

**FAMILY ROLE AND CAUSES OF DELAY IN SEEKING TREATMENT BY
CERVICAL CANCER PATIENTS AFTER DIAGNOSIS IN DAR ES SAALAM,
TANZANIA**

ELVIS S. ARIGA¹
PHARES G.M. MUJINJA¹

¹Muhimbili University of Health and Allied Sciences, P.O. Box 65001, Dar ES Salaam, Tanzania

Abstract

Cervical cancer is a serious disease among women in Tanzania. A quantitative cross sectional study was conducted to determine source of information and knowledge on health seeking behavior of cervical cancer patients in Dar salaam, Tanzania. Data was collected, entered and analyzed using SPSS 20.0. The relationships between variables and outcome were determined by Chi-square test, Odds ratio and Multivariate logistic regression at $p < 0.05$. Barriers resulting in delay to seek medical treatment included; economic constraint, long distances, and cultural belief that cervical cancer will heal on itself, stigma and discrimination and seeking help from traditional healer. Multivariate regression analysis showed that age, marital status, occupation and advice from family members were significantly associated with inducing utilization of health facilities among cervical cancer patients. There is need for men and family involvement in decision to seek medical treatment to help motivate women to seek early cervical cancer treatment.

Keywords: family role, delay, cervical cancer patients, treatment, Tanzania

Introduction

Cervical cancer is a major disease burden and the highest gynecological malignant in developing countries (Holschneider, 2007 and Mosha, 2009). It is characterized by uncontrolled growth and spread of abnormal cells that arise from the cervix (American Cancer Society, 2010). The incidence of cervical cancer is very low in women under age of 25 years but increases at age of 35-40 years (Anorlu, 2008). Mangoma, 2006 cited lack of knowledge about the need and importance of screening, poor social marketing of the local screening programs, lack of resources, men's failure to support their partners and shyness as the major delaying factors to screening.

A number of factors contribute to low turn up in seeking treatment among cervical cancer patients. These factors include social-economic factors (Kerubo, 2011 and Mutyaba, 2006), limited knowledge on symptoms and signs, limited financial resources, limited

accessibility and unavailability of screening facilities (Eleanor *et al*, 2012), lack of anti-cancer medicines and diagnostic machines (Frida, 2012), health system factors (Kristin, 2011; Mutyaba, 2006), socio-cultural, demographic, infrastructure, knowledge, attitude, belief, access, time and cancer stages (Samur, 2002). Individuals play an important role in understanding the illness, selecting appropriate treatment, protecting their health and taking appropriate action to adopt healthy behavior to seek medical treatment (Nene, *et al.*, 2007). Seeking medical treatment is based on individual's decision-making; however, some patients depend on the doctor or spouse to seek medical treatment (Bastiaen, 2007). Spouses/partners involvement in decision to seek health care were found to significantly influence an individual's role to utilize and seek medical treatment (Bradley, *et al.*, 2004). The findings were consistent with a similar study conducted in India which found out that the key role in a woman's decision to seek treatment is her husband's positive emotional support (Nene, 2007). Women may fail to seek screening services because their male sexual partners may oppose to a male provider giving the examination, making patients' role in seeking medical treatment insignificant (Lazcano-Ponce, 2002).

Need for the study

The magnitude of cervical cancer in Tanzania is high contributing to 6000 deaths annually among women of all sub-ages (WHO, 2010).

One of the reasons for the high incidence rate is the lack of early detection of precancerous lesions and treatment of the lesions before they progress (Anorlu, 2008).

There is no significant time set for cervical cancer patient to seeking treatment after diagnosis; however, several studies have recommended that treatment delays greater than 90 days may be associated with stage migration (Winkler, 2010).

Delay in treatment of cervical cancer lowers the effectiveness of most treatment and considerable increase in the cervical cancer death rates (James, 2010).

