# TIME OF SYMPTOMS TO HEALTH-SEEKING AMONG CERVICAL CANCER PATIENTS IN IBADAN, NIGERIA

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## ABSTRACT

**Background:** Early cervical cancer presentation has an excellent prognosis following treatment. Unfortunately most patients present with late disease that requires radical treatment with considerable morbidity and mortality.

**Aim:** This study examines factors associated with timeof cervical cancer presentation to a tertiary treatment centre in Nigeria.

**Methodolgy**: This is a descriptive study of one hundred and seventy-one patients managed for cervical cancer at the Obstetrics and Gynaecology Department of University College Hospital (UCH), Ibadan, Nigeria. The socio-demographic characteristics, presenting symptoms and number of visits to health care facilities before diagnosis were obtained. The data were analyzed by means of descriptive statistics, t-test and Chi square test.

**Results**: The mean age of the patientswas 56.5years. Of the patients, 60.7% had been to another health facility on the average of about 2 to 3 times prior to referral to UCHwhere final diagnoses were made. The average time interval between onset of symptoms and seeking of healthcare was 6.10 +/- 9.31 months, between seeking healthcare and referral to a UCH for eventual diagnosis was 9.35 +/- 12.9 months.While 36.3% of the patients presented in early stages of I – IIa, 63.7% presented in late stages of IIb – IV.

**Conclusions**: Patients' delay in seeking healthcare and care providers' delay in ensuring properfinal diagnosis are associated with late presentation in this study.Preventive and promotive health education to ensure early presentation, prompt and appropriate referral system, early and accurate diagnosis, when ensured, will reduce cervical cancer-related morbidity and mortality

**Keywords:** Symptoms' presentation, health seeking, cervical cancer, time, Ibadan

## INTRODUCTION

Cervical cancer is the number two cancer among women all over the world and one of the leading causes of cancer deaths in women in developing countries[1].It accounts for over 230,000 cervical

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cancer-related mortality every year[2]. However, like most cancers, cervical cancer is more easily treated if diagnosed early. Better still, if detected in its pre-cancerous state, treatment can lead to almost a 100% survival rate at five years[3]. It then means the unacceptable high mortality is due to late presentation and delays in diagnosis of this highly preventable cancer. In fact, 75% of cervical cancers are diagnosed at the late stages III/IVwith associated 5-year survival rates of just 47%[4] in developing countries. Achieving diagnosis at earlier stages may therefore improve survival rates as obtained in benchmark countries of the world.

In addition to ensuring well organized cervical cancer prevention programmes in developing countries, early-stage diagnosis is needed to complete the triad of prevention, treatment and control of cervical cancer. The early-stage diagnosis is reliant upon timely health-seeking bypatient and appropriate action by health care professionals[5]. This will involve appropriate assessment, investigations, treatment and referral when necessary. However, women do not always seek help on time nor do they always receive a timely diagnosis from health care personnel[6]. Patient's health-seeking behaviour is influenced by several factors which will include knowledge and understanding of the disease itself and the associated symptoms, severity of the disease condition, available treatment and possible outcomes, financial status and the type of health care settings.[7-10]Also, the social, cultural and religious environments competewith the formal health sector and these can form significant inhibiting or enabling factors.Failure to recognize the symptoms andtheir seriousness are important patient factors associated with delay in health seeking.[7,8,9,11] Apart from the effects of personal motivation on patients'recognition of symptoms of cervical cancer and their seriousness, similarity of some of the symptoms to other conditions prevalent in the

society can contribute to such misattribution[12,13]. Fear of cancer diagnosis is also an important contributing factor[10].

There has been recent effort to better characterize the health-seeking behavior among patients due to improving health knowledge globally[14]. There appears to be paucity of information regarding this generally and regarding specific disease conditions in sub-Saharan Africa and Nigeria in particular. Also, documentation of environment specific health-seeking behavior is necessary due to peculiarity of each setting. Factors influencing health-seeking behaviours may include availability and access to quality health care facilities, sociocultural status and pressures, androles of traditional medicine practice. Additionally, poverty and ignoranceare still prevalent in this region.

