CANCER OF THE CERVIX: KNOWLEDGE AND ATTITUDES OF FEMALE PATIENTS ADMITTED AT MUHIMBILI NATIONAL HOSPITAL, DAR ES SALAAM

H.L. KIDANTO, C.D. KILEWO and C. MOSHIRO

ABSTRACT

Objectives: To determine the level of knowledge of basic symptoms of cancer of the cervix among Tanzanian females and to determine causes of late presentation with advanced disease among cancer patients.

Design: Hospital based cross-sectional study.

Setting: Muhimbili National Hospital, Dar es Salaam, Tanzania.

Subjects: Eighty nine cervical cancer patients and 178 controls were interviewed between August 1999 and January 2000. Data was analyzed using Epi-Info version 6.04.

Results: At Muhimbili National Hospital most patients are admitted in very advanced stages of the disease (Stage IIb and IV). We determined, using a structured questionnaire, knowledge of basic symptoms of cancer of the cervix, attitude and reasons for late presentation among female patients admitted at Muhimbili National Hospital gynaecological ward. The mean age of cases was 48.8 (SD11.1) years and the mean parity was 6.7 years were comparable to that of control, which were 45 years(SD10.8) and mean parity of 6.6 respectively. Mean age in years at marriage was lower for cases 17.5(SD 2.9) than controls 18.8(SD3.5). Majority of cases (50.6%) and controls (23.6%) were illiterate, and 21.3% of cases and 33.7% of controls had incomplete primary education. Majority of both cases (47.23%) and controls (56.7%) had no routine gynaecological examination and they did not find it necessary. More than 90% of the cases were in advanced stages of the disease (stage IIb-IV).

Conclusion: Both cases and controls had low knowledge of basic symptoms of cancer of the cervix and as a result most of those who happen to have problems reported late with advanced disease.

INTRODUCTION

Invasive cervical cancer is the commonest malignant tumour-affecting women in developing countries and is the leading cause of cancer related deaths among women(1).

World wide, approximately 500,000 new cases of cancer of the cervix occur annually and about 200,000 women die of the disease each year(2). It is estimated that cervical cancer account for 80% of all gynaecological cancer admissions in several African countries(1,2). In Tanzania, cervical cancer is a major health problem, although its magnitude remains unknown. At Muhimbili National Hospital, cancer of the cervix is the commonest gynaecological malignancy, accounting for 85% of all gynaecological cancer admissions; For example, of the 2911 gynaecological admissions to the Hospital in 1997, 632(22%) were due to cervical cancer. In a separate observation in 1994, the Central Pathology Laboratory at the Muhimbili National Hospital reported that 16% of the total (5,496) biopsy specimens received were due to cervical neoplasm. Between 1992-1994, 45% of patients referred to Ocean Road Cancer Institute (National tumour center) for radiotherapy were cervical cancer patients(3).

Most of the women in developing countries are diagnosed at an advanced stage compared to their counterparts in developed countries. For example in a study conducted in Nigeria about 81% of cases were diagnosed in stages 111-IV(4). In Kenya back in 1980 it was reported that 62% of patients with cervical cancer presented in stages 111-IV(5). Likewise studies
conducted in Tanzania showed that most cervical cancer patients (>90%) seek medical help in an advanced stage of the disease (6-8).

It is estimated that for each successive stage of the disease, at the time of diagnosis, the overall risk of dying increases by 2.5 fold (9). In a study done by Thoms et al (in 1995) in Atlanta, four-year survival in clinical stage IA was 94%, stage IB was 79%, stage II was 39%, stage III was 26% and stage IV was 0.1(10). The reasons for late presentation have not clearly been elucidated(10). Several factors have been suggested for developing countries such as lack of screening programs, competing health priorities, shortage of trained cytopathologists, negative socio-cultural practices and beliefs and poor back-up facilities(11-13).

The aim of this study was to determine, what and how much Tanzanian women know about cancer of the cervix, regarding basic symptoms, predisposing factors, control measures and general attitude towards cancer of the cervix. Information obtained from this study should form a basis for future planning.

MATERIALS AND METHODS

Study area, design and population: This study was conducted at Muhimbili National Hospital. It is the largest referral hospital in Tanzania and it has a capacity of 1500 beds, it is also a teaching Hospital for the Muhimbili University College of Health Sciences. A comparative cross sectional study was done for a period of six months starting from 1st August 1999 to 30th January 2000. Eighty-nine patients admitted in the gynaecological ward (among them fifteen were newly referred from other referral Hospitals with histologically confirmed cancer of the cervix) were included in the study as cases. All new cases with no histology results were examined under anaesthesia and wedge biopsy for histology was taken and FIGO staging was done.

