RESEARCH COMMUNICATION

Perceived Benefits of Cervical Cancer Screening among Women Attending Mahalapye District Hospital, Botswana

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Abstract

    <u>Objectives</u>: The objectives of the study were to describe women's perceived benefits regarding cervical cancer and their association with socio-demographic characteristics. <u>Methods</u>: A cross-sectional hospital-based study was conducted by questionnaire survey. A total of 300 participants were selected by convenience sampling techniques. <u>Results</u>: Participants' mean age was 37 years (SD=11) and their cervical cancer screening rate was 39%. The majority (87%) either agreed or strongly agreed that 'screening is important to be done', while 75% believed screening could find changes in the cervix before full cancer arises and 84% that when found early cervical cancer can be easily cured. Comparing between ever screened and never screened, both groups agreed or strongly agreed that screening is important (88.8% versus 87.3%), and can find changes before they become cancer (83% versus 69.8%) and that cervical cancer is easily curable when detected early (92.4% versus 79.5%). Some 42.4% ever screened and 36.1% never screened responded not sure to whether cervical cancer decreases chances of an abortion. We did not find any socio-demographic variables which were significantly associated with perceived benefits of cervical cancer screening. Perceived benefits was not a significant predictor for cervical cancer screening (OR=1.291, p=0.33). <u>Conclusion</u>: The screening rate is still far too low compared to the National target of greater than 75%. Therefore, despite awareness of the perceived benefits of cervical cancer, the reasons why at risk women fail to participate in cervical cancer screening needs to be adequately explored.

Introduction

    Cervical cancer is the second-most common cancer among women globally and about 80% of cases occur in developing countries (Stewart and Kleihues, 2003). It is estimated that 493,000 new cases and 274,000 deaths occur every year due to this preventable disease (Ferlay et al., 2004). Cervical cancer is a major cause of mortality and morbidity among women in less developed countries including Botswana. A study found that cervical cancer is one of the most preventable human cancers, because of its slow progression, cytological identifiable precursors, and effective treatments (Lee et al., 2002). Therefore, Papanicolaou (Pap) cervical cytology screening has helped to reduce cervical cancer rates dramatically through early detection of premalignant lesions (Devesa et al., 1987; Nygard et al., 2002).

    Botswana is a landlocked, low-resource country located in Southern Africa. It has land borders with Zimbabwe in the northeast, South Africa in the south and southeast and with Namibia to the west. It is estimated that 23.9% of adults are HIV positive (UNAIDS 2008 Report on the global AIDS epidemic). In Botswana, the crude incidence rate of cervical cancer per 100,000 women is 19.8 and the annual number of new cervical cancer cases is 15 6 per 100,000 women. It is the second highest rate of cancer in Botswana after breast cancer (crude incidence rate of 21.4 per 100,000 women) (Ferlay et al., 2004). Despite been the second highest occurring type of cancer in Botswana, the crude mortality rate from cervical cancer remains the highest when compared to other types of cancers with a crude mortality rate of 15.9 per 100,000 women, followed by the crude mortality rate from breast cancer of 15.7 per 100,000 women (Ferlay et al., 2004). Furthermore, despite effective preventive and screening programs that are available in the country's health care system free of charge for cervical cancer screening, the annual number of deaths from cervical cancer in Botswana has remain high at 126 per 100,000 women (Ferlay et al., 2004). The Ministry of Health in Botswana came up with a national guideline for cervical cancer screening in order to reduce the incidence of women presenting with late stage of cervical cancers since the disease is asymptomatic in the early stage but only shows symptoms at a very late stage. According to this policy document, women should have the first cervical cancer screening test done 3 years after first sexual intercourse or at age 18 years whichever comes first and then annually for 3 consecutive years. If