Thus this study aims to explore variables associated with delayed health-seeking for symptoms that may indicate cervical cancer. This is important in order to identify modifiable factors that could be targeted by interventions aimed at shortening thetime to health-seeking by cervical cancer patients and thus facilitate early presentation and possible improvement in treatment outcome. We interviewed patients presenting with cervical cancer about the symptoms, time and placeof first presentation for health care among others to calculate the time of first symptom to presentation for care and time to definitive diagnosis. Also, we examined the role of formal and informal health care system in delayed management of cervical cancer patients.

**METHODOLOGY**

This was a descriptive study of patients seen at the outpatient clinic theatre of Obstetrics and Gynaecology Department of University College Hospital, Ibadan, Nigeria between January 2009 and June 2010. University College hospital, Ibadan, Nigeria is the first teaching hospital in the country of

over 170 million inhabitants. Obstetrics and Gynaecology Department is one of the over 22 clinical Departments of the hospital with 5 units of Assisted Conception/Infertility, Fertility Research and Endocrine, Feto-maternal Medicine, Gynaecology Oncology and Genito-urinary and Urogynaecology. The hospital has specialized Pathology and Radiation Oncology Departments. An interviewer-administered questionnaire was used to obtain information regarding respondents' socio-demo- graphic characteristics, obstetric and gynecological history and the symptoms with which they present. To understand their heath seeking behaviour, we asked the patients about the time and placeof first presentation for health care to calculate the time of first symptom to presentation for care and time to definitive diagnosis. Also, we asked questions to understand the role of formal and informal health care system in delayed management of cervical cancer patients.Interviews were conducted by the trained resident doctors of the Gynaecology Oncology Unit. Questionnaires were edited daily by the Investigators. Data were entered using Epidata software (Epidata, Odense, Denmark) that ensured that skip patterns and other data entry checks could be enforced. Subsequently, data were processed and exported into SPSS software (v 16; SPSS Inc, Chicago, IL) for analysis. Summary statistics, such as means, frequencies, and percentages, were used to summarize variables. Chi square tests were used to testassociations between early presentationand other categorical variables.For this study, patients' delay is early when first presentation to any health facility is ≤ 6 months from onset of symptoms and late when ≥ 7 months,Level of statistical significance was set at 5%.Ethical approval was obtained from Ethical Review Committee of University of Ibadan / University College Hospital, Ibadan (UI/UCH) before commencement of the study.

## RESULTS

Socio-demographic Profiles of the Respondents

A total of one hundred and seventy –one eligible patients were interviewed during the study period. The mean age of respondent was 56.5 years (standard deviation [SD] = 1.41),the oldest respondent been 102 years.Currently married women accounted for 67.8% while 27.5% were widows. Sixty two (36.3%) never had formal education while 28.1%, 20.5% and 15.2 % had completed primary, secondary and tertiary education respectively. Majority of them (76.6%) contribute little or nothing to their household income. At the time of presentation, 43.7% of the respondents had 1to 7 children directly depending on them for up-keep which poses additional burden and the available resources for health care. The mean age of sexual debut was 20. 6 years (ranged 13-30years) with 57.3% of respondents having sexual debut before age 20years.Themodal number of pregnancies among the respondents was 7 (ranged between 0 and 12 pregnancies).Majority of respondents (88.9%) did not know their HIV status. Of those with known HIV status, only 2.3% were positive. Less than ten (9.4%) percent of respondent ever had screening test for cervical cancer.

## Health seeking behaviour

At the presentation in UCH where the final diagnosis and, subsequent, treatment was done, one hundred and fifty nine (93.0%) have been to a hospital and twelve (7.0%) have consulted traditional/faith centres when they noticed symptoms. It took 61.4% of the respondents more than 6months from symptoms to health seeking. This group constitutes the patients with delayed health seeking behavior. Of the 159 that had presented to formal health care facilities, 46.50% presented once or twice while 53.4% presented three or more times prior to suspicion of cervical cancer necessitating referral or

self- presentation in UCH for treatment. This later group constitutes the providers delayed health seeking group. During such visits they were treated for various conditions like menstrual irregularities, vaginal discharges, pelvic inflammatory diseases among other non-specific conditions.

