Cervical Cancer Screening among Patients Receiving ARVs in a Resource-Limited Environment

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Cervical Cancer Screening among Patients Receiving Antiretroviral Treatment in a Resource-limited Environment

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Background

Global burden of cervical cancer at a glance

Pathophysiology of HIV and cervical cancer

HIV prevalence and cervical cancer incidence

Objectives

- Evaluate the uptake of cervical cancer screening of women receiving ARV treatment in HIV Care and Treatment Center (CTC), Dodoma, and to identify the characteristics of patients who were screened.
- Examine the willingness to be screened for cervical cancer by women receiving ARV treatment at HIV CTC.
- Determine factors associated with the willingness to be screened and the uptake of cervical cancer screening among women receiving ARV treatment in Dodoma.

Study population

- The mean age of the population was 44.18 years (range 18-80 years old).
- The majority (n=372, 89%) of the participants had a primary education or higher.
- Average monthly income was $39.45 ($US dollars, $32-200). The majority (n=306, 85%) of the participants have no regular monthly income.
- Most (n=295, 79%) of the subjects were unmarried, they were either never married (n=16, 16), divorced, widowed, or separated (n=227, 54).
- A total of n=137 (35%) have at least three live births; 94% (357) had sexual intercourse at ages younger than 18 years.
- The mean length of HIV infection since diagnosis was 5.4 years. Most of the participants (n=140, 33%) have been diagnosed as having HIV at least 0-2 years ago.

Findings

Table 1: Predictors of awareness of CxCa (n=419)

Table 2: Factors associated with prior uptake of CxCa screening (n=306)

Table 3: Factors associated with willingness to screen among those aware (n=257)

Findings

- Good treatment outcomes among participants was observed based on the BMI and disease progression of the participants (Fig 1).
- Prior uptake of cervical cancer screening was observed despite high level of awareness (Fig 2). This was observed in a similar study in Dar es Salaam (Lukorito et al. 2017).
- Awareness of cervical cancer were higher among urban dwellers and patients age 30-39 compared to other age groups (18-29 and ≥ 40) (Table 1).
- Prior uptake of screening was higher for urban dwellers vs. rural dwellers and women with 1-2 livebirths vs. no live births (Table 2). This was validated by a similar finding in Nigeria (Nwankwo et al., 2011).
- Participants who were recently diagnosed of HIV were more likely to be willing to screen compared to those diagnosed longer (Table 3). Similar findings was observed in Nigeria (Ezechi et al., 2013).
- Willingness to screen was found higher for younger participants vs. older participants (Table 3).

Discussions

- Possibility of interview bias
- Different approaches to data collection was not specified during data collection
- Access to screening

Conclusion and Future Directions

- 90% of patients in this study receiving antiretroviral drugs (ARVs) for HIV expressed willingness to participate in cervical cancer screening
- Although willingness was higher among younger than older participants
- The older patients should be targeted when strategizing prevention plans and education.
- We recommend additional education for both patients and providers on cervical cancer
- Integration of cervical cancer screening services at the HIV clinic

Methods

Study Design

This is a cross-sectional study. A study questionnaire was developed based on previous studies (Ezechi et al., 2013; Gebahun et al., 2013, and Shabani et al., 2014).

Inclusion criteria

The study population included all women diagnosed as HIV positive and attending the HIV CTC in Dodoma Regional Referral Hospital (DRRH). Women older than 17 years and younger than 51 years old were eligible because cervical cancer screening services are only available for individuals within this age range (18-50) in Tanzania.

Exclusion criteria

Patients who were traveling through Dodoma and needed to visit HIV CTC DRRH for refills were described as patient in transit and were excluded from the study.

Data collection

Data were collected for a period of 3 weeks from July 21 to August 11, 2017. The questionnaires were designed on an Open Data Kit (ODK) using a platform called Kobo Toolbox (Heunis et. al., 2014).

Statistical analysis

- A total of 421 women participated in the study. Statistical software used was SAS 9.4
- The outcome variables used in the analysis were:
  - Awareness: Prior uptake of cervical cancer screening
  - Willingness to screen: Associations between the participant characteristics and the outcomes were determined using Pearson chi-square or Fischer exact test
  - Factors with p value<=0.2 were included in a logistic regression model
  - Model fit was determined using Hosmer-Lemeshow goodness of fit.

Findings

- Women who were recently diagnosed of HIV were more likely to be willing to participate in cervical cancer screening (Fig 1).
- Examine the willingness to be screened for cervical cancer by women receiving ARV treatment at HIV CTC.
- Determine factors associated with the willingness to be screened and the uptake of cervical cancer screening among women receiving ARV treatment in Dodoma.