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they have normal Pap smear result, they can continue with cervical cancer screening every 3 years while those with abnormal Pap smear result repeats the screening more frequently say yearly or every 6 months depending on the doctor's recommendation. Those less than 30 years of age, should have annual Pap smear yearly for 3 consecutive years, and if normal continue with routine Pap smear every 3 years or more frequently if abnormal. Those above 30 years should do cervical cancer screening annually and if 3 consecutive screening tests are negative, rescreening should be done not sooner than every 3 years unless the client is high risk in which case it should be done more frequently (National Guideline for Cervical Cancer Screening Programme in Botswana, 2001). The Botswana government under the vision 2016 in collaboration with the Ministry of Health as a strategic objective: Health for all by 2016, introduced routine cervical cancer screening free of charge to all women attending public hospitals in 2003 in order to reduce the incidence of cervical cancer and therefore reduce mortality and morbidity resulting from cervical cancers.

Worldwide, high incidences of cervical cancer are associated with lack of cervical cancer screening or lack of regular cervical cancer screening and follow up of abnormalities. Studies in Botswana reported that lack of cervical cancer screening or infrequent use of cervical cancer is noted for different reasons like lack of knowledge, access, financial constraints, etc (McFarland, 2003). Perceived benefits to cervical cancer is a major factor that determines a woman's likelihood to do cervical cancer screening although attitudes of health providers, availability and cost are other important determinants (Burak and Meyer, 1997).

Most women know that cervical cancer is a serious disease and studies on the perceived benefits of cervical cancer have been not conducted in many less developed countries (La et al., 2002). One of the decisive factors in adopting proactive health behaviours, according to the health belief model, is obtaining benefits from the said behaviour. Studies carried out in Peru and El Salvador specifically sought to inquire about perceived benefits obtained by women who had done a Pap smear. The response include peace of mind in 97% of cases particularly if found to be negative for cervical cancer, increased responsibility to self care since cervical cancer screening can find changes in the cervix before they become cancer in 67% of responses and increased chances of early detection and therefore cure of cervical cancer in 83% of cases (Agurto et al., 2004).

According to reports from a study on factors affecting uptake of cervical cancer screening among clinic attendees in Trelawny, Jamaica; 18% of women who never had Pap smear reported that Pap smear was not necessary as it will only increase a woman's anxiety if found to be suggestive of cervical cancer (Bessler et al., 2007). Among those who had Pap smear test, 60% reported that cervical cancer was sometimes cured by early diagnosis from doing a Pap smear and as a result can be used to address problems associated with infertility but 42% of those who never had a Pap smear does not think cervical cancer is treatable (Bessler et al., 2007).

It is a well established fact that knowledge does not always translate into behaviour but improve knowledge has been found to increase uptake of cervical cancer screening in most research settings. Successful cervical cancer screening programs depend on the participation of informed target population through programs that build knowledge and address misconceptions of the screening programs and therefore increase acceptability and thus improve uptake in cervical cancer screening programs. Is lack of information, knowledge and awareness an issue in the case of Botswana, where available services at no cost are not utilized? The reasons while at risk groups fail to utilize preventive cervical cancer screening services available at no cost needs to be explored with the aim of addressing them in order to improve uptake of cervical cancer screening. Therefore, determining ways of overcoming this problem is a pre-requisite for improving female uptake in cervical cancer screening program. Thus, the objectives of this study were to describe the women's perceived benefits to cervical cancer and the association between socio-demographic characteristics and perceived benefits to cervical cancer.

Materials and Methods

Study Design, and Setting
The study was a cross sectional study. The study was conducted in Mahalapye District Hospital which is a 250 bed hospital which offers outpatients and inpatients services to the Mahalapye sub-district community. It is one of the 6 district hospitals managed by the Ministry of Health in Botswana. It serves as a referral facility to 44 health facilities in the sub-district comprising one primary hospital, 15 clinics, 28 health post and mobile clinics (Mahalapye District Health Report, 2005). Mahalapye sub-district has a total population of 109 811 people, comprising 53318 males and 56493 females (Botswana National Population Census Report, 2001). The hospital is located in the central part of Botswana about 200km from Gaborone, along the A1 road that runs across the country from North to South.

