Role of Interpersonal Communication Channels in the Uptake of Cervical Cancer Screening among Women in Uasin Gishu County, Kenya

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Abstract

Cervical cancer remains a serious health challenge in the developing world due to various reasons. Among these reasons are low uptake of screening services owing to poor access to reliable information about cervical cancer, role of screening and treatment options. This paper examines the role of interpersonal communication channels in the uptake of cervical cancers screening services among women in Uasin Gishu County. The study was guided by Diffusion of Innovations (DOI) theory. It utilized mixed methods research design. The target population of the study was all women within the reproductive age of 18-65 years seeking maternal child health services and family planning (MCH-FP) at Moi Teaching and Referral Hospital in Uasin Gishu County, Kenya. The study used systematic random sampling method to obtain a sample of 308 from the population. Purposive sampling was used for the key informants, namely 4 health workers and 2 County officers from the Ministry of Health. Two focus group discussions (FGDs) were conducted among women with each group composed of 10 women. Data from the FGDs and key informant interviews were used to generate qualitative data. For quantitative data, the study utilized questionnaires for data collection. Quantitative data was analysed using descriptive statistics with the aid of SPSS, version 29. Qualitative data was analysed thematically. The study found that women rely on several channels of communication to access and disseminate cervical cancer information. The most common channels of communication used are friends, health care workers and media channels. From the study findings, it is also concluded that interpersonal communication channels play a key role in the uptake of cervical cancer screening. As such, it is recommended that the major stakeholders, namely the national and county governments, together with non-governmental organizations working in the health sector in Kenya, should make deliberate efforts to formulate policies to guide effective dissemination of cervical cancer messages for prevention, early detection and treatment of cervical cancer.

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Keywords: Interpersonal Communication Channels; Cervical Cancer Screening.

1. Introduction

Worldwide, cervical cancer is the fourth most prevalent cancer in women, with an estimated 604,000 new cases in 2020 [1]. Cervical cancer is the formation of abnormal cells in a woman's cervix caused by long-term infection with human papillomavirus (HPV), which is transmitted through sexual intercourse [1]. As many as 93% of cervical cancer cases are preventable by screening and HPV vaccination. Screening can detect abnormal cells at an early stage when still treatable [2]. Communication is the primary tool for educating people about cancer risks and motivating them to opt for screening for early detection of cancer [3].

Communication in healthcare shapes perceptions and behaviours related to health and is positively associated with the extent of health-information seeking and the practice of preventive behaviour [4, 5]. Conventional mass media channels, like television, newspapers and radio, are instrumental in shaping health perceptions through the initial diffusion of health information, while interpersonal communication channels, including family, friends and colleagues, influence health-seeking behaviours [6, 7].

The study, therefore, investigated interpersonal communication channels utilized by women in seeking cervical cancer information and the role of those channels in the uptake of cervical cancer screening among women in Uasin Gishu County. The findings can help strengthen partnerships of various stakeholders in their efforts to understand the channels that women utilize to exchange knowledge and health-seeking behaviours related to cervical cancer.

1.1 Statement of the Problem

The Government of Kenya continually disseminates information on cervical cancer screening mainly using mass media channels and health policy guidelines such as national cervical cancer prevention strategic plans [8,9,10]. Despite these efforts, cervical cancer remains a major health threat, pointing to little success in terms of screening uptake. Without immediate action, the number of deaths from cervical cancer will continue to increase. This trend is evidenced by the fact that majority of the women in Uasin Gishu County turn up at the Moi Teaching and Referral Hospital (MTRH) with late-stage disease [11]. Patients in this late-stage can no longer benefit from screening and treatment, although they can receive terminal care. Such adverse health outcomes would be avoided through early cervical cancer screening.

Many health communication studies done in Kenya have focused on the role of mass media in the uptake of cervical cancer screening [12, 13, 14]. However, no study has interrogated the use of interpersonal communication channels and their role in the uptake of cervical cancer screening in Kenya. The study therefore sought to bridge this knowledge gap.