Objectives

1. To determine how family induce individuals to seek treatment of cervical cancer
2. To identify the main reasons for delay in seeking treatment among cervical cancer patients

METHODOLOGY

Research area and design

The study was done at Ocean Road Cancer Institute (ORCI) in Dar Es Salaam, located along the Indian Ocean in Ilala Municipality. The study employed a cross sectional explorative design.

Study population, sample size and sampling

The study population comprised of women either inpatient or outpatient with new proven cases of cervical cancer treated at ORCI from January to April 2015.

The sample size n was obtained using the formula developed by Cochran (2006) for populations that are large. $n = [Z^2 P (100- P)]/E^2$; Where: n = minimum sample size to be estimated; Z = critical value of the standard normal distribution for the 95% confidence interval around the true population (1.96); P = Proportion of utilization of treatment among cervical cancer patients (86.5%) according to a study by OCRI, Tanzania, (2014); E = margin of error (5%). Hence, $n = [1.96^2*86.5(100-86.5)]/5^2$ resulting in 179 households plus a non response of 10% giving a total of 197 households. In a month about 25-36 cervical cancer patients are seen. All in-patients and outpatients who came for treatment within the study period were included until the sample size was obtained.

Data collection and ethical issues

Quantitative data was collected during face to face interviews with respondents using semi structured closed ended questionnaires. Pre-testing of the instrument was conducted to test for clarity of the questions and where necessary questions were modified to achieve the desired outcome of the study. Ethical issues involved clearance from Research and Publication Committee of Muhimbili University of Health and Allied Sciences and authorities of Ocean Road Cancer Institute. Interviewee consent was acquired and respondents were assured of non disclosure of identity.

Data analysis and presentation

Data was cleaned, entered in excel and analyzed using SPSS (20.0). Associations between dependent and independent variables were assessed by Chi-square test and Odds ratio. Multivariate logistic regression model (Table 6) was used to determine variable that significantly contributed to the outcome (Access to care). Significance level was set at $p < 0.05$. Data was presented in frequency and percentage tables.

RESULTS

Socio-demographic characteristics of household members

A total of 197 new cases of women, with cervical cancer, aged 30-89 years participated in the study. The respondents mean age was 50 years (SD ± 11) with a large proportion (37.1%) of them aged 40-49 years old, followed by 50-59 years (29.4%). Only 6.1% were 70 years and above (Table 1). Most respondents (62.9%) were married while 18.3% were divorced or separated. Those widowed were 15.7% and 3% never married (Table 2). Majority of respondents (49.2%) had primary education followed by those with formal education (32.5%). Those who achieved secondary and higher education were 14.2% and 4.1% respectively (Table 3). More than half of the respondents (54.8%) were peasants followed by business women (23.4%), non employed (14.2%) and employed (7.6%). Number of household members (Table 4) shows that half (50.3%) of the respondents came from families with more than 6 household members, followed by those with 4-6 people (29.9%) and 1-3 people (19.8%).

Socio demographic and family involvement in decision to seek medical treatment

The respondents who discussed their condition with family, shared with their spouses (51.1%) while 48.9% of respondents shared with friends and relatives (Table 4). The most discussed issue between respondents and their family was their condition and how to obtain treatment (68.5%) while 10.7% discussed on financial coverage of their condition. Most of respondents used between 1-30 days to share their condition with family (78.2%) while 0.5% used more than 91 days to share their health condition with family. Some respondents (31.5%) were assisted by advice from their family while 21.8% were assisted with transport, others (21.3%) were assisted with child care while they went for medical treatment and 13.2% were helped with purchasing drugs.

Age group between 40-49 years old (87.7%) were more induced by discussion to seek medical treatment than any other age group, however the association was not significant ($p=0.486$) as shown (Table 1).

TABLE 1 INSERT HERE

Table 2 shows that married women (88.8%) who discussed their condition with their family members were more induced to seek medical treatment than those who were never married (85.7%). This association was statistically significant ($p=0.037$).

