(RESEARCH ARTICLE)

Knowledge and perception towards cervical cancer among female at reproductive age attending gynaecological clinic at Tumbi Referral Regional Hospital, Tanzania

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Abstract

Background: Cervical cancer is a global public health problem. Risky behaviors, lack of knowledge and preventative measures in reproductive age women, increase the risks of cervical cancer later in life. Up to date, there is scarcity of study on level of knowledge and perception towards cervical cancer among reproductive age women in Tanzania. So, this study was aimed to determine the level of knowledge and perception toward cervical cancer among reproductive age female attending Gynaecological Clinic at Tumbi Referral Regional Hospital, Tanzania.

Method: A facility based cross-sectional study was conducted using self-administered questionnaire among reproductive age female attending Tumbi Referral Regional Hospital, Tanzania in July2018. The questionnaire included specific sections to test the participant's knowledge and perception related to cervical cancer. Data analysis was done using descriptive statistics.

Results: One hundred and eighteen (85.5%) of the study participants had knowledge of cervical cancer. Of the participants, 93(67.4%) knew HPV as cause of cervical cancer but only 107 (77.5%) had knowledge on mode of transmission of cervical cancer, 84(60.9%) of the study participants had knowledge of symptoms of cervical cancer, only 47(34.1%) knew multiple sexual partners is a risk factor of cervical cancer and 53(38.4%) knew prevention method is to avoid multiple sexual partners. 135(97.8%) perceived screening helps in prevention of cervical cancer.

Conclusions: The level of knowledge towards cervical cancer and perception of acquiring the disease was good. Health education interventions are needed to improve the awareness and health seeking behavior in women thereby preventing cervical cancer related morbidity and mortality.

Keywords: Cervical cancer; Knowledge; Perception; Tumbi Hospital; Tanzania

1 Introduction

Cervical cancer is a cancer of the cervix, the organ connecting the uterus and the vagina. It is mainly caused by human papilloma virus (HPV) which is a sexually transmittable infection. There are several common risk factors recognized to be associated with cervical cancer worldwide include sexually transmitted diseases (mainly HPV and herpes simplex virus), reproductive and sexual factors (multiple sexual partners, early age at the first sexual intercourse, early age at first delivery, parity, and oral contraceptive pills), behavioral factors (smoking and obesity), and host factors (genetic sensitivity) [1]. Abnormal vaginal bleeding, foul smelling vaginal discharge, and contact bleeding are recognized as the major signs of cervical cancer, and in many cases, women with cervical cancer report no symptoms. Almost all cervical cancers are caused by HPV, therefore, effective interventions on prevention of HPV infections can prevent cervical cancer [2].

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Globally cervical cancer ranks third most common form of cancer among women after breast and colorectal cancer [3]. The women of poorer communities are most affected by the disease. Previous studies have shown that, about 83% of the world's new cases and 85% of all cervical cancer deaths reported are from developing countries [2]. During the past decades cervical cancer has decreased in developed countries [4]. This is mainly due to increased awareness and more effective screening and prevention strategies employed in these developed countries [5]. The HPV vaccine has contributed to a decline in the incidence rate of cervical cancer [6]. There are three types of tests available and widely used for the screening of cervical cancer. These include tests for HPV, cytology-based Papanicolaou test (Pap test), and unaided visual inspection with acetic acid (VIA) [7]. However, public awareness of these tests in developing countries is limited [8]. Cervical cancer is preventable and, in most cases, curable, if identified in its early stages. Knowledge about early signs and symptoms is crucial for early diagnosis and treatment. Though preventable and curable, most women in developing countries including Tanzania presents at an advanced stage that requires extensive treatment modalities like surgery, radiotherapy, chemotherapy and has markedly diminishes chance of success [9].

In Tanzania women with cervical cancer are diagnosed at late stages when curative treatments are no longer possible. Since 2002, the Tanzanian Ministry of Health, Community Development, Gender, Elderly and Children has collaborated with the WHO, the International Agency for Research on Cancer, the International nonprofit Jhpiego, and numerous other local and international NGO partners to scale up cervical cancer prevention efforts for Tanzanian women [10]. Service delivery Guidelines for Cervical Cancer Prevention Services, the use of visual inspection and cryotherapy is the secondary prevention approach that has been widely implemented in Tanzania [10]. This secondary prevention strategy for cervical cancer is a recommended strategy by the WHO for cervical cancer prevention in low resource settings [11].

Therefore, this study aimed to determine the level of knowledge on sign and symptoms, risk factors and the preventive measures of cervical cancer and its associated factors among women attending Gynaecological clinic at Tumbi Referral Regional Hospital, Tanzania. Findings of this study could help to provide evidenced information to health authorities and other stakeholders in order to design interventions that can reduce the incidence and mortality of cervical cancer.

