

Assessment of Sex knowledge and Sexual Education of Sudanese women with Cervical Cancer

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Abstract: Objectives: The main objective was to investigate the level of sex knowledge, sexual education of women diagnosed with cervical cancer in Khartoum State. **Methods:** This descriptive, cross sectional based study has been conducted in Khartoum State. Samples of 200 Sudanese women, 100 of them were diagnosed with cervical cancer (cases) and the remainder (100) were haven't got symptoms or signs of cervical cancer (control group). Primary data were collected using a questionnaire. Secondary sources of data related to the topic of the current study were books, previous researches, Internet, and other related published and non-published articles. The data collected were analyzed by using SPSS programme V. 12.0. **Results:** The findings revealed that cervical cancer and satisfaction by sexual education as well as sufficiency of the studied courses and importance of studying sexual education were significantly associated with cervical cancer ($P < 0.05$). **Conclusion:** This study was successful in raising awareness about the importance of sexual education as preventive means against STIs and cervical cancer. The study highly recommends continuing sexual education and awareness campaigns among high risk group in the community.

Keywords: Sex, education, cervical cancer, Sudanese women

Introduction

An estimated 371 000 new cases of invasive cervical cancer are diagnosed world wide each year, representing nearly 10% of all cancers in women. In frequency, it is the seventh cancer site overall and third among women, after breast and colorectal cancer. ¹ In developing countries, cervical cancer was the most frequent neoplastic disease among women until the early 1990s, when breast cancer became the predominant cancer site. ^{1:2}

In many developing countries, not only is cervical carcinoma the most frequently occurring cancer among middle-aged women, but also it is a leading cause of death. This is due, in part, to poor access to medical care and the unavailability of routine screening in many of these countries. ³

Cervical cancer is the most common cause of cancer death among women in Africa and most of the cases are presented at late invasive stage. ⁴

In Sudan cervical cancer is the leading gynecological cancer accounting for almost 40% of cases. ⁵ Lack of cancer registries makes it difficult to obtain accurate estimates of the prevalence of the disease. Nonetheless, available data from the Central National Pathology Laboratory (CNPL), from the oncology and radiotherapy department, as well as Radiation and Isotopes Hospital showed that cervical cancer is an important cause for referral and admissions. ⁵ Condition in Sudan does not differ from other developing countries. Despite the increased prevalence of the disease, few effective programs are available. Most patients still present at an advanced state of disease. The only available treatment is surgery or radiotherapy which is expensive and not accessible to most affected women. The primary approach to the control of the disease is therefore through prevention.

Sex education is the process of acquiring information and forming attitudes and beliefs about sex, sexual identity, relationships and intimacy. Sex education is also develop young people's skills so that they make informed choices about their behavior, and feels confident and competent about acting on these choices. ⁶

A number of studies indicate that only a minority of parents provide meaningful quantities of sex education for their children. American teenagers, for example, report that they learned most of what they know about sex from their parents. ⁷

It is clear that, in Sudan the issue of sexual education is a merely embedded fraction in other study subjects in both schools and universities. The only subject in which sexual education is mentioned science (in basic schools) and biology in secondary schools and universities. This information did not provide people with complete and sufficient information about sex and sexual life. In some families the parent discuss for children sexuality but other family nothing talk about this topic for some reason such like religion, taboos, culture, etc. ⁸

People consider sexual relations to be an intensely private matter and discussion of sex is considered a taboo in Sudanese communities. Attitudes vary according to tribe. A small minority, mainly educated groups use contraception. There is little education about family planning and contraception in rural areas. ⁹

Cervical cancer is estimated to be one of the most prevalent types of cancer in Sudanese women and second most common cancer of female reproductive system. It is closely associated with HPV which is sexually transmitted as well as some risk factors which

associated with female lifestyles, so this study intended to investigate the level of sexual education among women with cervical cancer in order to reduce the spread of this disease.

This study aimed to investigate the levels of sex knowledge, sexual education of women with cervical cancer in Khartoum State.