1.2 Study Objectives

  i)   Examine interpersonal communication channels utilized in the uptake of cervical cancer screening

among women seeking healthcare services at MTRH, Kenya

ii) Determine the role of interpersonal communication channels in the uptake of cervical cancer screening among women seeking healthcare services at MTRH, Kenya

1.3 Theoretical Framework

The study was guided by Rogers' [15] Diffusion of Innovations (DOI) theory. The DOI model has successfully guided many interdisciplinary efforts in the explanation of social change. Diffusion of Innovations theory explains how new ideas and practices spread within and between communities [15, 16, 17]. Rogers defines diffusion as the process by which an innovation is communicated through certain channels over time among the members of a social system.

The rate of adoption is influenced by the innovation at hand, communication channels, time, and the social system [15]. The richness of diffusion theory comes from its explicit measure of the role of external influences and social networks in the adoption decision [16]. Innovations flow through social networks, which sometimes impede and sometimes accelerate behavioural spread [16]. The premise, confirmed by considerable empirical research, is that new ideas and practices often spread through interpersonal contacts, largely through interpersonal communication, especially if the interpersonal channel links two or more individuals who are near peers [15]. Diffusion theory, therefore, emphasizes interpersonal communication more than any other area of communication research [18].

2. Literature Review

Studies done in Kenya show low levels of awareness and knowledge on cervical cancer. For instance, a study conducted by Lancet Group of Laboratories [19] in Nairobi, Kisumu and Mombasa counties revealed that only 3% of women in the three counties knew the causes cervical cancer. The larger majority (97%) of women did not know about the causal link between the human papillomavirus (HPV) and cervical cancer [20]. Of the total of 327 women sampled, most were married, implying that they were sexually active and thus susceptible to cervical cancer. Therefore, overall, the above studies showed that there is poor knowledge of cervical cancer in many regions of Kenya. Nevertheless, none of the studies focused on knowledge about cervical cancer and uptake of screening in MTRH in Uasin Gishu County. As such, it was important to investigate the level of awareness and knowledge of cervical cancer among women in Uasin Gishu County. Such a study would provide insight to help define appropriate measures to educate women about cervical cancer and enhance their uptake of screening services.

Research in Kenya reveals that, in most regions, women have poor access to reliable information about cervical cancer. For this reason, the levels of uptake of cervical cancer screening is low in most parts of Kenya. Meanwhile, in other regions awareness and knowledge have not translated into increased uptake of screening. For instance, Gichogo [21], in a study carried out in Central Provincial General Hospital, Nyeri, found that the utilization of cervical cancer screening services was low at 24.7%, even though the study group comprised well-educated women who had autonomy in decision-making and good family support. Only less than 20% of the

women knew the importance of cervical cancer testing and majority (80%) of the respondents could mention only one to two risk factors of cervical cancer. Gichogo further observed that knowledge of cervical cancer, Pap smear, risk perception and one's educational level did not necessarily translate into action. This finding explains why the number of unscreened women is high in Kenya even though there is an increase of new cancer cases reported in the country [22].

Interventions that emphasize dialogue-based interpersonal communication (IPC) have been found appropriate for promoting openness and discussions about sensitive, stigmatizing or exposing topics in families, among couples and peer networks to ensure good health outcomes [23,24]. Dialogue-based interpersonal communication sources can also build important community engagement platforms in which dialogue group members become catalysts in transmitting information to their personal and peer networks [24]. Communication for social change is based on the fact that once a new idea, opinion, behaviour, or innovation has been introduced by a change agent through a mass-media platform, dialogue-based IPC helps to diffuse this information in a most credible way through communities [15].

Yoo and Robbins [25], in their study, sought to determine the influence of communication on colorectal cancer screening in America. They found that mass communication is relatively more important in increasing awareness and knowledge of cancer-related risks. They however found that interpersonal communication provides rapid and continuous feedback, making it instrumental in persuading people to engage in a specific behaviour, including cancer-preventive behaviours. Discussions of colorectal cancer screening (CRC) within the family motivate people to obtain a CRC screening test. The findings from colorectal cancer study informed the present research, which focused on how women may be persuaded to engage in screening as an intervention to curb the rising cases of late diagnosis of the disease. A study done by Hendriks [26] in Amsterdam, Netherlands, revealed that varying health campaign effects can be better understood, and potentially improved, if interpersonal communication channels are considered.