For every case, two controls matched for age, parity and education were selected from new admissions in the gynaecological ward. Controls were further interviewed and speculum examination was done to rule out cervical lesion. For subjects with a suspicious cervical lesion, biopsy was taken and were excluded from the study. Doubling the number of controls was aimed at increasing the power of the study. In matching cases and controls, an age difference of four years and parity differences of two children were acceptable. As much as possible controls were then matched according to native residence of cases in three zones. Northern zone (Bukoba, Mwanza, Musoma, Kigoma, Shinyanga); Central zone (Dodoma, Tabora, Iringa Morogoro, Singida; Mbe ya; Arusha, Kilimanjaro) and Coastal zone (Tanga, Dar es Salaam, Lindi, Mtwara, Ruvuma).

Data collection: Data were collected by two trained nurses who interviewed patients in Kiswahili language which is the national language using structured questionnaires. Questions focused on knowledge regarding symptoms, predisposing factors, control measures and general attitude towards cancer of the cervix; including importance of routine gynaecological check-ups.

Analysis: Data was entered and analyzed by using Epi-Info version 6.04. Chi-square test was used to compare the proportions of the different parameters in the two groups. Multiple comparisons were done using the Bonferroni Test and the p-value adjusted by multiplying with the number of comparisons. Means were compared using the student's t-test. Results were considered to be significant at an alpha-level of 0.05.

RESULTS

A total of 267 patients (89 patients with cancer of the cervix and 178 patients with other gynaecological problems as controls) were enrolled. One case was dropped because the histology results were inconclusive. Majority of participants (cases and controls) were above 40 years (Table 1). The mean age for the cases and controls was 48.8(SD11.1) and 45.6(SD10.8) years respectively. Majority of both cases and controls were either married or widowed. Most of the participants were unemployed or peasants. Half of the cases had no formal education as compared to one third of the controls. This difference was found to be statistically significant (p=0.00009). High parity was observed for both cases mean 6.7 and controls mean 6.6.

There were no differences in age at marriage between cases 17.5(SD=2.9) and controls 18.8 (SD=3.5). Only 37 out of the 89 (41.2%) and 117 out of 178(65.7%) controls could remember age at first coitus. For cases, the reported mean age at first coitus was 18.8 (SD2.8) which was not statistically different from that reported among controls 17.4(SD2.9); P<0.25. Most symptoms had lasted for about one year, with about 13% of the patients having symptoms for more than two years (Table 2).

The patients with cervical cancer were asked about services that they were offered when they were first seen at the primary health care level. Forty-five percent of the patients had vaginal/speculum examination carried out, about 15% were admitted for treatment other than cancer or further investigation. Among those who had speculum examination and admission for work-up 36(64.15%) were given referral letters to secondary or tertiary centers (Table 3).

Table 4 shows poor understanding of the common symptoms of cancer of the cervix for both cases and controls. Between 38-50% of both cases and controls did not know that irregular vaginal bleeding, post-coital bleeding, post-menopausal bleeding and abnormal vaginal discharge could be symptoms associated with cancer of the cervix.
Table 1

Sociodemographic characteristics among patients with and without cancer of the cervix