Mahalapye district Hospital was chosen because it runs both outpatients and in-patients services to both males and females. On average, approximately 180 to 240 patients are seen in out-patients daily, approximately 80 patients in Infectious Disease Control Centre (IDCC), and an average bed occupancy rate of 102 patients for in-patients cases (Mahalapye District Hospital Annual Report, 2007). It has good information management systems in place that enables the capturing and retrieval of relevant information with some degree of accuracy and reliability.

Population and Sample Size
The target population for the study comprised all women served by Mahalapye District Hospital who were above the age of 18 years. From the census report, Mahalapye sub-district has a total population of 109 811 people, comprising 53318 males and 56493 females (2001 population census Report). The female population of 56493 served by Mahalapye District Hospital of which approximately 2/3rd comprise the adult population (37 662)

forms the target population of the study.

A minimum sample size was calculated using a standard formula for known population size for a cross sectional study. The formula is given below (Reid and Boore, 1991)[14]:

$$n = \frac{N}{[(1 + N(e)^2]}$$

Where n=sample size of adjusted population, N=population size and e=accepted level of error taking alpha as 0.05.

The estimated number of women seen in Mahalapye District Hospital monthly was estimated from Hospital records to be about 800. Substituting this figure into the formula below, a sample size of 267 was obtained.

$$n = \frac{800}{[(1 + 800(0.05)^2]}$$

However, since convenience sampling was used to interview the participants, the sample size was increased to 300 participants.

Sampling Procedure

Sampling was done by convenience sampling through approaching all eligible women who presented to outpatient department during the month of sample collection for interview (June, 2009). The purpose of the research and procedure was explained to them and those who consented to participate were interviewed. The researcher and the assistant ensured that no woman was interviewed more than once by asking if they have previously been interviewed. The researcher and the assistant also ensured that those women who participated are not of any particular characteristics but heterogeneous.

Inclusion Criteria

All adult women age above the age of 21years attending Mahalapye District Hospital, who consents to participate in the study.

Exclusion Criteria

All women aged below 21years attending Mahalapye District Hospital, since they cannot give consent to participate according to Botswana law, and women above 21 years attending Mahalapye District Hospital who refuse to consent for participate in the study.

Data Collection Instrument and Data Collection

A structured self-administered questionnaire with closed ended questions was the instrument to collect data. The perceived benefits of cervical cancer were assessed using a scale formed by questions in the questionnaire. Each question was scored using a 5 point likert type scale ranging from strongly agree (5) to strongly disagree (1). The scale was revised for negatively worded questions. Perceived benefit which is viewed as the perception that cervical cancer screening will result to early detection of cervical cancer, delay progression of cervical cancer and subsequently lead to decrease mortality due to cervical cancer had total score ranging from 5 to 25 from 5 items. The categorical dependent variable rated yes or no was

whether a woman had ever had cervical cancer screening. If the answer was yes, she was asked if the cervical cancer screening was done within the past 3 years.

The questionnaire was translated to the local Setswana language and was pre-tested using 30 patients in another health facility outside Mahalapye by the researcher to identify gaps and modify the questionnaire appropriately. The questionnaire was then pilot tested and modified to ensure it answered the research questions.

The research assistant was trained by the researcher in conducting the interview and completing the questionnaires through role-playing and going through the process to be followed while completing the questionnaires for the participants. The interview was aimed at collecting answers to the questions in the questionnaire. The questions included questions assessing their participation in cervical cancer screening program, participants and non-participants perception regarding perceived benefits to seeking cervical cancer screening as well as their socio-demographic characteristics.