In a study, Nyambane [13] sought to determine the influence of electronic media in creating cervical cancer awareness among women seeking reproductive health services at the Kenyatta National Hospital Nairobi, Kenya. Some of the barriers identified were lack of proper information on major issues surrounding cervical cancer, cultural beliefs, myths and misconceptions. Another study by Kabiri and Komuhangi [27], on facilitators and barriers to cervical cancer screening among female undergraduate students of Makerere University, reported that some of the barriers were fear of bad results, low risk perception and fear of embarrassment, among others. Indeed, fear and embarrassment to get screened have been reported frequently as barriers to cervical cancer screening programmes among African women in different countries [27].

2. Methods and Materials

This study utilized mixed methods research design. Both quantitative and qualitative data collection tools were used. The target population of the study was all women within the reproductive age of 18-65 years seeking maternal child health services and family planning (MCH-FP) at Moi Teaching and Referral Hospital in Uasin Gishu County, Kenya. The study used systematic random sampling method to obtain a sample of 308 from the

population. The researcher picked a starting number 3(3rd person) and used the interval of 3, meaning that every 3rd person was selected until a total of 308 respondents were found. Purposive sampling was used for the key informants, namely 4 health workers and 2 County officers from the Ministry of Health. Focus group discussions and key informant interviews were used to generate qualitative data. For quantitative data, the study utilized questionnaires for data collection.

Quantitative data was analysed with the aid of the Statistical Package for Social Sciences (SPSS), version 29. The data were then analysed using descriptive statistics such as frequency distribution, percentages, averages and mean values. Inferential statistics were performed using Pearson's correlation coefficient analysis and regression analysis. Qualitative data, in form of audio recordings, were transcribed then analysed using thematic content analysis with the aid of NVivo (version 12) software. The results from quantitative and qualitative data analysis were presented concurrently using a combination of narrative explanations, tables, charts and graphs.

The researcher obtained permission to conduct the study from the Board of Postgraduate Studies of Masinde Muliro University of Science and Technology. Certificate of ethical clearance of research was also obtained from the Ethics Review Committee of the University. Thereafter, a research permit was obtained from the National Commission for Science, Technology, and Innovation (NACOSTI). Other approvals to collect data were obtained from the following government authorities in Uasin Gishu County: the County Commissioner, the County Director of Education, and the County Director of Health Services. Further clearance for research was sought from the Moi Teaching and Referral Hospital's (MTRH) Institutional Ethical and Research Committee, which approved the study at MTRH. In addition, the participants were fully informed about the nature of the study through verbal explanation and they signed approved consent forms. The participants were assured of strict confidentiality about the information they gave during and after the data collection process.

3. Results and Discussion

The first objective of the study was to examine interpersonal communication channels utilized in the uptake of cervical cancer screening among women seeking healthcare services at MTRH, Kenya. It was deemed necessary to first establish the frequency of access and use of the channels before determining their use for cervical cancer information. The results, derived from both quantitative and qualitative data, were as presented and discussed below.

3.1 Access and Use of Interpersonal Communication Channels for Health Information

The findings on access and use of the various communication channels for health information were as presented in Table 1.

Table 1: Frequency of Access and Use of Interpersonal Communication Channels for Health Information.

