

CERVICITIS AMONGST TEENAGE SEX WORKERS IN BENIN METROPOLIS, NIGERIA: THE VIEW POINT OF THE CYTOLOGIST

Odigie BE¹, Odega KI²

1. Department of Medical Laboratory Science, School of Basic Medical Sciences, College of Medical Sciences, University of Benin, Nigeria
2. Department of Pathology and Morbid Anatomy, University of Benin Teaching Hospital, Nigeria.

Corresponding author: Odigie BE
Email: bolaji.odigie@uniben.edu

ABSTRACT

Aim: Commercial sex is a risky activity of acquiring and transmitting sexually transmitted diseases. They have a disproportionate impact on the reproductive health of teenage girls, often leading to cervicitis. The aim of this work was to determine the prevalence of teenage prostitutes living in brothels in Benin City, Nigeria, while a secondary goal examined its relativity in the overall burden of cervicitis among teenage prostitutes.

Methods: Randomized sampling and the liquid based cytology technique were used for this research.

Results: 98 teenage prostitutes were identified within the confines of 45 brothels in 4 LGA with a prevalence of 10 (10.2%). The distribution reveals that Oredo LGA had 8(19.05%), Ovia North-East had 2(7.69%). 7 (7.14%) accounted for the acute stage of cervicitis and chronic stage was 3(3.06%).

Conclusion: There exist teenage prostitutes living with cervicitis in the commercial sex business.

Key Words: Brothels, Cyto-diagnosis, Prostitution, Liquid based cytology.

INTRODUCTION

The phenomenal increase in social problems across the globe and especially in developing countries is worrisome. The situation becomes serious when the problem is multi-dimensional in nature. Prostitution has been identified by scholars (Cockayne, 2001; Dworkin, 1992) as a global social and urban problem which has pervaded every dimension of human survival. Nigeria is not spared of this scourge, as prostitution has become so prominent that Nigerians refer to it as the Italian connection, sex working and or ashawo business. Edo state is not spared from this loss of self-dignity as a result of socio-economic breakdown; so is the Benin metropolis in Nigeria. Therefore, the concept of teenage prostitute is a difficult one because its conceptualization varies

depending on who is using it or the country in which it is being used. The health implication of a teenage sex worker is of paramount interest. Sexually transmitted diseases (STD) cause significant morbidity and mortality worldwide and in particular in developing countries (Passey et al., 1998; Jenkins and Passey, 1997). They have a disproportionate impact on the reproductive health of women, often leading to cervicitis, chronic pelvic inflammatory disease (PID), ectopic pregnancy, infertility and can facilitate HIV (human immunodeficiency virus) transmission. (Jenkins and Passey, 1997; Anang, 1997). Cervicitis refers to inflammation of the uterine cervix. The inflammation primarily affects the columnar epithelial cells of the endocervical glands, but can also affect the squamous epithelium of the

ectocervix. It may be due to an infectious or non-infectious etiology and may be acute or chronic. Acute cervicitis is usually due to infection (eg, chlamydia, gonorrhoea); although a specific infection cannot be determined in a large proportion of cases. Chronic cervicitis usually has a non-infectious source (Marrazzo, 2005). In addition, cervicitis appears to be associated with a significant increase in risk of HIV-1 acquisition and shedding (Johnson and Lewis, 2008). Lim and Chan (1991) reported a prevalence of 8.9% with preponderance for the late-teenagers (15%) among gynaecological patients. While, Mak (2000) showed an overall prevalence of 8%, with a preponderance for young adults and adolescents (age<24), the present work is designed to determine and evaluate the prevalence of teenage sex workers leaving with cervicitis in Benin City, Nigeria.

MATERIALS AND METHODS

The use of a randomized sampling of teenage sex workers and cyto-diagnostic method of cervical screening (Liquid based cytology) were used during this study (Edmund and Barbara, 2008).