Volunteer bias was an important bias in this study, since only those that agreed to participate were interviewed. The questionnaire was kept anonymous to minimize volunteer bias. Participants were not selected using any characteristics so as to eliminate selection bias. The questionnaire was administered by the researcher and a trained assistant who speaks the local language to exclude personal prejudice. The questionnaire was also translated to the local Setswana language and administered to participants to eliminate bias due to non-response because the participant cannot read or write. Since, convenience sampling was used; the sample size was also increased to 300 participants to minimize bias.

Ethical Considerations

Ethical clearance for the study was obtained from Medunsa Campus Research and Ethics Committee (MCREC) and National School of Public Health Research Committee of University of Limpopo (Medunsa Campus), South Africa. Permission to conduct the study was obtained from the National Health Research Unit (HRU) of the Ministry of Health, Botswana, and the Management of Mahalapye District Hospital before commencement of the study. Informed consent of participants was obtained. Confidentiality of participants was maintained at all times. To further maintain confidentiality no form of identifiers were in the questionnaires. Participation was voluntary and participants were informed that they could withdraw from the study at any stage of the interview if they so desire without any penalty.

Data analysis

Data were entered into a Microsoft Excel 2003 spreadsheet and imported to SPSS 17.0 for window version for analysis. The analysis results of participants' demographics and baseline outcome variables were summarized using descriptive summary measures: expressed as mean (SD) for continuous variables and percent for categorical variables. The chi-square test was used to find an association between categorical variables. Binary logistical regression was carried out to find the

significant predictor for doing a Pap smear test. All statistical tests were performed using two-sided tests at the 0.05 level of significance. For all regression models, the results were expressed as effect (or odds ratios for binary outcomes), corresponding two-sided 95% confidence intervals and associated p-values. P-values were reported to three decimal places with values less than 0.001 reported as <0.001. A high score was considered 75% or more and a low score was considered as less than 75%.

Results

Table 1 summarizes socio-demographic characteristics of the study participants. A total of 300 participants were recruited with mean of 36.9 years (SD=11.04). Over one third of the women were between the age of 21 and 29 years (36%). Majority of them were (71%) were single, and 21% were married. Only 8% had no form of education and 69% had attained at least secondary education. Almost all participants were of black African race (98%). Less than half (44%) were unemployed. The residential status was almost equally distributed with rural (51%) and urban plus peri urban (49%).

Table 2 shows the distribution of cervical cancer screening status of the participants. Most of those that had ever screened for cervical cancer (64%) actually did the screening within the past 3 years. Most (72%) of the ever screened had attained at least secondary school education. Regarding age, the highest testing rates were among the age group 40-49.

Table 1. Socio-demographic Characteristics of the Participants

Variables		Number	Percentage
Age (years)	21-29	108	36
	31-39	78	26
	41-49	62	20.7
	51-59	52	17.3
Marital Status	Single	212	70.7
	Married	62	20.7
	Divorced	7	2.3
	Widowed	10	3.3
	Cohabiting	6	3.0
Educational level	None	71	7.7
	Primary	21	23.0
	Secondary	2	40.3
	Tertiary	3	29.0
Employment Status	Unemployed	132	44.0
	Employed	168	56.0
Monthly Income	>P5000	49	16.3
	P3000-P4999	30	10.0
	P1000-P2999	51	17.0
	<P999	37	12.3
	No income	133	44.3
Residential area	Urban	54	18.0
	Peri-urban	91	30.3
	Rural	155	51.7

Perceived benefits of cervical cancer screening

Table 3 shows the rating of the perceived benefits to cervical cancer screening. In overall, the majority of the participants responded positively to statements

Table 2. The Cervical Cancer Screening Status of the Women According to Socio-demographic Characteristics

