. Two third of CSWs knew that increasing sexual partner increases having CCa. Majority 77.3% CSWs believed that using could protect CCa (Table 2).

**Table 2.CSWs' level of knowledge about Screening and cervical cancer in Kedamay Woyane Sub City, Mekelle, Tigray, Ethiopia 2017, n, 277.**

| Level of knowledge about CCa screening | Categories | Frequency | Percent |
|---|---|---|---|
| Do you know the screening test of cervical cancer? | Yes<br>no | 89<br>188 | 32.1<br>67.9 |
| Did you have a smear test? | Yes<br>no | 46<br>231 | 16.6<br>83.4 |
| How often (n:46) | Once<br>Twice | 20<br>16 | 43.6<br>34.7 |

| | | | |
|---|---|---|---|
| | Three times<br>Four & above | 10 | 21.7 |
| When must a smear test be applied? | Age 18 & above<br>Age 30 & above<br>Age 40 & above | 120<br>123<br>34 | 43.3<br>44.4<br>12.3 |
| How often must a smear test be applied? | Once in a 6-month Once in a year<br>Once in a 2-year<br>I Don't know | 40<br>56<br>20<br>161 | 14.4<br>20.2<br>43.6<br>58.1 |
| **Level of knowledge about cervical cancer** | | | |
| **Heard about CCa** | Yes<br>No | 261<br>16 | 94.6<br>3.4 |
| Do you know that sexual experience under the age of 18 increases the risk of cervical cancer? | Yes<br>No | 48<br>229 | 17.3<br>82.7 |
| Do you know that more than one partner increases the risk of cervical cancer? | Yes<br>No | 217<br>60 | 78.3<br>21.7 |
| Do you know that smoking increases the risk of cervical cancer? | Yes<br>No | 51<br>226 | 18.5<br>81.5 |
| Do you know that HPV may lead to cervical cancer? | Yes<br>No | 222<br>55 | 80.1<br>19.9 |
| Do you know that you can be protected from cervical cancer by vaccination? | Yes<br>No | 205<br>72 | 74.0<br>26.0 |
| Do you know at which age you can be vaccinated? | Yes<br>No | 102<br>175 | 36.8<br>63.2 |
| Would you like to be vaccinated? | Yes<br>No | 198<br>79 | 71.5<br>28.5 |
| Believed Condom usage prevent CCa | Yes<br>No | 214<br>63 | 77.3<br>22.7 |

***Attitude towards cervical cancer and screening***

From all the respondents, almost half 129(49.23%) of them are thinking Carcinoma of the cervix cannot be transmitted from one person to another, and almost one third 102(38.9%) of participants agreed that cervical cancer screening prevents cervical cancer, and majority 231(83.3%) of CSWs were agreed to undergo cervical cancer screening if free (Table 3).

**Table 3. Attitude of respondent about cervical cancer and screening in Kedamay Woyane Sub City, Mekelle, Tigray, Ethiopia 2017, n, 277.**

| Variable | Category | Frequency | percent |
|---|---|---|---|
| Carcinoma of the cervix cannot be transmitted from one person to another | Yes | 101 | 36.5 |
| | no | 129 | 46.5 |
| | Don't know | 47 | 17.0 |
| Screening helps in prevention of carcinoma of the cervix | Strongly agree | 48 | 18.3 |
| | Agree | 102 | 36.9 |
| | Neither agree nor disagree | 60 | 21.6 |
| | Disagree | 67 | 21.6 |
| Screening causes no harm to the client | Strongly agree | 60 | 21.6 |
| | Agree | 107 | 38.6 |
| | Neither agree nor disagree | 67 | 24.1 |
| | Disagree | 43 | 15.5 |
| Screening for premalignant cervical lesions is not expensive | Strongly agree | 98 | 35.4 |
| | Agree | 107 | 38.6 |
| | Neither agree nor disagree | 25 | 9.0 |
| | Disagree | 32 | 11.5 |
| | Strongly disagree | 15 | 5.5 |
| If screening is free and causes no harm, will you screen | Strongly agree | 12 | 4.3 |
| | Agree | 231 | 83.3 |
| | Neither agree nor disagree | 21 | 7.5 |
| | Disagree | 6 | 2.1 |
| | Strongly disagree | 7 | 2.5 |

***Practice of cervical cancer screening***

Among all CSWs of the study, only 46(16.6%) had cervical cancer screening. Of those who Screened for cervical cancer nearly one third 16(34.78%) screened in hospitals and the rest majority 28(60.9%) screened at Health center. Around two third 28(60.9%) of them were screened by initiation of health professionals and 18(39.1%) were self-initiated. All of them had only one-time exposure for screening. Respondents who have no screening practice were asked

for their reasons for not to screen and among those who heard of screening 101(36.4%) mentioned absence of as they think they were healthy, 35(12.7%) do not know screening, 34(12.3%) I feel shy107(38.6%) mentioned I haven't just decided as reason for not practicing (Table4).