Methodology

Study area

This study was conducted in Radiation and Isotopes Centre- Khartoum and Ahfad University Reproductive Health Center.

Study design

It was a descriptive, cross sectional study as well as case finding hospital based study.

Study population

All Sudanese women with different degrees of cervical carcinoma and who they get treatment in Radiation and Isotopes Centre-Khartoum during the conduction of the study were included as (cases), in addition to women with no symptoms and signs of cervical cancer as (control).

Sample size

The sample size was 200 Sudanese women, 100 of them were cases who selected from Radiation and Isotope Center-Khartoum and 100 were control group who selected from Ahfad University Reproductive Health Center.

Data collection

Primary data

Primary data were collected using a questionnaire. The tool was designed according to the main and specific objectives of the study.

Secondary data

All the available secondary sources of data related to the topic of the current study were used, such as books, previous researches, Internet, and other related published and non-published articles.

Data analysis

The data collected were analyzed by using Statistical Packages for Social Science (SPSS) v. 12.0.

Results

Table (1) Age and level of education of respondents

		Respondents				Total	
		Case		Control		Frequency	%
		Frequency	%	Frequency	%		
Age (years)	Less than 20	0	0.0%	7	7.0%	7	3.5%
	20 – 30	9	9.0%	39	39.0%	48	24.0%
	31 – 40	22	22.0%	29	29.0%	51	25.5%
	More than 40	69	69.0%	25	25.0%	94	47.0%
Total		100	100.0%	100	100.0%	200	100.0%
		Respondents				Total	
		Case		Control		Frequency	%
		Frequency	%	Frequency	%		
Educational level	Illiterate	63	63.0%	6	6.0%	69	34.5%
	Khalwa	6	6.0%	0	0.0%	6	3.0%
	Primary	11	11.0%	18	18.0%	29	14.5%
	Secondary	15	15.0%	30	30.0%	45	22.5%
	University	5	5.0%	37	37.0%	42	21.0%
	Postgraduate	0	0.0%	9	9.0%	9	4.5%
Total		100	100.0%	100	100.0%	200	100.0%

P value = 0.00 (Significant) < 0.05

As shown in Table (1) mostly younger ages were more frequent among control than cases, where 39% of the control was in the age

group 20 – 30 years compared to 9% of the cases. On the other hand, 69% of the cases were in the age group more than 40 years in contrast to 25% of the control in the same age group. Cross tabulation test indicated that age distribution among the respondents showed statistical significant association with cervical cancer (P value < 0.05).

The above Table shows that there is clear variation regarding educational level of the respondents. While 63% of the cases were found to be illiterates, only 6% of the control has the same level of education. The higher levels of education were commonly seen among the control (37% of them have university level), compared to only 5% of the cases who have the same level of education. Statistical association was found to be significant between level of education and cervical cancer (P value < 0.05).

Table (2) Study of sex and sexual education by the respondents

		Respondents				Total	
		Case		Control		Frequency	%
		Frequency	%	Frequency	%		
Study of sex and sexual education P value =0.002*	Yes	31	31.0%	52	52.0%	83	41.5%
	No	69	69.0%	48	48.0%	117	58.5%
Primary school P value = 0.4**	Yes	21	21.0%	19	19.0%	40	20.0%
	No	79	79.0%	81	81.0%	160	80.0%
Secondary P value = 0.02*	Yes	6	6.0%	16	16.0%	22	11.0%
	No	94	94.0%	84	84.0%	178	89.0%
University P value = 0.00 *	Yes	2	2.0%	20	20.0%	22	11.0%
	No	98	98.0%	80	80.0%	178	89.0%
Forums and lectures P value = 0.2 **	Yes	2	2.0%	0	.0%	2	1.0%
	No	98	98.0%	100	100.0%	198	99.0%
Separated curriculum P value = 0.2 **	Yes	3	3.0%	6	6.0%	9	4.5%
	No	97	97.0%	94	94.0%	191	95.5%
Unit within subject P value = 0.004	Yes	28	28.0%	47	47.0%	75	37.5%
	No	72	72.0%	53	53.0%	125	62.5%
Total		100	100.0%	100	100.0%	200	100.0%

In this table the respondents may chose more than one answer concerning the stage at which the respondents received sexual education.