TABLE 2 INSERT HERE

Respondents with higher education (92.3%) were more likely induced by discussion with family to seek medical treatment than respondents with no formal education (88.2%). However, this association was not statistically significant ($p=0.413$) as shown (Table 3).

TABLE 3 INSERT HERE

Reason for delay in seeking treatment of cervical cancer after receiving messages

Table 5 depicts reasons for delay in seeking treatment among cervical cancer patients after receiving message. Economic constraints (90.9%) such as cost for transportation, purchase of drugs and cost of Pap smear tests were the most mentioned reason for delay in seeking treatment for cervical cancer after receiving message followed by long distances (56.9%). Cultural belief: (spiritual belief that cervical cancer will heal by itself (52.8%), stigma, and discrimination (48.7%) were also frequently mentioned reasons for delay in seeking treatment.

Factors that induce decision to seek medical treatment

Multivariate logical regression analysis was performed to model the likelihood of seeking cervical cancer treatment for a set of explanatory variables that were statistically associated with seeking cervical cancer medical treatment in univariate analysis. Table 7 indicates that age, marital status, occupation and messages from family members were significantly associated with inducing utilization of health centers among cervical cancer patients.

TABLE 7 INSERT HERE

DISCUSSION

Family involvement on decision-making to seek medical treatment

Eighty eight percent of respondents involved their families in decision to seek medical treatment particularly their spouse and friends. Majority discussed about their signs and symptoms of their conditions, treatment options and expense coverage of their treatment. Some of the main assistance offered by the family includes advice to seek medical treatment early, transport, purchase of drugs and looking after the children while they went to seek medical treatment. Family involvement with the patient condition was found to significantly influence decision to seek medical treatment.

In a study conducted in Western Kenya, Bingham *et al.*, (2004) revealed that many women did not seek cervical cancer treatment because their husbands provided little support or were actively opposed. In a similar study conducted in South Africa, spouse/partner

involvement in decision to seek health care were found to significantly influence an individual's role to seek medical treatment (Bradley, *et al.*, 2004). In India, Nene *et al.*, (2007) found that a key factor in a woman's decision to participate in cervical cancer prevention services is her husband's positive emotional support.

Family discouragement about treatment decision for patients with advanced cancer is common and includes a wide range of issues. Family members play an important role in selection of patient's treatment option and provision of care (Zhang and Simiroff, 2003)

Reasons for delay in seeking cervical cancer treatment after receiving messages

More than seventy percent of women in the study cited that they were late in seeking cervical cancer treatment. Some of the most common reasons mentioned for delay include economic constraints such as cost for transportation, purchase of drugs and cost of Pap smear tests, long distances from the respondent's residence to a health center and cultural/spiritual belief that cervical cancer is self healing. Stigma and discrimination; consulting a traditional healer; having no one to assist in child care while they went to the health center and perception that cervical cancer was incurable were mentioned. Most reasons mentioned were probably because most women use many of their resources and eventually feel like they will not be cured of cervical cancer. Almost half of the respondent's went to seek medical treatment after 90 days of receiving cervical cancer messages about treatment. Several studies have recommended that treatment delay of non-communicable diseases like cancer for more than 90 days may be associated with stage migration, which makes it difficult to cure (Wright, 2010). However, there is no significant time set for cervical patient to seek medical treatment after receiving medical information.

In a study conducted in India, the factors most significant associated with delay in seeking treatment were knowledge around symptoms identified, ignoring symptoms, hoping it will go away and fear (O'Mahony *et al.*, 2013). Similar reasons for delay in seeking cervical cancer treatment have been reported in studies done in Tanzania, Kenya, Uganda, Nigeria and Zimbabwe (Kidanto *et al.*, 2012; Kerubo, 2011; Urasa *et al.*, 2011; Were *et al.*, 2011; Gharoro *et al.*, 2006; Mangoma *et al.*, 2006; Samur, 2002; Chirenje *et al.*, 2001). There is need for men and family involvement in decision making to seek medical treatment. This should be encouraged to help motivate women to seek early cervical cancer treatment.