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Cases</th>
<th></th>
<th>Controls</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>No</td>
<td>%</td>
<td>No</td>
<td>%</td>
</tr>
<tr>
<td>Age group</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>&lt;30</td>
<td>2</td>
<td>2.2</td>
<td>6</td>
<td>3.4</td>
</tr>
<tr>
<td>30-34</td>
<td>6</td>
<td>6.7</td>
<td>15</td>
<td>8.4</td>
</tr>
<tr>
<td>35-39</td>
<td>11</td>
<td>12.4</td>
<td>18</td>
<td>10.0</td>
</tr>
<tr>
<td>40-49</td>
<td>24</td>
<td>27</td>
<td>53</td>
<td>29.8</td>
</tr>
<tr>
<td>50+</td>
<td>46</td>
<td>51.7</td>
<td>86</td>
<td>48.3</td>
</tr>
<tr>
<td>Marital status</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Single</td>
<td>4</td>
<td>4.5</td>
<td>4</td>
<td>2.2</td>
</tr>
<tr>
<td>Married/cohabiting</td>
<td>55</td>
<td>61.8</td>
<td>128</td>
<td>71.9</td>
</tr>
<tr>
<td>Widow</td>
<td>20</td>
<td>22.5</td>
<td>25</td>
<td>14.0</td>
</tr>
<tr>
<td>Divorced</td>
<td>10</td>
<td>11.2</td>
<td>21</td>
<td>11.8</td>
</tr>
<tr>
<td>Occupation</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>student</td>
<td>1</td>
<td>1.1</td>
<td>3</td>
<td>1.1</td>
</tr>
<tr>
<td>Unemployed</td>
<td>46</td>
<td>51.7</td>
<td>83</td>
<td>46.6</td>
</tr>
<tr>
<td>Paid/self employed</td>
<td>3</td>
<td>3.4</td>
<td>18.0</td>
<td>10.1</td>
</tr>
<tr>
<td>Peasant</td>
<td>39</td>
<td>43.8</td>
<td>27</td>
<td>15.2</td>
</tr>
<tr>
<td>Level of education</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No formal education</td>
<td>45</td>
<td>50.6</td>
<td>66</td>
<td>37.0</td>
</tr>
<tr>
<td>Incomplete primary education</td>
<td>19</td>
<td>21.3</td>
<td>60</td>
<td>33.7</td>
</tr>
<tr>
<td>Complete primary education</td>
<td>23</td>
<td>25.8</td>
<td>48</td>
<td>27.0</td>
</tr>
<tr>
<td>Secondary and above</td>
<td>2</td>
<td>2.2</td>
<td>4</td>
<td>2.2</td>
</tr>
<tr>
<td>Parity</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>0-3</td>
<td>9</td>
<td>10.0</td>
<td>25</td>
<td>14.0</td>
</tr>
<tr>
<td>4-6</td>
<td>35</td>
<td>39.3</td>
<td>74</td>
<td>41.6</td>
</tr>
<tr>
<td>7-9</td>
<td>29</td>
<td>32.6</td>
<td>52</td>
<td>29.2</td>
</tr>
<tr>
<td>10+</td>
<td>16</td>
<td>18</td>
<td>27</td>
<td>15.2</td>
</tr>
</tbody>
</table>

Table 2

Duration (in months) from onset of symptoms until admission to Muhimbili National Hospital

<table>
<thead>
<tr>
<th>Duration</th>
<th>No.</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>1-6</td>
<td>31</td>
<td>34.0</td>
</tr>
<tr>
<td>7-12</td>
<td>32</td>
<td>35.9</td>
</tr>
<tr>
<td>13-24</td>
<td>7</td>
<td>7.9</td>
</tr>
<tr>
<td>25-36</td>
<td>6</td>
<td>6.7</td>
</tr>
<tr>
<td>37-48</td>
<td>6</td>
<td>6.7</td>
</tr>
<tr>
<td>Do not know</td>
<td>7</td>
<td>7.9</td>
</tr>
<tr>
<td>Total</td>
<td>89</td>
<td>100</td>
</tr>
</tbody>
</table>

Table 3

Responses to questions regarding management at the health center when the patient had first symptoms

<table>
<thead>
<tr>
<th>Management</th>
<th>No.</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Medications given for other illness as outpatient</td>
<td>36</td>
<td>40.4</td>
</tr>
<tr>
<td>Vagina/speculum examination done</td>
<td>40</td>
<td>45</td>
</tr>
<tr>
<td>Admitted for treatment/workup</td>
<td>13</td>
<td>14.6</td>
</tr>
</tbody>
</table>

Note: Among those who had speculum examination and those who were admitted 36 were given referral letters due to suspected cancer of the cervix.
Table 4

Knowledge on common symptoms of cancer of the cervix

<table>
<thead>
<tr>
<th>Symptom</th>
<th>Group</th>
<th>%</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Irregular vagina bleeding</td>
<td>Cases</td>
<td>38</td>
<td>0.56</td>
</tr>
<tr>
<td></td>
<td>Controls</td>
<td>50.6</td>
<td></td>
</tr>
<tr>
<td>Post-coital bleeding</td>
<td>Cases</td>
<td>37.1</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Controls</td>
<td>41.6</td>
<td>0.48</td>
</tr>
<tr>
<td>Vaginal discharge</td>
<td>Cases</td>
<td>42.7</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Controls</td>
<td>48.9</td>
<td>0.34</td>
</tr>
<tr>
<td>Post-menopausal bleeding</td>
<td>Cases</td>
<td>39.3</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Controls</td>
<td>48.9</td>
<td>0.14</td>
</tr>
</tbody>
</table>