* Significant (P value < 0.05)

** Not significant (P value > 0.05)

Study of sexual education is shown in Table (2) where 52% of the control group studied it compared to 31% of the cases group. The sources of study varied including primary school, secondary schools, and university, whether within separated curriculum or a unit within a subject. The statistical test of cross tabulation between cervical cancer and the study of sexual education showed significant statistical association (P < 0.05).

Table (3) Satisfaction, sufficiency and importance of sexual education study

		Respondents				Total	
		Case		Control		Frequency	%
		Frequency	%	Frequency	%		
Satisfaction P value = 0.04*	Yes	0	0.0%	4	66.7%	4	40.0%
	No	4	100.0%	2	33.3%	6	60.0%
Sufficiency P value = 0.00 *	Yes	2	2.0%	20	20.0%	22	11.0%
	No	98	98.0%	80	80.0%	178	89.0%
Importance P value = 0.001*	Yes	40	40.0%	19	19.0%	59	29.5%
	No	60	60.0%	81	81.0%	141	70.5%
Total		100	100.0%	100	100.0%	200	100.0%

* Significant (P value < 0.05)

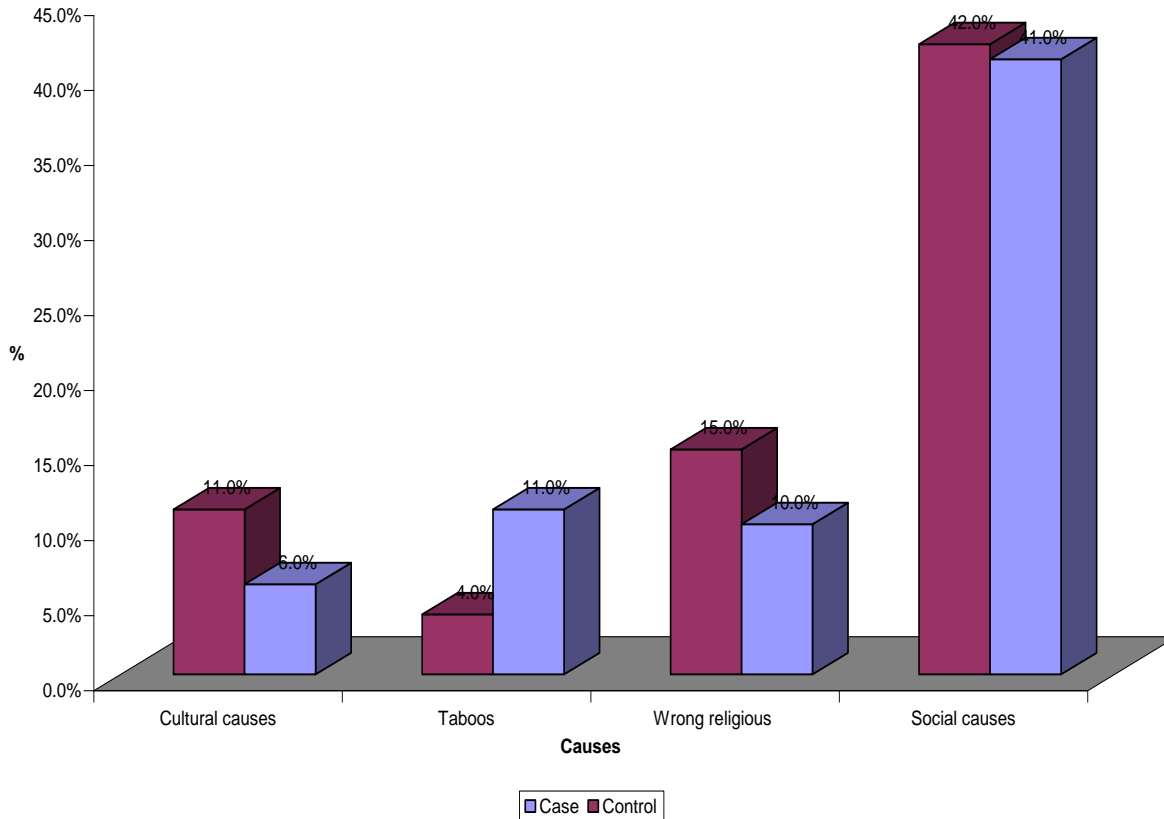
** Not significant (P value > 0.05)