At presentation in UCH examination under anaesthesia, clinical staging and biopsy, 74.4% of the patients were in advanced stages of IIb (26.1% ), 27.3%in stage IIIa,18.0% in stage IIIb, 3.0% in stage IVa and no case in stage IVb) while 25.6% were diagnosed with early cervical cancer. (Table1). The histology of the cervical biopsy specimens showed that 77.2% were of squamous cell types, 10.5% were adenocarcinoma cell types. 8.2% were of adenosquamous cell types with 4.1% classified as others and these include those of endometrial adenocarcinoma with cervical extension, small cell carcinoma variants end those of neuroendocrine cell types.

**Predisposing factors**

Analysis of predisposing factors to cervical cancer in the respondent showed that 57% of the respondents had their first sexual experience between the ages of 13 and 20 years with 52.6% of these having first pregnancy before the age of 20 years. More than half (55.6%) of the respondents have had 2-5 lifetime sexual partners. *Ninety-eight percent*of the respondents were multi-parouswith parous experience of up to 12 in some of the respondents. Cervical cancer screening history among this cohort showed that 90.6% of them have never had Pap's smear test or any other form of cervical cancer screening. Almost the entire sample (98.8%; n=169) never used tobacco.Four (21.1%) of the only 19 respondents with known HIV status were sero-positive.

**Presenting symptoms**

One hundred and nine (63.7%) of the patients presented at the point of final diagnoses in advanced stage of disease.Coitus-related bleeding per vaginam was the commonest symptom at presentation and occurred in 55.9% of the patients. Other presenting symptoms were unprovoked bleeding per vaginam (8.6%), lower abdominal pain (21.6%) and offensive vaginal discharge (48.83%) . All those who presented with unprovoked bleeding vaginam were in the early presenter group. About 10.9% of the patients presented on referral from cervical cancer screening programmes, family planning clinics or following incidental findings on presentation for other medical conditions like urinary incontinence or swollen legs.

**Risk factors for patients' health seeking behaviour**

The association between selected risk factors and patient's health seeking behaviour is summarised in Table 3. Even though the mean age of late presenters (57.3+14.0 years) was slightly greater than those of early presenters (55.1+14.3 years) the difference did not attain statistical significance (p=0.775). Similarly, educational status was not associated with timing of presentation as similar proportions across the four levels of education either presented early or late. There was no difference in late presentation between those who contribute to family finance (38.1%) and those who do not (40.4%). Number of dependent children was also not associated with timing of presentation. Unprovoked bleeding per vaginam was more common among early presenters than in late presenters (p=0.013). Likewise, there was a preponderance of coitus-related bleeding per vaginam among those who presented early (p=0.694). In contrast, lower abdominal pain and offensive vaginal discharge was more prevalent among late presenters though not statistically significant.

**DISCUSSION**

This study showed that patients with cervical cancer still present in advanced stages in our environment.

At presentation for examination under anaesthesia, clinical staging and cervical biopsy, 36.3% and 63.7% of the respondents were in early and late stages, respectively. This preponderance for late stage presentation have been shown to negatively impacts on the outcome of management of the condition as treatment is more effective in early stages of the disease[2]. Late stage presentation by women with cervical cancer has been attributed to factors such as inadequate knowledge and lack of effective screening strategy[15,16].Despite deserving great public health attention, effective prevention programmes for cervical cancer control are almost totally lacking in most low-resource, high-risk developing countries. In developing countries, majority of cervical cancers are diagnosed in advanced stages with poor prospects for long-term survival and cure[16,17,18].The cost to the state health system is far greater than it would be if women were screened and treated early. The cost of treating a later stage cervical cancer,which involves surgery, radiation or chemotherapy or a combination of these modalities, is never cost-effective. In contrast, late stage presentation in developed countries is common amongpatients without insurance or those underinsured[19,20]. This issue can only be addressed through raising public awareness on the signs and symptoms of the disease and the need for early treatment.