	Ever cervical cancer screen		cervical cancer screen in past 3 years		Group Total	
	Yes (%)	No (%)	Yes (%)	No (%)	N	%
Group Total	39.3	60.7	64.4	35.6	300	100.0
Age (years)						
21-29	28.8	40.7	31.6	23.8	108	36.0
30-39	27.1	25.3	18.4	42.9	78	26.0
40-49	25.4	17.6	25.0	26.2	62	20.7
50-59	18.6	16.5	25.0	7.1	52	17.3
Marital status						
Single	68.6	72.0	67.1	71.4	212	70.7
Married	21.2	20.3	22.4	19.0	62	20.7
Divorced	2.5	2.2	3.9	-	7	2.3
Widow	5.1	2.2	3.9	7.1	10	3.3
Cohabiting	2.5	3.3	2.6	2.4	9	3.0
Educational level						
None	9.3	6.6	10.5	7.1	23	7.7
Primary	18.6	25.8	15.8	23.8	69	23.0
Secondary	39.8	40.7	32.9	52.4	121	40.3
Tertiary	32.2	26.9	40.8	16.7	87	29.0
Employment						
Unemployed	51.7	39.0	59.2	38.1	132	44.0
Employed	48.3	61.0	40.8	61.9	168	56.0
Monthly income						
> 5000	24.6	11.0	31.6	11.9	49	16.3
3000-4999	14.4	7.1	17.1	9.5	30	10.0
1000-2999	16.1	17.6	15.8	16.7	51	17.0
< 1000	10.2	13.7	9.2	11.9	37	12.3
No income	34.7	50.5	26.3	50.0	133	44.3
Residence						
Urban	18.6	17.6	17.1	21.4	54	18.0
Peri-urban	42.4	22.5	48.7	31.0	91	30.3
Rural	39.0	59.9	34.2	47.6	155	51.7

Table 3. Response to Statements of Perceived Benefits to Cancer of Women Attending Mahalapye District Hospital

Perceived Benefits	Ratings (%)					Average Response	SD
	*SD	D	NS	A	SA		
Screening important to be done	0.7	6.0	5.4	35.9	52.0	4.33	0.88
Screening can find changes before they become cancer	1.0	3.0	21.0	45.7	29.3	3.99	0.85
Easily curable when found early	0.7	1.7	13.0	53.2	31.4	4.13	0.75
Cervical Cancer screening improves chances of pregnancy in infertile	6.7	20.9	34.0	32.0	6.4	3.10	1.02
Cervical Cancer screening decreases chances of abortion	8.4	17.1	38.6	27.5	8.4	3.10	1.05

*SD = Strongly Disagree, D = Disagree, NS = Not Sure, A = Agree, SA = Strongly Agree

Table 4. Association Between Perceived Benefit of Cervical Cancer Screening and Cervical Cancer Screening Status

Cervical Cancer Screen	Perceived benefits		
	High	Low	Total
Yes	66	52	117
No	88	90	178
Total	154	141	295

Odd Ratio=1.324 (95% CI: 0.828-2.115) (χ^2=1.38; p=0.2409); * Low perceived benefits<75% of total score, **High perceived benefits ≥75% of total score

about perceived benefits of cervical cancer screening. The average responses were between 3.10 and 4.33. In other words, majority of the respondents are aware of the benefits of doing cervical cancer screening. Over all, more than 87% either agreed or strongly agreed that 'screening is important to be done', 75% believed screening could find changes in the cervix before full cancer sets on; 84% believed when found early cervical cancer can be easily cured. On the other had very few 38%, and 35% believed cervical cancer screening improves chances of pregnancy and decreases abortion, respectively.

Comparison of high and low perceived benefits (Table 4), sixty-three percent (63%) of the never screened had low perceived benefits and forty-three percent (43%) of the ever screened had high perceived benefits (Z statistic=1.38; p=0.2409). There was no significant association between perceived benefit and cervical cancer screening. When the ever screened were compared with the never screened (Table 5), majority in the ever screened and never screened agree or strongly agree that screening is important to be done (88.8% versus 87.3%), screening can find changes before they become cancer (83% versus 69.8%) and cervical cancer is easily curable when detected early (92.4% versus 79.5%). Majority of both the ever screened (42.4%) and never screened (36.1%) responded not sure to whether cervical cancer decreases chances of an abortion but the ever screened (43.1%) thinks screening improves the chances of an infertile woman become