All of the cases who studied sexual education said they did not satisfied compared to 33.3% of the control group. Two percent of

the cases said the curriculum was not sufficient compared to 20% of the control group, and 40% of the cases agreed on the importance of sexual education compared to 19% of the control (Table 3).

The statistical test of cross tabulation between cervical cancer and the satisfaction by sexual education as well as sufficiency of the studied courses and importance of studying sexual education were significantly associated ($P < 0.05$).

Figure (1) Causes behind insufficiency of information obtained from study of sexual education



P value = 0.2 (not significant > 0.05)

As shown in Figure (1) 42% of the control attributed insufficiency of studied curricula of sexual education to social restrictions compared to 41% of the cases who said the same opinion. Other causes include taboos, wrong religious understanding and cultural causes.

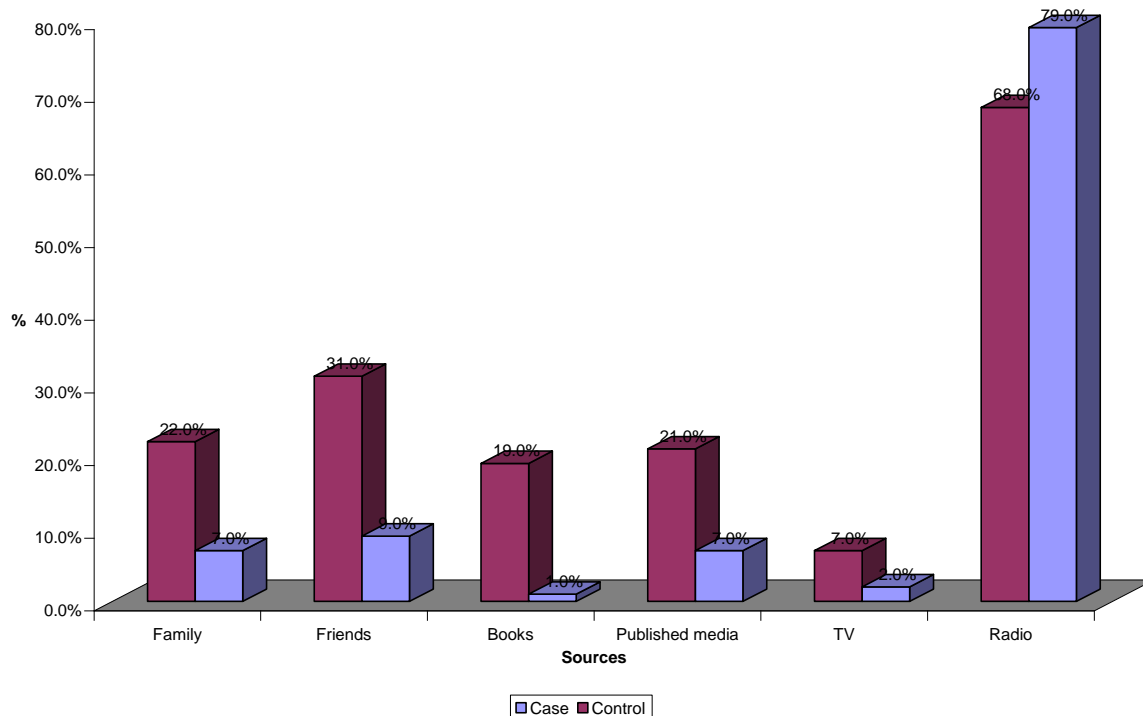
The statistical test of cross tabulation between case and control group showed that the perception of the respondents about the obstacles behind insufficiency of studied sexual education was not significantly associated with cervical cancer ($P > 0.05$).