| Communication channel (n=308)	M	Very frequently	Frequently	Occasionally	Rarely	Never
Health workers	3.62	52(16.9)	146(47.4)	72 (23.4)	16 (5.2)	22 (7.1)
Family/relatives	3.64	12(3.9)	140(45.5)	72 (23.4)	30 (9.7)	54 (17.5)
Church/Mosque/Temple	3.48	106(34.4)	61(19.8)	54 (17.5)	49 (15.9)	38 (12.3)
Friends	3.74	135(43.8)	69(22.4)	37 (12.0)	23(7.5)	44 (14.3)
Self-help group	2.69	11 (3.6)	102(33.1)	72 (23.4)	28 (9.1)	95 (30.8)
Neighbours	3.09	56(18.2)	68 (22.1)	82 (26.6)	51 (16.6)	51 (16.6)
Workmates	2.32	10 (3.2)	64 (20.8)	30 (9.7)	116(37.7)	88 (28.6)
Cancer survivor	2.68	24 (7.8)	54 (17.5)	54 (17.5)	70 (22.7)	106(34.4)

The results in Table 1 show that all the stated communication channels were utilized. However, the frequency of access and use varied by channel. The most common communication channels used by women to obtain health information were friends (mean=3.74), family/relatives (mean=3.64) and health workers (mean=3.62). The church/mosque/temple (mean=3.48), self-help group (mean=2.69) and neighbours (mean=3.09) were utilized less frequently. In addition, a few women utilised workmates (mean=2.32) and cancer survivors (2.68).

These results cohered with literature that shows how and with whom people connect has a profound impact on their own health behaviours and outcomes [28,29]. Furthermore, the findings affirm the view that family is a primary cultural unit for health education across most countries despite the level of economic development and helps establish culturally engrained beliefs about health and illness. This is reiterated in a study done on upward communication about cancer screening between an adolescent daughter to mother [30]. The study found that daughters were able to successfully recall and deliver a cancer appeal to their mothers and mothers were generally receptive to this message. Not only did mothers listen to their daughters' appeals, but also daughters' knowledge of cancer was considerably improved by the opportunity to educate her female elder.

The study findings further agree with other studies that have demonstrated that women prefer acquiring health-related information via their family and friends in a face-to-face communication over impersonal forms of health seeking behaviours [31,32,33]. Gatumo *and colleagues* [34] put it more succinctly that family and friends are the most important source of information, followed by healthcare facilities and radio/television.

3.2 Sources/Channels of Information on Cervical Cancer and Screening

The respondents were further asked to specify the communication channels they used to obtain information on cervical cancer. The findings were as presented in Figure 1.
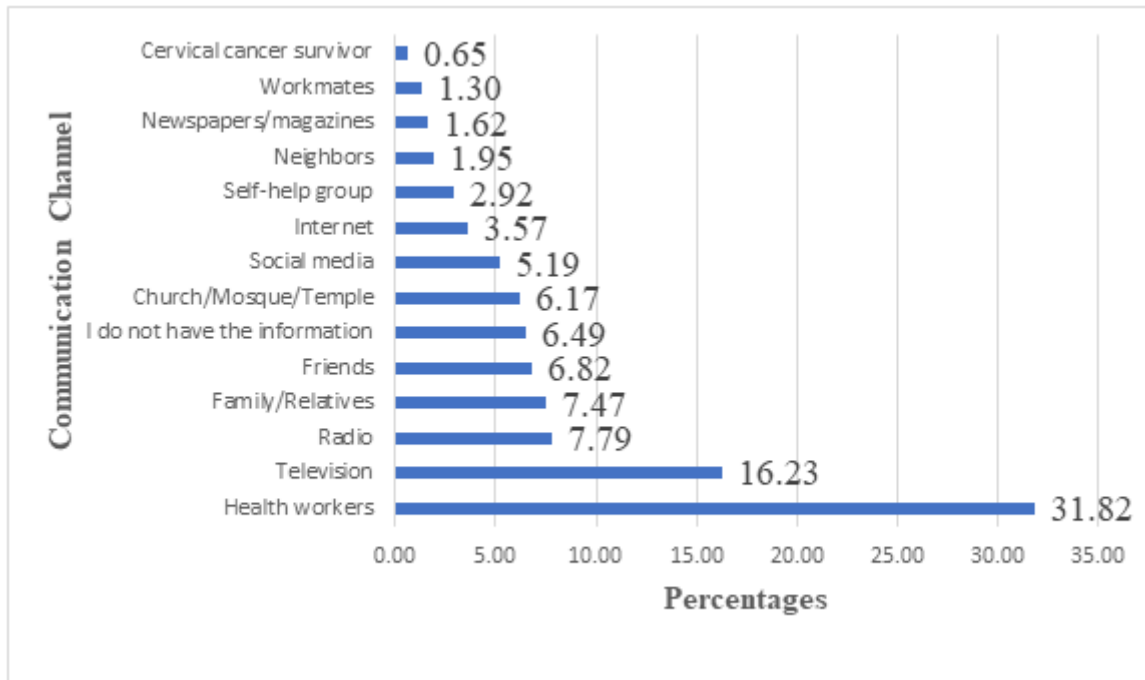
Figure 1: Communication channels for information on cervical cancer and screening.