2   Material and methods

2.1   Study site

This study was conducted at Tumbi Referral Regional Hospital located at Kibaha District Council, Coast Region. The district is among the 5 districts of Coast Region (Fig.1). The other districts are Bagamoyo, Mkuranga, Kisarawe and Rufiji. The regional capital is the town of Kibaha. The Region borders the Tanga Region to the north, Morogoro Region to the west, Lindi Region to the south, and surrounds Dar es Salaam Region to the east. The Indian Ocean also borders the region to its northeast and southeast.

Figure 1 Map of Coast Region showing its districts

2.2   Study design

A descriptive cross-sectional study design was employed, in which data was collected at a single point in time using questionnaires consisting of particulars of the participants, assessing knowledge and perception regarding cervical cancer among female attending Gynaecological Clinic at Tumbi Referral Regional Hospital, Tanzania. The study was carried out in July 2018.

2.3   Study population

The study population included all female attending Gynaecological Clinic at Tumbi Referral Regional Hospital, Tanzania.

2.4   Sample size determination

Sample size was calculated using Kish Leslie formula.

$$N = (Z^2 \, p(1 - p)/D^2$$

N = Total number of subjects required in the sample
Z = A standardized normal deviation value that correspond to a level of statistical significance equal to
P = Estimate of prevalence 10%
D = Marginal error which corresponds to the level of precision of the results desired
Z = 1.96, p = 10%, D = 0.05

Therefore,

$$N = 1.96^2 \times 0.10 \, (1 - 0.10)/0.05^2 = 138$$

Therefore, sample size is 138

2.5   Sampling Technique

Female aged (14-49) years were involved in the study. To ensure appropriate and equal representation from each age group of female, proportionate sampling method according to the age group was adopted to drive a sample with equal representation 35 females for each age group (3 groups) and 33 females for one group making a total of 138 females. The participants were randomly selected from each age group. The females were approached on random basis from each age group. The total sample size was determined to be 138.

2.6   Data Collection

The data collected by structured guided questionnaires. The questionnaire prepared in English and translated into Swahili to maintain the consistency and content of the questionnaire, confidentiality of information, participant's rights and voluntarily informed consent were secured. The participants were asked the questions and their answers filled in the questionnaire by the researcher.

2.7   Data analysis

Questionnaires filled with irrelevant information were removed. The data from questionnaires with relevant information were analyzed with Statistical Package for Social Sciences (SPSS version 20).

2.8   Inclusion criteria

 All female of reproductive age who were willing to participate in the study.

2.9   Exclusion criteria

All female of reproductive age who were unwilling to participate in the study.

2.10   Ethical consideration

Permission to conduct the study was obtained from the research committee of Kampala International University of Tanzania while permission to use participants in Tumbi Referral Regional Hospital was sought from the Regional Administrative Secretary and Medical Officer Incharge of the Hospital. Confidentiality: all research documents and information were treated as confidential.

3   Results

3.1   Socio-Demographic Characteristics of the participants in the study

A total of 138 participants were involved in this study. The age range of the participants was between 14 – 49 years. The majority of the participants 44 (31.9%) were of age between 32-41 years, 38(27.5%) were 23-31 years, 33(23.9%) were 42-49years and 23 (16.7%) were 1422years. Marital status, 74(54.0%) were married, 28(20.0%) were single, 16(%) were cohabiting,13(9.4%) was divorced, and 7(5.0%) were widow. Education level 5 (3.6%) had neverattended,72(52.2%) had primary level, 54(39.1%) had secondary level and 7(5.1%) had college/University level. Occupation; housewife 41(29.7%), employed 63(45.7%) and self employed 34(24.6%). The participants in this study were female at reproductive age 138 (100.0%) as shown in Table 1.

Table 1 Socio-demographic Characteristics of Female Participants at Tumbi Referral Regional Hospital

Variable	Frequency	Percentage
Age (in years)		
14 -22	23	16.7
23 – 31	38	27.5
32 – 41	44	31.9
42 - 49	33	23.9
Marital status		
Single	28	20.0
Married	74	54.0
Divorced	13	9.4
Cohabit	16	11.6
Widow	7	5.0
Education		
Never attended	5	3.6
Primary	72	52.2
Secondary	54	39.1
College/University	7	5.1
Occupation		
Housewife	41	29.7
Employed	63	45.7
Self employed	34	24.6

3.2   Participant's knowledge about cervical cancer

In this study the majority of participants were informed about cervical cancer 118(85.5%). Regarding etiology of cervical cancer 93(67.4%) mentioned HPV, mode transmission 107(77.5%) mentioned sexual intercourse, symptoms and signs 84(60.9%) mentioned foul smelling vaginal discharge, risk factors of cervical cancer 47(34.1%) mentioned multiple sexual partiners, prevention methods 53(38.4%) mentioned avoid multiple sexual partiners as shown in Table 2.