Table (4) Reception of any information about sex and sexual education out of study curricula

		Respondents				Total	
		Case		Control			
		Frequency	%	Frequency	%	Frequency	%
Reception of any information out of study subject (P value = 0.4 **)	Yes	76	76.0%	73	73.0%	149	74.5%
	No	24	24.0%	27	27.0%	51	25.5%

** Not significant (P value > 0.05)

Figure (2) Sources of information about sex and sexual education



P value = 0.04 (significant < 0.05)

Table (4) and Figure (2) show that 76% of the cases have received information about sex and sexual education from outside the study curricula compared to 73% of the control group. This information was received from different sources including radio, TV, published media, books, friends and families.

The statistical test of cross tabulation between case and control group showed that the reception of extra information about sex and sexual education by respondents was not significantly associated with cervical cancer ($P > 0.05$).

Discussion

In this study hundred cervical cancer positive women (cases group) who selected from Radiation and Isotope Center-Khartoum and hundred cervical cancers negative women (control group, from Ahfad University Reproductive Health Center) were interviewed using structured questionnaire. Concerning the cases group, all the common types of the cervical carcinoma were reported. All the variables that illustrate the significant relations between the case and control were tested. Age was significantly associated with cervical cancer (P value < 0.05). The findings showed that most of the case group (69%) was in the age group more than 40 years compared to 25% of the control (Table 1).

The risk of cervical cancer is highest for women in their late teens through their mid-thirties. Women younger than age 15 rarely develop cervical cancer. Though the risk of cervical cancer does not typically increase after age 40, the risk does not decrease either. Women of all ages, pre-menopausal and post-menopausal, may develop cervical cancer. Therefore, it is important that women continue receiving annual Pap smears as they age.¹⁰

Sex and sexual practices is the main risk factor associated with cervical carcinoma, practice of sex in ages less than 20 years (early age) has been reported to be closely associated with increased risk of cervical cancer. Women who begin sexual activity before 16 years of age or who are sexually active within 1 year of beginning menses are at particularly high risk of developing invasive cervical carcinoma.¹¹

Concerning sex education Tables (2, 3, and 4) and Figures (1 and 2) showed the variation among the respondents in this variable, where 52% of the control group studied it compared to 31% of the cases group. The sources of study varied including primary school, secondary schools, and university, whether within separated curriculum or a unit within a subject. Although, most of both cases and control emphasized on the importance of sex education, yet they complained insufficiency of the available information due to different causes including cultural, religious and other social taboos that restrict sexual knowledge in the Sudanese community. The statistical test of cross tabulation between cervical cancer and satisfaction by sexual education as well as sufficiency of the studied courses and importance of studying sexual education were significantly associated ($P < 0.05$).

On the other hand, most of the cases and control have received information about sex and sexual education from radio, TV, published media, books, friends, families. While, sex tape represents one of the sources of sexual education, some of the respondents (both control and cases) regarded it as a means of delinquency.

Sexual knowledge and education are effective means that could be used as preventive measure in combating STIs and cervical cancer. Today although opposition to sex education in the school continuous, its tone is some what muted. Seventy-seven percent of American adults believe sex education should be taught in schools, and when courses are given, fewer than 5 percent of parents ban their children from attending.¹²

Conclusion

We conclude that according to our finding the relationship between cervical cancer and factors such as age, educational level ,satisfaction by sexual education , sufficiency of the studied course and important of sexual education showed significant statistical association (P value <0.05). This study was successful in raising awareness about the importance of sexual education as preventive means against STIs and cervical cancer. The study highly recommends continuing sexual education and awareness campaigns among high risk group in the community.

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