Table 5

Attitudes towards treatment and screening of cancer of the cervix

<table>
<thead>
<tr>
<th>Question</th>
<th>Cases</th>
<th>%</th>
<th>Controls</th>
<th>%</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>No.</td>
<td></td>
<td>No.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Is routine gynaecological examination necessary?</td>
<td>31</td>
<td>34.8</td>
<td>97</td>
<td>54.5</td>
<td>0.009</td>
</tr>
<tr>
<td>Yes</td>
<td>31</td>
<td>34.8</td>
<td>97</td>
<td>54.5</td>
<td></td>
</tr>
<tr>
<td>No</td>
<td>41</td>
<td>46.1</td>
<td>60</td>
<td>33.7</td>
<td></td>
</tr>
<tr>
<td>Not sure</td>
<td>17</td>
<td>19.1</td>
<td>21</td>
<td>11.8</td>
<td></td>
</tr>
<tr>
<td>Is carcinoma of the cervix curable by traditional healer?</td>
<td>5</td>
<td>5.6</td>
<td>20</td>
<td>11.2</td>
<td>0.268</td>
</tr>
<tr>
<td>Yes</td>
<td>5</td>
<td>5.6</td>
<td>20</td>
<td>11.2</td>
<td></td>
</tr>
<tr>
<td>No</td>
<td>52</td>
<td>58.4</td>
<td>91</td>
<td>51.2</td>
<td></td>
</tr>
<tr>
<td>Not sure</td>
<td>32</td>
<td>36.0</td>
<td>67</td>
<td>37.6</td>
<td></td>
</tr>
<tr>
<td>Is cancer of the cervix treatable in hospital?</td>
<td>55</td>
<td>61.8</td>
<td>110</td>
<td>61.8</td>
<td>0.978</td>
</tr>
<tr>
<td>Yes</td>
<td>55</td>
<td>61.8</td>
<td>110</td>
<td>61.8</td>
<td></td>
</tr>
<tr>
<td>No</td>
<td>4</td>
<td>4.5</td>
<td>9</td>
<td>5.1</td>
<td></td>
</tr>
<tr>
<td>Not sure</td>
<td>30</td>
<td>33.7</td>
<td>59</td>
<td>33.1</td>
<td></td>
</tr>
<tr>
<td>Importance of screening program</td>
<td>49</td>
<td>55.1</td>
<td>148</td>
<td>83.1</td>
<td>0.0001</td>
</tr>
<tr>
<td>Yes</td>
<td>49</td>
<td>55.1</td>
<td>148</td>
<td>83.1</td>
<td></td>
</tr>
<tr>
<td>No</td>
<td>4</td>
<td>4.4</td>
<td>8</td>
<td>4.5</td>
<td></td>
</tr>
<tr>
<td>Not sure</td>
<td>36</td>
<td>40.4</td>
<td>22</td>
<td>12.4</td>
<td></td>
</tr>
</tbody>
</table>

Table 5 shows responses regarding attitudes of the patients towards cancer of the cervix. About 49% of cases and 34% of controls did not think regular gynaecological check-up was necessary unless they were overtly ill. Most of the cases (47.23%) and controls (56.7%) did not have routine gynaecological examination. However, 55% of cases and 83% of controls approve the establishment of a national cancer screening program (P=0.001). Approximately 62% of both cases and controls believe that cancer of the cervix is treatable in hospital.

DISCUSSION

This study investigated, among cancer of the cervix patients, knowledge on basic symptoms of the cancer and reasons for late presentation. The study had some limitations such as (i) being hospital based and therefore not representing the Tanzanian women at large, (ii) some patients had gone through many health care providers hence their responses could be biased, and (iii) matching according to residence was limited to rather large geographical zones.
Despite these limitations the study revealed some important findings. Our findings show that majority of cases and controls had inadequate knowledge of basic symptoms of cancer of the cervix. For example, (63%) cases and (58%) controls did not know that post-coital bleeding could be associated with cancer of the cervix. As a matter of fact, although most cases (55%) visited primary health care facility when they had abnormal vaginal bleeding, most of them (80%) never thought it was a symptom that could be related to cancer of the cervix. To many, the reasons for abnormal vaginal bleeding were excessive coitus, bewitched, eating eggs, husband’s crossing over wife while lying on supine position, having sex with own daughter or extramarital affair.