Table 5. Screening Status and Response to Statements of Perceived Benefits of Cervical Cancer Screening

Perceived benefits	Cervical cancer screen ever					
	n	%	n	%	N	%
Screening important to be done						
Strongly disagree			2	1.7	2	0.7
Disagree	12	6.6	6	5.1	18	6.0
Not sure	11	6.1	5	4.3	16	5.4
Agree	66	36.5	41	35.0	107	35.9
Strongly agree	92	50.8	63	53.8	155	52.0
Screening can find changes before they become cancer						
Strongly disagree	2	1.1	1	0.8	3	1.0
Disagree	6	3.3	3	2.5	9	3.0
Not sure	47	25.8	16	13.6	63	21.0
Agree	84	46.2	53	44.9	137	45.7
Strongly agree	43	23.6	45	38.1	88	29.3
Easily curable when found early						
Strongly disagree	1	0.6	1	0.8	2	0.7
Disagree	3	1.7	2	1.7	5	1.7
Not sure	33	18.2	6	5.1	39	13.0
Agree	92	50.8	67	56.8	159	53.2
Strongly agree	52	28.7	42	35.6	94	31.4
Cervical cancer screening improves chances of pregnancy in infertile						
Strongly disagree	10	5.6	10	8.5	20	6.7
Disagree	39	21.8	23	19.5	62	20.9
Not sure	67	37.4	34	28.8	101	34.0
Agree	51	28.5	44	37.3	95	32.0
Strongly agree	12	6.7	7	5.9	19	6.4
Cervical cancer screening decreases chances of abortion						
Strongly disagree	19	10.6	6	5.1	25	9.2
Disagree	30	16.7	21	17.8	51	18.7
Not sure	65	36.1	50	42.4	115	42.1
Agree	53	29.4	29	24.6	82	30.0
Strongly agree	13	7.2	12	10.2	25	9.2

Table 6. Perceived Benefits and Socio-demographic Variables

Socio-demographic variables	Perceived benefits						Statistic P value
	Low		High		Total		
	n	%	n	%	N	%	
Grand Total	141	47.0	154	51.3	295	100	[1]Z= 2.91; p=0.03
Age (years)							χ^2=1.449; p=0.694
21-29	49	34.8	56	36.4	105	35	
30-39	41	29.1	37	24.0	78	26	
40-49	26	18.4	35	22.7	61	20.3	
50-59	25	17.7	26	16.9	51	17.0	
Marital status							χ^2=1.394; p=0.845
Single	103	73.0	106	68.8	209	69.7	
Married	25	17.7	35	22.7	60	20.0	
Divorced	4	2.8	3	1.9	7	2.3	
Widowed	5	3.5	5	3.2	10	3.3	
Cohabiting	4	2.8	5	3.2	9	3	
Educational level							χ^2=2.421; p=0.490
None	14	9.9	9	5.8	23	7.7	
Primary	30	21.3	38	24.7	68	22.7	
Secondary	59	41.8	60	39.0	119	39.7	
Tertiary	38	27.0	47	30.5	85	28.3	
Employment status							χ^2=0.024; p=0.877
Unemployed	61	43.3	68	44.2	129	43.0	
Employed	80	56.7	86	55.8	166	55.3	
Monthly income							χ^2=7.752; p=0.101
> 5000	17	12.1	32	20.8	49	16.3	
3000-4999	11	7.8	19	12.3	30	10.0	
1000-2999	28	19.9	20	13.0	48	16.0	
< 1000	20	14.2	17	11.0	37	12.3	
No income	65	46.1	66	42.9	131	43.7	
Residential area							χ^2=3.23; p=0.199
Urban	28	19.9	25	16.2	53	17.7	
Peri-urban	36	25.5	54	35.1	90	30.0	
Rural	77	54.6	75	48.7	152	50.7	

pregnant as opposed to the never screened among whom 37.4% responded not sure .