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Table 1: Age (years) by family discussion with respondents on decision to seek medical treatment

Age category (years)	n(%)	Family discussion with respondents to seek treatment; n (%)	Statistics
30-39	25(12.7%)	20 (80%)	$\chi^2 = 7.481$ df = 4 P = 0.486
40-49	73(37.1%)	64 (87.7%)	
50-59	58(29.4)	47 (81%)	
60-69	29(14.7)	23 (79.3%)	
70+	12(6.1%)	10 (83.3%)	
Total	197(100%)		

Table 2: Marital status by family discussion with respondents on decision to seek medical treatment

Marital status	n(%)	Family discussion with respondents to seek treatment; n (%)	Statistics
Never married	6(3.1%)	4 (66.7%)	$\chi^2 = 12.46$ df = 3 P = 0.037
Married	124(62.9)	103 (83.1%)	
Divorced/Separated	36(18.3%)	28 (77.8%)	
Widow	31(15.7%)	21 (67.7%)	
Total	197(100%)		

Table 3: Education by family discussion with respondents on decision to seek medical treatment

Education level	n(%)	Family discussion with respondents to seek treatment; n (%)	Statistics
No formal education	64(32.5%)	53 (82.8%)	$\chi^2 = 6.983$ df = 3 P = 0.413
Primary education	97(49.2%)	73 (75.3%)	
Secondary education	28(14.2%)	19 (67.9%)	
Higher education	8(4.1%)	7 (87.5%)	
Total	197(100%)		

Table 4: Percentage distribution by person with whom the respondents shared their condition

Response	Spouse	Relative/friends
Yes	89 (51.1%)	85 (48.9%)
No	1 (4.3%)	1 (4.3%)
Total	90 (45.7%)	86 (43.7%)

Table 5: Reason for delay in seeking treatment of cervical cancer after receiving messages

Reason	Number	Percentage
Long Distance	112	56.9
Economic constraint	179	90.9
Taking care of children	74	37.6
Stigma and discrimination	96	48.7
Cultural beliefs	104	52.8
Limited availability of services	93	47.2
Seeking help from traditional healer	71	36
Perception that cervical cancer is incurable	72	36.5
Fear	49	24.9

Table 6: Definition of variables in Multivariate logistic regression model

Variables	Descriptions
Dependents	
Message Understood	Was the message received understood? 1=yes, 2=no
Utilization	Did you utilize health center? 1=yes, 2=no
Independent	
Age (years) (AGE)	Age of the respondents in years
Marital status (MS)	Respondents marital status
Occupation (OCC)	Occupational level of the respondents
Education level (EL)	Participants level of education
Perception (PER)	Was the perception positive or negative
Household size (HHS)	Number of family members in the household
Message from family (MF)	Messages received from family members
Sources of message (SoM)	Source of information
Knowledge of symptoms (KS)	Knowledge of cervical cancer symptoms
$Y_1 = \alpha + B_1AGE + B_2MS + B_3OCC + B_4EL + B_5PER + B_6HHS + B_7MF + B_8SoM + B_9KS$	

Table 7: Multivariate logistic regression model for utilization of health services

	OR	SE	95% CI	p-value
Age (years)	1.168	0.183	1.171-2.653	0.000
Marital status	0.968	0.207	0.644-1.453	0.025
Occupation	1.039	0.155	0.767-1.408	0.065
Education level	0.860	0.212	0.568-1.301	0.047
Perception	1.137	0.540	0.347-2.255	0.001
Household size	-0.839	0.200	0.567-1.243	0.382
Message from family	0.775	0.253	0.472-1.272	0.031
Source of message	-0.599	0.340	0.308-1.167	0.132
Knowledge of symptoms	-0.980	0.282	0.564-1.703	0.944
Number of participants		197		
2 log likelihood (χ^2)		245.516 ^a		
Nagelkerke R ²		0.049		
Cox & Snell R ²		0.035		
Log likelihood at p=0.05				