These responses may illustrate a number of issues such as (i) a low level of patients understanding of cancer symptomatology (ii) a lack of communication between the patients and health care providers, and (iii) health care providers at primary level may lack sufficient knowledge and skills in detecting cancer of the cervix. The latter situation may have discouraged some clients from seeking further medical services and may even have compelled a few to seeking help from traditional healers and other sources, accounting, at least partly, for the patient’s delay in seeking medical attention. In this study 37% reported to have had visited a traditional healer.

Addressing the above problems will certainly shorten the period between onset of symptom(s) and diagnosis from average of 12 months seen in this study, and thus improving the prognosis of patients(3). Although not part of the study, we recommend that the histological diagnostic services for the cancer be increased from the current two centers at Muhimbili National Hospital and the Kilimanjaro Christian Medical Center to all the five zones. Routine gynaecological screening, which would be the ideal practice, is hampered by competing health priorities and lack of resources.

When cases were compared with controls with respect to parity, age at marriage and first coitus, marital status, occupation and education, only lack of formal education was found to be a significant factor among the cases. Other factors such as age at first coitus, parity and socioeconomic status which have been explained in literature(11) were not associated with cancer of the cervix in this study. The two cases that were less than 30 years, which is unusual age for the disease(11,12) could have been with associated HIV infection (6,7). However, none of the patients in this study was screened for human immunodeficiency virus (HIV) infection. It is increasingly becoming clear that cancer of the cervix could be associated with sexually transmitted agents such Human papilloma virus, chlamydia and recently HIV-(6,7), which may need to be screened in these patients for comprehensive understanding of the causes of the cancer in this population, a necessary prelude for prevention and treatment of the patients.

CONCLUSION

About 90% of women present at Muhimbili National Hospital with advanced cancer of the cervix (stages IIb and above). This late presentation was significantly associated with not knowing basic symptoms of cancer of the cervix among patients, ignorance(lack of formal education), and inability of primary health care providers (Rural medical aides in dispensaries and medical assistance in health centers) in diagnosing/suspecting early disease.

We therefore recommend re-training of primary health care providers with emphasis on early diagnosis of the cancer, re-equipping the health centers with diagnostic gears. Patients education on basic symptoms and cancer prevention, the referral of patients to Ocean Road Cancer Institute for radiotherapy, the only institution with such services in the country need to be streamlined to avoid unnecessary delays. Finally despite of the competing health priorities, the government has to establish a national cancer screening program, this needs massive resource mobilization, however, in resource poor setting as it has been shown in Zimbabwe study, we recommend visual inspection using acetic acid which is more appropriate to most primary health care facilities or non physician as an alternative to the more expensive modern screening methods.

ACKNOWLEDGEMENT

The authors would like to thank Prof. Merck Matee for reviewing this manuscript.

REFERENCES


QUESTIONNAIRE
ENGLISH VERSION

1. Serial Number:.............................................
2. Name:...........................................................
3. Age:...................(years)
4. Residence:..................................................
5. Marital status:
   (1) Single
   (2) Married
   (3) Divorced
   (4) Cohabiting
   (5) Widow
6. Age at marriage:
   99 do not remember
7. Parity?
   99 = nulliparous
8. Education level
   (1) No formal education
   (2) Standard 1-4
   (3) Standard 7 leaver
   (4) Form four
   (5) Form six
   (6) Post secondary education
9. Occupation
   (1) Student
   (2) House wife/unemployed
   (3) Employed
   (4) Petty trader
   (5) Peasant
10. (a) Have you ever heard of carcinoma of the cervix (1=Yes 2=No)
(b) If yes how?
    (1) From neighbours
    (2) Through the radio
    (3) Through the television
    (4) From the newspapers
    (5) Through health education

[ ] Control
[ ] Case
11. Have you ever had any of the listed symptoms (1=Yes 2=No)
   (1) Inter-menstrual vaginal bleeding
   (2) Vaginal discharge
   (3) Pelvic pain
   (4) Postmenopausal bleeding
   (5) Contact bleeding
   (6) Haemoptysis
   (7) Lower back ache

12. If yes what steps did you take (1=Yes 2=No)
   (1) Went to hospital/healthy center
   (2) Attended by a traditional healer
   (3) Stayed at home