Data Collection

The teenagers were surveyed by means of questionnaires completed on voluntary basis and conducted in informal English where necessary. The questionnaires included 30 questions that offered predominantly multiple-choice options, but open-ended questions were available where needed. Data were structured on socio-demographics, socio-economic, sexual experience, STD history, education and health-care-seeking behaviours.

Methods of Sample Collection

Samples for liquid based cytology using sure-path were obtained with a broom like sampling device (cyto-brush). The staining of the smears was according to the Liquid based cytology technique as described by (Edmund, 2002; Koss, 2005; Edmund and Barbara, 2008).

Population of Study

The study was conducted among an official urban population of 1,714, 322 in Benin City (Cleen foundation, 2012). The study comprises all available, volunteered, young and teenage looking sex workers within Benin metropolis, Nigeria.

Data Analysis

Data was conducted using Chi-square at $p < 0.05$ with an appropriate degree of freedom using Statistical package for social sciences (SPSS) version 16.0 (Inc Chicago, Illinois, USA).

Scope of Study and Area of Study

The areas of interest were Ovia north-east, Oredo, Ikpoba-Okha and Egor Local Government Areas representing 13, 15, 8 and 9 brothels in Benin City, Nigeria; while the study was conducted from 2012 to 2013.

RESULTS

The data captured from the survey reveals an average age of 15 (range 13-19) for commercial sex. The mean number of years of formal education was 3.9 and the median number was 4.7 years (range 1-10). About a third (35%) of the TSW had no formal education; 45% had six years of formal education while 20% were junior secondary school dropouts. 55% were from polygamous homes, 40% from single parents while 5% were orphans. Table 1 shows the prevalence of cervicitis in different Local Government Areas (LGA) in Benin City, Nigeria. Oredo LGA had the highest influx of TSW with infection rate of 8 representing (19.05%). This was followed by Ovia North-East which had 2 (7.69%) while Ikpoba-Okha and Egor LGA had little transits of TSW without infection. In relation to age (Table 2), 17-19 years (15.79%) and 13-16 years make up (2.44%) of the study group while the developmental stages (Table 3), shows 7 (7.14%) which represents the acute stage of the infection (Plates 1 and 2) and 3 (3.06%) from the chronic stage (Plates 3 and 4). Nevertheless, 10 cervical smears were positive for cervicitis, resulting in an overall prevalence of 18.23%. Meanwhile, the demographic, economic and behavioral characteristics of the cervicitis-positive and negative groups as outlined in Table 4 shows mean age, mean working duration as (TSW) and frequency of commercial sex (mean). Regular use of condom was put as 77.3% (68/88 participants) for the negative subjects as against 30% (3/10 participants) for the positive population that does not make use of condom regularly. The difference was statistically significant ($P = 0.0003$). In terms of religious affiliations; all respondents claimed to be Christians where 8% were Protestants and 92% were Catholics.

Table 1: Prevalence of cervicitis in teenage sex workers in four LGA in Benin City

L.G.A	Teenage sex workers screened	Teenage sex workers with cervicitis	Prevalence (%)
Oredo	42	8	19.05
Ovia North-East	26	2	7.69
Ikpoba-Okha	19	0	0
Egor	11	0	0
Total	98	10	26.74

Table 2: Prevalence of cervicitis in teenage prostitutes in relation to age

Age (yr)	Number examined	Number infected	Prevalence (%)
17-20	57	9	15.79
13-16	41	1	2.44
Total	98	10	18.23

Table 3: Cervicitis in teenage prostitutes

Stages of cervicitis	Number examined	Number infected	Prevalence %
Acute	98	7	7.14%
Chronic	98	3	3.06%
Total			10.2%

Table 4: Comparison of socio-demographic, socio- economic and behavioral characteristics of cervicitis with non-infected teenage sex workers

	Cervicitis-Negative (n=88)	Cervicitis-Positive (n=10)
Mean age	16.54	17.62
Mean working duration as TSW	12.26 months	17.05 months
Frequency of commercial sex (mean)	8.12 per week	6.4 per week
Regular use of condom	77.3% (68/88)	30% (3/10)

Note: Regular use of condom is defined as condom use regularly during both commercial sex and sex with regular partners while actual teenage ages used for this research are ages between 13 and 19.