**Table 4. Practice of respondent about cervical cancer and screening in Kedamay Woyane Sub City, Mekelle, Tigray, Ethiopia 2017 n, 277.**

| Variable | Category | Frequency | percent (%) |
|---|---|---|---|
| Have you ever screened for cancer of the cervix | Yes | 46 | 16.6 |
| | No | 231 | 83.4 |
| How often (n:46) | One times | 20 | 43.4 |
| | Twice | 16 | 34.7 |
| | Three times | 10 | 21.7 |
| | Four times & above | | |
| Where did you screen | Hospital | 16 | 34.8 |
| | Private | 2 | 4.3 |
| | Health centers | 28 | 60.9 |
| What was the indication | Self-initiated | 18 | 39.1 |
| | offered by the health professionals | 28 | 60.9 |
| When was the last time you screened | Within the past three years | 28 | 60.9 |
| | More than three years ago. | 18 | 39.1 |
| If no, why? | It may be painful | 0 | 0 |
| | I am healthy/No Symptom | 101 | 36.4 |
| | I am not informed/knowledge | 35 | 12.7 |
| | I feel shy | 34 | 12.3 |
| | I haven't just decided | 107 | 38.6 |

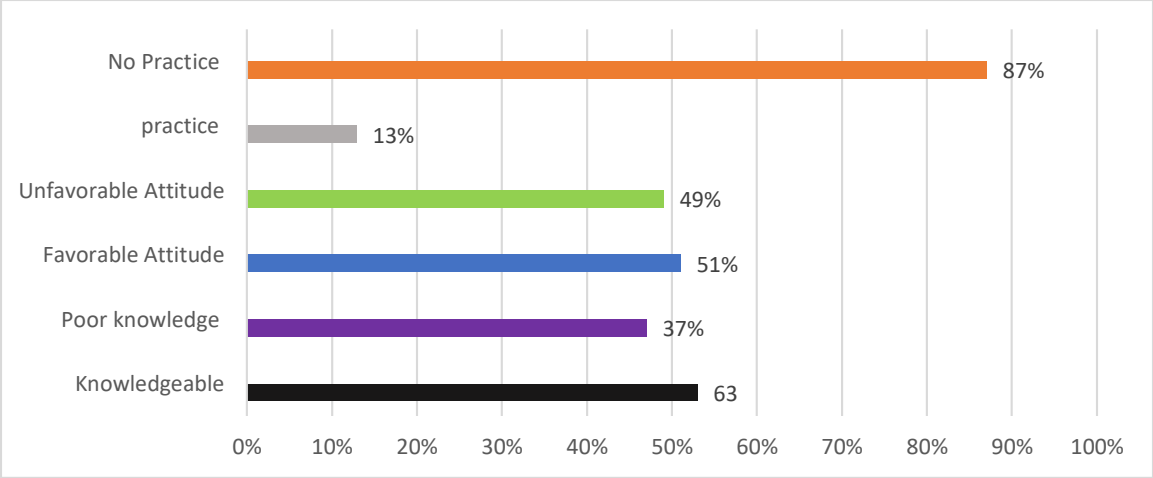


Figure 1. Level KAP to ward CCAS in Kedamay Woyane sub city, Mekelle, Ethiopia 2017

Above Figure 1. Show that level of CSWs KAP using operational definitions measurements, examining Knowledge of CSWs using series question reviled that, majority had knowledge to ward CCa screening, more than two third 87% had not previously undergone CCA screening, more than half 51% CSWs had favorable attitude