Table 2 Knowledge of Female Towards Cervical Cancer

Variable	Frequency	Percentage
Information on cervical cancer		
Ever heard	118	85.5
Never heard	20	14.5
Etiology of cervical cancer		
HIV	33	23.9
HPV	93	67.4
Genetics	12	8.7
Mode of transmission		
Mother to child	6	4.4
Family history	9	6.5
Sexual intercourse	107	77.5
Do not know	16	11.6
Symptoms of cervical cancer		
Foul smelling vaginal discharge	84	60.9
Pain during sexual intercourse	27	19.6
Bleeding during or after sexual intercourse	13	9.4
Itching	9	6.5
Do not know	5	3.6
Risk factors of cervical cancer		
Having many sexual partners	47	34.1
Early sexual debut	31	22.5
Husband's polygamy	11	7.9
HIV and other STIs	16	11.6
Long time use of pills	13	9.4
Multiparity	17	12.3
Do not know	3	2.2
Prevention methods		
Screening	13	9.4
Vaccination	14	10.1
Delayed early sexual debut	47	34.1
Avoid having multiple partiners	53	38.4
Do not know	11	8.0

3.3 Participant's perception towards cervical cancer

In this study participant's perception about cervical cancer 118(79.7%) believed that cancer of the cervix is a leading cause of deaths amongst all malignances for women, 138 (100.0%) believed that any woman can acquire cervical cancer,

120(86.9%) believed that cancer of the cervix cannot be transmitted from one person to another and 135(97.8%) believed that screening helps in prevention of cancer of the cervix as shown in Table 3.

The majority of participants showed agreement for all the statements in this section (Table 3)

Table 3 Participant's perception towards cervical cancer

Variable	Frequency	Percentage
Cancer of the cervix is a leading cause of deaths amongst all malignances for women		
Yes	110	79.7
No	28	20.3
Any woman including you can acquire cervical cancer		
Yes	138	100.0
No	0	0
Cancer of the cervix cannot be transmitted from one person to another		
Yes	120	86.9
No	18	13.1
Screening helps in prevention of cancer of the cervix		
Yes	135	97.8
No	3	2.2

4   Discussion

This study measured knowledge and perception towards cervical cancer among female of reproductive age (14-49) years attending Gynaecological Clinic at Tumbi Referral Regional Hospital, Tanzania. The study indicated that most of the participants 31.9% were of the age between 32-41 years, 54.0% were married, 52.2% had primary education and 45.7% were employed. The study is in consistence with previous studies done sub-Saharan countries which showed that older women and women with higher education level had better knowledge of risk factors of cervical cancer [12]. However, in the present study the majority of women who had primary education had good knowledge this could be because Tumbi Referral Regional Hospital is located at the Regional Headquarters of Coast Region hence many women follow good service because of good facilities and the hospital has many specialists. Second, it shows that the coverage of health education on cervical cancer in Kibaha District is good.

In the present study 85.5% of the participants had heard cervical cancer. The results in the present study agrees with the study done in Magu Tanzania which showed 83.1% of women were aware of cervical cancer but the present results is higher than the results of the studies done in Ethiopian women which showed to be 78.7% and 29% Kenyan women [13]. In the present study the results shows 95.7% early sexual intercourse, and 83.3% HPV infection placed a woman at risk for cervical cancer. This results are higher than the results of studies conducted in Uganda and Adis Ababa, Ethiopia which showed to be 55.0% and 64.8% respectively [14]. This variation of results indicates that health education on cervical cancer in Tanzania is well implemented. Hence, knowledge of women about cervical cancer prevention is high in this region. In the present study, 60.9% had knowledge of symptoms of cervical cancer, this result is higher than the results of a study done in Ogun state, Nigeria [15] which showed 97.9% had poor knowledge symptoms of cervical cancer.

In this study, was found majority of the participants had good perception 79.7% cancer as the leading cause death among women, 100% any woman can acquire cervical cancer, 86.9% cervical cancer cannot be transmitted from one person to another and 97.8% screening helps prevention of cervical cancer. The results of this study shows good coverage of health education on cervical cancer in Tanzania.

5   Conclusion

The result obtained in this study indicates how useful it will be to strengthen health education programs to increase women's awareness and knowledge about cervical cancer. Health education interventions are needed to improve the understanding of the factors that increases the risk and the prevention methods of cervical cancer in women and decrease the incidence of the disease. Government and non-governmental organizations should work in collaboration in improving knowledge of cervical cancer and screening among women.

Compliance with ethical standards

Disclosure of conflict of interest

There is no competing interest.

Statement of ethical approval

In this study no animal or human material was used. The only study tool used to collect data was questionnaire. However, ethical clearance was obtained from the respective authorities to conduct the study. The research committee of Kampala International University Tanzania, Regional Administrative Secretary Coast Region and Medical Officer Incharge Tumbi Referral Regional Hospital gave permission the study to be conducted.

Statement of informed consent

Written informed consent was obtained from all participating women who consented to the study, records were coded and participants/ Researcher names were not used. All the information collected remained confidential and was used for purposes of the study only. Participation was voluntary and no incentives were given.

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