We did not find any socio-demographic variables were significantly associated with perceived benefits of cervical cancer screening (Table 6). Applying independent-sample t-test we found that women who had never screened for cervical cancer had significantly lower perceived benefits (t=2.1; P=0.040). Bivariate logistic regression analysis showed that perceived benefits was not a significant predictor for cervical cancer screening (OR=1.291, p=0.33).

Discussion

The cervical cancer screening status of research participants was found to be 39% of which 64% was done within the past 3 years. This cervical cancer screening rate is far too low and do not reach the Ministry of Health's goal of cervical cancer screening of at least 75% or more. A similar study in Botswana found that only 40.0% of study participants had ever had Pap smear tests (McFarland, 2003). This finding of low participation of cervical cancer screening and low follow up of screening is consistent with most other studies done in less developed countries which reported a participation rate of 23% and follow up rates of 46% within 3 years (Lerman et al., 1991; Carey and Gjerdingen, 1993). Among others, the reason for low participation include at risk women not perceiving themselves as been susceptibility to cervical cancer

provided they have no symptoms, lack of information about the benefits of cervical cancer screening and misconceptions like thinking it is painful, takes away virginity etc. Although most participants perceived cervical cancer as serious, the thought of believing that there was no treatment of cervical cancer, makes them uninterested to doing cervical cancer screening.

The research participants whether screened or never screened overwhelmingly agree or strongly agree that it is important to do cervical cancer screening (87%). This is consistent with studies in which the majority of subjects agreed that regular pap smear screening will give them peace of mind, find a problem before they become cancer and very necessary even if there is no family history of cancer (Leyva et al., 2006). The major reasons while both screeners and never screeners in this study believed that it was important to do cervical cancer screen include it could find changes in the cervix before they become cancer (75%) and it could easily be cured when found early (84%). These reasons are consistent with findings of other studies (Burak and Meyer, 1997; Agurto et al., 2004; Bessler et al., 2007).

When participants and non-participants were compared, this study found that there was no significant association between perceived benefits of doing cervical cancer screening and cervical cancer screening (χ^2=1.38; p=0.2409), and this was consistent with previous studies (Agurto et al., 2004; Leyva et al., 2006; Bessler et al., 2007). This however contradicts the prediction of the

Health Belief model which predicts that those with perceived benefits are more likely to take preventive actions, than those with no perceived benefits or low perceived benefits. Thus, it most likely that the low uptake of cervical cancer screening among women attending Mahalapye Hospital, Botswana could be attributed to other factors other than lack of perceived benefits.

The study did not find any significant association between socio-demographic characteristics and perceived benefits of doing cervical cancer screening as both the ever screened and the never screened irrespective of their socio-demographic characteristics overwhelming agree or strongly agree that it was important to do cervical cancer screening. This finding is consistent with findings of other studies in which participants across all socio-demographic characteristics generally were aware of the benefits of cervical cancer screening (Leyva et al., 2006; Bessler et al., 2007). However, continue education to clear misconceptions are still required to ensure increased uptake of cervical cancer screening among the eligible women especially among those that are high risk.

This study was limited by its cross-sectional design, use of self-report, and convenience sampling. Some woman in the sample may have felt sensitive to report negative results, introducing self bias. Study only looked at women attending Mahalapye District Hospital and hence, it may be difficult to extrapolate to the larger population or generalise the findings.

In conclusion, in summary, the rate of participation of cervical cancer screening among women attending Mahalapye District Hospital is still far too low compared to the National target of greater than 75%. Most women do not specially point out perceived barriers such as embarrassment, pain, lack of convenient clinic time, lack of information etc as barriers to seeking cervical cancer screening. Therefore, more work needs to be done aimed at increasing perceived benefits to cervical cancer screening through provision of education/information, addressing misconception and beliefs as well as improving the socio-demographic condition through employment, education, monthly income and better residential area.

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