## *Discussion*

This study tries to assess knowledge attitude and practice on cervical cancer and screening among commercial sex worker. Knowledge of cervical cancer was assessed by combining responses regarding risk factor, cause, preventive measures and treatment option assessing questions. Based on this, generally knowledge of respondents about cervical cancer found to be 63%. The study done in Congo which was 43%, our study was higher than this study. The possible reason may be due to different instruments, sample size and the similar study done in Gondar 35% (13). This can be explained due to the fact that the Gondar study was different instruments, sample size, the respondents in this study might have relatively higher contact with health professionals that could increase their knowledge about the disease. According to this study majority of the respondents 94.58% heard about cervical cancer. This finding was higher when compared to similar study in Gondar Ethiopia 78% (12, 11). The higher finding compared with the South African study might be due to the difference in time period, which was conducted in 2008, study population and the growing awareness currently might create such difference. Majority of respondents in this study mention Medias as their source of information regarding cervical cancer, Followed by health professionals and family and friends. This finding is consistent with other studies in Gondar

Ethiopia, South Africa and Nigeria (11, 12, 16) this due to similarity of socio demographic characteristics.

Regarding risk factor for cervical cancer over all 15.64% respondents mentioned having multiple sexual partner as risk factor and this result was consistent with the study findings in Tanzania which was 23% and higher from study done in Gondar Ethiopia which was 7.6% (11). This difference can be explained due to the fact that the Gondar study was among all reproductive age women and this study was commercial sex worker and their work increase that their contact to health professionals and which could have impact on their knowledge of cervical cancer related issues. According to this study only 19.9% of the respondents mention HPV as risk factor for cervical cancer. Which is lower when it compared to study in South Africa which was 32% this gap can be explained by the fact that South Africa has national policy on cervical cancer prevention (12). Among all the respondents more than half of the participants 66.03% did not know the treatment options. This finding was higher than the findings in Tanzania that only 12% of participants do not know about the treatment options (14). This could be due to the fact that there was a belief in Ethiopia that cervical cancer cannot be treated. Although the former result of screening knowledge was lower from this study, the little difference between these results showed, much has not been done regarding knowledge of cervical cancer screening in Addis Ababa for the past nine years. Those who heard of cervical cancer screening were 32.13% this finding was consistent with study done in South Africa which was 33% (12). In this study38.9% of participants knew that cervical cancer screening prevents cervical cancer, but in the southern African study almost all that heard of screening know that cervical cancer screening prevents cervical cancer. This showed the knowledge of participants of this study regarding cervical cancer screening was low and the fact that South Africa has a cervical cancer prevention policy have an effect on the knowledge of South African participants.

And in the present study all of participants agreed to screen for cervical cancer. This finding was consistent with different studies including study done in Addis Ababa that, almost all respondents were willing to undergo the screening test in the future when information was provided on the importance of the test (8). Similarly study in rural India also showed that 84.6% of the respondents were willing to undergo cervical screening test as they felt it would benefit them in the long run. And 57.2% of participants agreed that cervical cancer screening prevents cervical cancer, which

is lower when it is compared to study in the Tanzania in which 79.2% of participants agreed that cervical cancer screening prevents cervical cancer (14). This could be due to the fact that there was a belief in Ethiopia that cervical cancer cannot be treated.

In this study only 16.6% of the respondents had undergone screening. This was also a problem of many African countries. In a study done in Kenya, 22% of respondents were screened (15). Another study done in Tanzania showed that 14% of the respondents had undergone screening (14). And study done in Addis Ababa Ethiopia practice of cervical screening was 6.8%. Although all screening practices among all countries were low, the finding of this study tends to be lower (8). Our study show that common reason mentioned for not to screen was absences of symptoms and lack of knowledge. Similarly, studies from Addis Ababa reported that reasons not to undergo screening practice were absence of gynecologic symptoms (41.2%) and unable to know place where it is done (32.4%). And on another similar study in Nigeria, respondents identified fear of outcome of screening, lack of information and public awareness, lack of health worker request, high cost of screening and lack of personnel at the screening centers as the reasons why people did not practice cervical screening (16).

### *Conclusion and Recommendation*

Over all, Commercial Sex workers in Kedamay Woyane sub city had suboptimal levels of cervical screening practice. However, more than half of CSWs have positive attitude towards cervical screening, Studies highlighted that majority of commercial sex workers had good knowledge to ward cervical cancer screening, in addition, their willingness to practice cervical cancer screening was high. Lack of knowledge, accessibility of services with affordable price and absence of gynecological signs were among common perceived barriers for not to undergo cervical cancer screening practices.

National cervical cancer screening campaign as outreach service delivery models' programs should be primarily be administered to CSWs. Commercial sex workers focused raising the level of knowledge programs must be implemented as they are highly prone to CCa . There is a need to design policy and strategies which focused prevention and control of cancer among women's particularly CSWs.

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