Early presentation and diagnosis of cancer is a priority, both for good treatment outcome and policy [21]. While presentation to the health care professional begins the process of diagnosis and treatment, this must be preceded by recognition of the symptoms and subsequently seeking help. This must be done promptly to achieve the desired good outcomes. In this study, we have defined patients' delay as early when first presentation to any health facility is ≤ 6 months from onset of symptoms and late ≥ 7 months, delays of more than 3 months of onset of symptoms prior to health seeking have been shown to be associated with poorer prognosis [22,23] In this study, 61.4% of the patients presented at the first health facility after 6 months of the onset of symptoms. A more intrusive symptom such as abnormal bleeding per vaginam have been found to be associated with shorter delays in presentation [24,25]. This is the case in our patients as all the nine patients with unprovoked bleeding per vaginam significantly presented in the early stages of cervical cancer and coitus-related bleeding per vaginam was the commonest presentation found, generally, among the patients. There have been other recognized reasons for delayed health seeking among cancer patients which included fear, difficulty in negotiating logistics of our health system, embarrassment, competing priorities [26,27] and dependence on traditional health care practices [28]. In this study, 12.9% of the patients have been to traditional health practitioners several times, in addition to formal health care settings, prior to presentation at our centre. This is not surprising as this is a common finding in developing countries where alternative health care practiotioners now form major competitors for the orthodox health care practitioners [29].

Provider delays in diagnosis and/or referral was unacceptably visible among these patients. Eighty-five (53.4%) of the patients had been to the other health facilities 3 or more times prior to referral to the institution were final diagnoses were made. While many studies have not found conclusive evidence for health care provider delay in diagnosis and referral of cervical cancer patients, failure to examine or visualize the cervix, suspicion of other benign genital lesions or co-existing genital infection are some of

the factors that have been found by some other authors[25] . A number of reasons have been adduced for health care provider delays in care of cervical cancer patients such as access to services, education and competence level of health care providers, strength of existing health care system and prevailing policy and opportunities like health insurance. In many developing countries, many health care facilities that serve as the first point of health seeking for cervical cancer patients are managed by health care workers with basic trainings and lack competency on gynaecological examination and knowledge on cervical cancer screening and detection [30]. With such low level of competence, the tendency is for gynaecological examination not to be performed in cervical cancer patients with no intrusive symptoms like vaginal bleeding leading to late diagnosis.

The import of the findings from this study is the demonstration of health personnel-related factors in the delayed presentation of cervical cancer patients in addition to the age long known patient-related factors. However, the results here were based on patients' account necessitating the need for further study into the information obtained during this study. The mean age of the patients was 56.50 years which is similar to previous reports from Nigeria[3,12] and other parts of sub-Saharan Africa[4,8]. This mean age is earlier than that at presentation in developed countries and has been attributed to the earlier age at marriage and thus sexual exposure in this environment[12]. This is supported by the findings from this study in which 57.3 % of respondents had sexual debut before the aged 20years, a recognized risk factor for the development of cervical cancer. Other associated risk factors that were present in our cohort included high parity (mean = 6.7) and low contraceptive prevalence of 27.7% for ever useof any contraception and 7.0% for ever use of barrier

method (condom), multiple sex partners with 55.6% responding to have had multiple sex partner .Similar risk factors were reported in earlier studies[9,12] and highlight the need for well-designed public awareness campaignson the roles of these risk factors in the aetiopathogenesis of cervical cancer and preventive measures.

Cancer of the cervix remains a disease of paranoids. It remains deadly, yet highly preventable cancer. This study has shown that patients' delay in seeking healthcare and health care providers' delay in prompt diagnosis and referral are major contributors to the prevalent late presentation currently seen in these patients. Delays in diagnosis remain a major issue in cancer prevention. While the patients'delay is of crucial importance, health care provider delays are equally important. In view of the increasing evidence that delay adversely affects survival, health education specifically about cervical cancer, the symptoms and the need for early health  seeking practices, enhancing the health care providers'capacity for early recognition of cervical symptoms, appropriate and thorough examination practices and establishing strong referral system with functioning population cancer registry will facilitate timely diagnosis and treatment of the patients with the attendant improvement in outcomes. Further research, especially qualitative studies, are needed to fully understand other confounding factors like emotional, cultural and economic issues contributing to patients' delay in seeking health care in our environment