Table 5: Frequency of migrant teenage sex workers by tribe (n=98).

Tribe	Frequency	Percentage (%)
Ibo	76	77.6
Yoruba	01	01.0
Tiv (Benue)	07	07.1
Effik (Calabar)	12	12.2
Hausa	00	00
Total	96	97.9

Note: Migrant TSW = 97.9 approximately 98%

Table 6: Analysis of parameters using logistic regression

Parameter	Chi square	P
Age	1.22101	0.0322
Working duration	0.4210	0.1012
Sex frequency	0.65484	0.0625
Condom use	1.1740	0.0104

(P<0.1 is statistically significant)

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Plate 1: Liquid based cytology. Acute cervicitis (moderate infection), where >70% of the inflammatory cells are neutrophils). X100

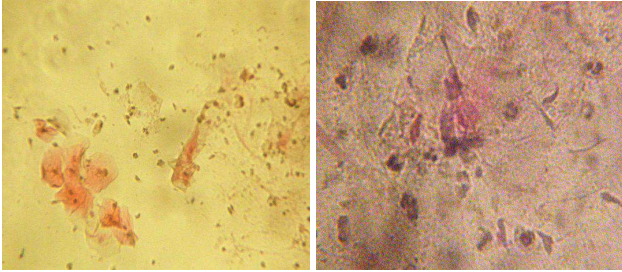


Plate 2: Liquid based cytology. Moderately severe acute cervicitis, where 50-70% of the inflammatory cells are neutrophils and 30-50% are macrophages. X100

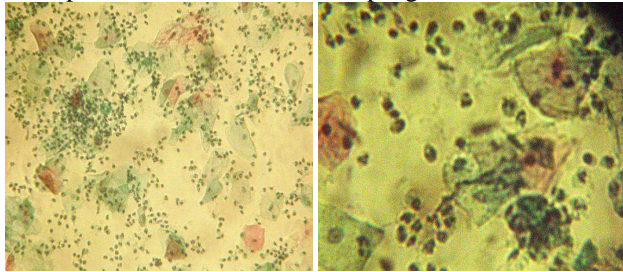
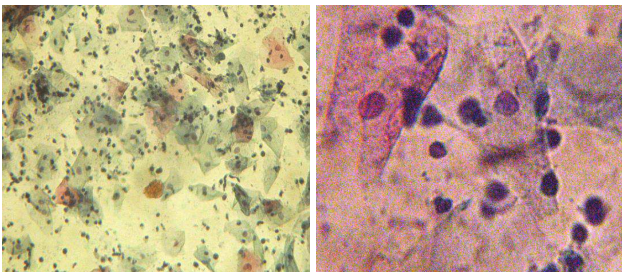


Plate 3: Liquid based cytology. Chronic stage of cervicitis where >50% of the inflammatory cells are macrophages. X100



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Plate 4: Liquid based cytology. Chronic cervicitis X100

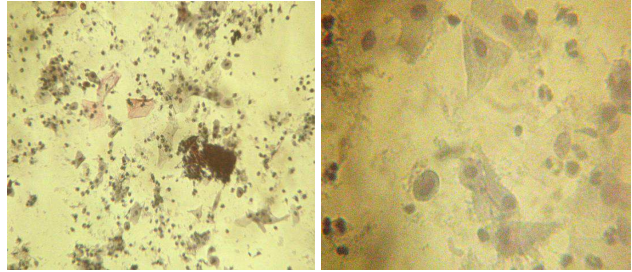


Plate 5: Normal cervical smears of a non-infected teenage prostitute X100.