13. How long did it take you to decide to go to hospital after first symptom (month)?
    99=don’t remember

14. If you haven’t gone to the health centre/hospital immediately after having the first symptom what was the reason? (1=Yes 2=No)
   (1) Thought it was ‘CHANGO’ la KIKE (a general term used for Abdominal pain in women)
   (2) Denied permission by my husband
   (3) I went to a tradition healer
   (4) I had no money

15. Whoever attended you what did he/she do? (1=Yes 2=No)
   (1) Prescribed oral/injected medication
   (2) Did pelvic examination
   (3) Admitted you
   (4) Gave a referral letter to a tertiary center

16. (a) If you were given a referral letter how long did it take you to decide to honour the referral (months)? 99=don’t remember
   (b) If you were late to honour the referral what was the reason?
      (1) I had no money
      (2) I was been attended by a traditional healer
      (3) It was during rainy season and the roads were not passable
      (4) Found it unnecessary since I was not told the diagnosis.

17. If you were not given a referral letter when you were first seen at the health centre how did you manage to reach the referral centre?
   (1) I went to two more dispensaries/hospital before being referred to Muhimbili
   (2) I was brought to Muhimbili by my relatives living in Dar es Salaam
   (3) Since my condition was deteriorating I decided to come straight to Muhimbili without referral

18. Duration of symptoms in months
    99=Don’t remember

19. Age at Menarche (years)

20. Age at first coitus in years
    99= Don’t remember
21. (a) Is irregular vaginal bleeding normal?
   (1) Yes
   (2) No
   (3) Don’t know
(b) Which of the following cause abnormal vaginal bleeding (may be more than one) (1=Yes 2=No)
   (1) Infection
   (2) Cancer
   (3) Abortion
   (4) Injury
   (5) Witchcraft
   (6) Male promiscuity
   (7) Curse from your mother or co-wife

22. (a) Is post-coital bleeding normal?
   (1) Yes
   (2) No
   (3) Don’t know
(b) Which of the following causes post-coital bleeding?
   (1=Yes 2=No 3=Don’t know)
   (1) Infection
   (2) Cancer
   (3) Abortion
   (4) Injury
   (5) Witchcraft
   (6) Promiscuity of your husband
   (7) Curse from your mother or co-wife

23. (a) Is vaginal discharge normal?
   (1) Yes
   (2) No
   (3) Don’t know
(b) Which of the following causes vaginal discharge?
   (1=Yes 2=No 3=Don’t know)
   (1) Infection
   (2) Cancer
   (3) Abortion
   (4) Injury
   (5) Witchcraft
   (6) Promiscuity of your husband
   (7) Excessive coitus
   (8) Husband crossing over you in bed

24. (a) Is postmenopausal bleeding normal?
   1. Yes
   2. No
   3. Don’t know
(b) Which of the following causes postmenopausal bleeding
   (1=Yes 2=No 3=Don’t know)
   (1) Infection
   (2) Cancer
   (3) Abortion
   (4) Injury
   (5) Witchcraft
   (6) Husbands coitus with daughter

25. Have you ever had any routine gynaecological examination?
   1. Yes
   2. No
   3. Don’t know
26. Is routine gynaecological examination necessary?
   1=Yes  2=No  3=Not sure

27. Routine gynaecological examination helps the following
   (1 =Yes  2=No)
   1. Early detection of carcinoma of cervix
   2. To detect STDs
   3. Nothing

28. If you have ever had routine gynaecological examination
    who examined you?
   1. A Nurse
   2. A Doctor
   3. A Witch doctor

29. What is a PAP smear?
   1. Is a smear from the cervix for examination
      to rule out presence of cancer cells
   2. Is a disease
   3. Don't know

30. Is cancer of the cervix a sexually transmitted disease?
   1. Yes
   2. No
   3. Not sure

31. Is cancer of cervix curable with traditional medicine?
   1. Yes
   2. No
   3. Not sure

32. Do you believe that cancer of cervix is curable in hospital?
   1. Yes
   2. No
   3. Not sure

33. Promiscuity is risk factor for developing cancer of cervix
   1. Approve
   2. Disapprove
   3. Undecided

34. Is early coitus (<15yrs) a cause of cancer of cervix?
   1. Yes
   2. No
   3. Not sure

35. Should mandatory screening for cancer of cervix in all
    sexually active women be introduced in Tanzania?
   1. Approve
   2. Disapprove
   3. Undecided