**Table 1:** Selected Background Characteristics Of The Cervical Cancer Patients

| Age (years) | Frequency | Percentage |
|---|---|---|
| 20 -29 | 2 | 1.2 |
| 30 – 39 | 14 | 8.2 |
| 40 – 49 | 39 | 22.8 |
| 50 – 59 | 41 | 24.0 |
| 60 – 69 | 45 | 26.3 |
| = 70 | 30 | 17.5 |
| **Educational status** | | |
| None | 62 | 36.3 |
| Primary | 48 | 28.1 |
| Secondary | 35 | 20.5 |
| Tertiary | 26 | 15.2 |
| Coitarche (years) | 13 | 7.6 |
| =15 | 85 | 49.7 |
| 16 -20 | 61 | 35.7 |
| 21 – 25 | 12 | 7.0 |
| = 26 | | |
| **Marital status** | | |
| Single | 3 | 1.8 |
| Separated | 5 | 2.9 |
| Married | 116 | 67.8 |
| Widowed | 47 | 27.5 |
| **Parity (Modal Parity = 7)** | 20 | 11.7 |
| 0 – 2 | 44 | 25.7 |
| 3 – 4 | 107 | 62.6 |
| = 5 | | |
| **Contraceptive History** | | |
| Never use | 124 | 72.5 |
| Ever use | 47 | 27.5 |
| IUCD | 10 | 21.3 |
| Condom | 12 | 25.5 |
| Combined oral | 12 | 25.5 |
| contraceptives | 13 | 27.7 |
| Injectables | | |

**Table 2:** Patients and providers delay in health seeking for cervical cancer care/treatment

| | Frequency | Percentage |
|---|---|---|
| **Stages at presentation** | | |
| Early (stages I – IIA) | 62 | 36.3 |
| Late (stages IIB – IV) | 109 | 63.7 |
| **Symptom to presentation at Health facility (Patient delay)** | | |
| Patients duration of symptoms = 6 months | 66 | 38.6 |
| Patients duration of symptoms = 7 months | 105 | 61.4 |
| **Presentation to Diagnosis (Provider delay)** | | |
| Number of visitation to provider prior to diagnosis = 2 times | 74 | 46.5 |
| Number of visitation to provider prior to diagnosis = 3 times | 85 | 53.4 |

**Table 3:** Factor associated with patients' health seeking behaviour

| Factors | Early presentation | Late presentation | Test of significance p-value |
|---|---|---|---|
| 1. Age (mean age) | 55.06±14.27 | 57.31± 14.03 | 0.775 |
| 2. Educational status | | | |
| a. None | 40 (65.6) | 21 (34.4) | |
| b. Primary | 26 (54.2) | 22 (45.8) | 0.497 |
| c. Secondary | 23 (65.7) | 12 (34.3) | |
| d. Tertiary | 16 (61.5) | 10 (38.5) | |
| 3. Socio-economic status | | | |
| a. Contribution to family finance (0-1) | | | |
| 1. Yes | 99 (61.9) | 61 (38.1) | |
| 2. No | 6 (60.0) | 4 (40.4) | 0.906 |
| b. Number of dependent children (0-5) | | | |
| a. 0 | 57 (59.4) | 39 (40.6) | |
| b. 1 | 9 (52.9) | 8 (47.1) | |
| c. 2 | 15 (78.9) | 4 (21.1) | 0.518 |
| d. 3 | 14 (63.6) | 8 (36.4) | |
| e. 4 | 10 (58.8) | 7 (41.2) | |
| 4. Presenting symptoms | | | |
| a. Unprovoked bleeding per vaginam | | | |
| Yes | 9 (8.6) | 0(.0) | |
| No | 96 (91.4) | 66 (100) | 0.013* |
| b. coitus-related bleeding per vaginam | | | |
| Yes | 20 (19.0) | 11 (16.7) | |
| No | 85 (81.0) | 55 (83.3) | 0.694 |
| a. lower abdominal pain | | | |
| Yes | 18 (48.6) | 19 (51.4) | |
| No | 87 (64.9) | 47 (35.1) | 0.072 |
| b. offensive vaginal discharge | | | |
| Yes | 40 (38.1) | 32 (48.5) | |
| No | 65 (61.9) | 34 (51.5) | 0.180 |

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