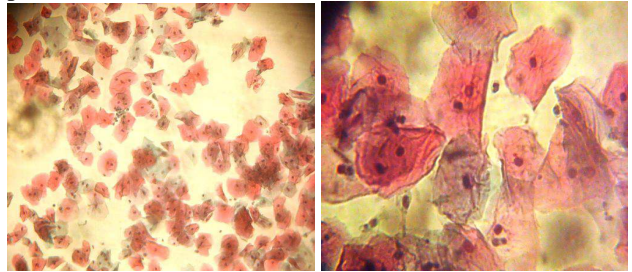
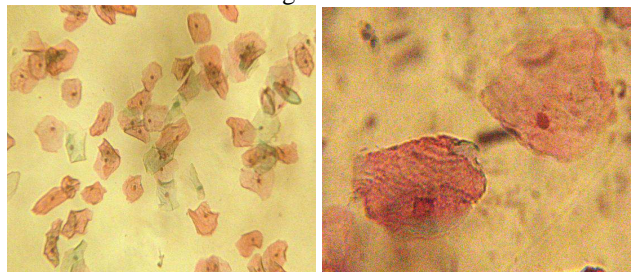


Plate 6: Liquid based cytology. Normal cervical smear from a non-infected teenage sex worker X100



DISCUSSION

Teenage operations in the sex industries are not so common. Moreover, works done on cervicitis amongst teenage prostitutes are also not common. The present study recorded a gloomy 98% migrant teenage prostitutes in Benin city, Nigeria (Table 5), which is in agreement with WHO (2007) which stated that, in 2004 the Poppy Project confirmed that 81% of women involved in prostitution in London were foreign nationals while Jenkins (2000) also suggested that most women working in brothels in the UK are from overseas. Lim and Chan (1991) reported a prevalence of 8.9% with preponderance

for the late-teenagers (15%) among gynecological patients which is almost in line with the present study. According to Ogunkan et al., (2010), the incidence of teenage prostitution was reported as 23.91% where he suggested that prostitutes were below the age of consent which is apparently in line with this study revealing 37.54% showing a gross increase from what was recorded at Ogbomosho, Nigeria in 2010. The report on refusal of teenage prostitutes to participate in the research was reported to have been extremely low (0.5%) and was further confirmed in the present study. It is possible that not all women who refused was recorded and that the real

response rate was lower, as this became evident in the present work where only 261 questionnaires were retrieved from the 300 distributed during the field exercise. From the foregoing, it is possible that the teenage sex workers recruited in this study did not represent completely all teenage sex workers at the various sites visited. However, he believes that his sample size was sufficiently valid. This fact also corresponds with (0.5%) observed from the present study. With respect to infection with cervicitis amongst teenage sex workers, the present study agrees with Pe'pin et al., (2005) who observed 26.3% infection with *M. genitalium* and *N. gonorrhoeae* where it was strongly and independently associated with each of the four signs of cervicitis. Meanwhile, in this study, cervicitis was more frequent in young girls with little or no formal education, which might be related to health seeking behaviour or irregular condom use. Furthermore, the data captured reveals that cervicitis appears more common in teenage sex workers who had been involved in the sex business for more than 12 months as against the purported less than 1 year commercial sex duration reported by Pe'pin et al., (2005) but was clearly in agreement with other claims in the same study where high usage of condom was recorded in Accra-Ghana by vast majority of the respondents (Table 4).

CONCLUSION

The incidence of cervicitis amongst teenage prostitutes has been confirmed in this study to be 18.23% of the prostitutes are below the age of consent. This portrays impending danger for the social and economic future of the country, as children regarded as the future of the country are being prostituted instead of having them in schools or in vocational training. Therefore, this study has provided invaluable information about the knowledge, prevalence and revelations behind practices of teenage commercial sex work.

RECOMMENDATION

1. Special efforts are warranted to improve the quality and quantity of resources, surveillance systems as well as prevention programs in order to reduce the activities of teenage girls plying their trade in the sex business.
2. Further research is needed on how interruptions in a sex work 'career' impact on vulnerability to cervicitis. What we do know is that transitioning in

and out of sex work renews the pool of TSW needing sexual health interventions and messaging, outreach, and screening for cervicitis.

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