The results from Figure 1 indicate that the most common channels of communication used to obtain information on cervical cancer and screening were heath care workers, 98(31.82%), and television, 50(16.23%). The least utilized channels was cervical cancer survivors, 2(0.65%). This could be explained by the fact that cervical cancer survivors are rarely engaged as sources of information in society. The findings from the FGDs also showed that the sources of information for cervical cancer included media channels, posters, health care providers and friends. As one participant explained:

I don't remember the program, but doctors and cancer survivors had been invited to an FM radio station to provide information through a talk show. I also got the information through a nurse when I came for family planning, i.e., the IUCD because it is a requirement to be screened (FGD, 02).

This finding affirmed those from the key informant interviews which indicated that the health care providers participate in information dissemination about cervical cancer and screening. For instance, there were community outreaches and dialogue activities. This was noted by one interviewee as follows:

We are also using community health volunteers. We empower them with education on cervical cancer and screening. We even describe the procedure of screening and the equipment we use to dispel the myths that the women have about screening. Community health education workers and public health workers also work hand in hand with public administration in spreading the information (KII, Facility A, 02).

Health care providers were noted as major sources of information, as they participated in awareness creation and sensitization through health talks and health education offered at the health facility. One interviewee had this to say:

Sometimes we use health talks done once in a week, through a promotion team from Chandaria cancer centre. They help us in creating awareness about cervical cancer. The nurses in charge of the various sections also do educational talks and they inform them of the availability of screening. The doctors in gynaecology section inform them of the need to be screened especially those who want to get the IUCD insertion (KII, Facility B, 01).

In addition, public notice boards and posters were used as a means to reach out to the women. Specifically, it was reported that MTRH majorly used posters:

The only source of information on cervical cancer at the hospital currently is through posters. We do use Posters mainly in MTRH and here is the evidence. The poster tells everything about cervical cancer i.e., what it is, its causes, how it is transmitted and symptoms (KII, Facility B, 03).

The clients were able to access cervical cancer screening services at the health facilities. This included the different levels of care from the dispensaries up to the main hospital level. It was noted that in some public health facilities, there was integration of MCH-FP services with cervical cancer screening, but not in MTRH. In such cases, women seeking health care services at MCH-FP clinic could utilize them for cervical cancer information, as was noted by one respondent:

In the public hospitals, we have integrated MCH services especially family planning with cervical cancer screening. We screen them every month as they come for the FP services (KII, Facility A, 01).

The key messages on cervical cancer passed by the health care providers to clients included the general information about the cancer, such as the causes, signs and symptoms and importance of early diagnosis and treatment.

We normally ask them to seek treatment for cervical cancer early. If they have any symptoms of the disease, they seek medical attention. We also sensitize them to come for cervical cancer screening especially women between 14 to 49 years because that is the reproductive age (KII, Facility A, 01).

Other important aspects of the dissemination process included the sensitization on the importance of cervical cancer screening. This included information on where to access cervical cancer screening services as well as the screening procedures. Furthermore, it also included information on the recommended frequency of screening as well as the importance of HPV vaccine. These findings were revealed by two key informants as follows:

The key messages that we communicate at MTRH are importance of screening, what early diagnosis of cancer means and duration in which one should return for screening. We also inform them of the HPV Vaccine for immunization of girls who are not exposed to Human Papilloma Virus, mostly aged around 10-14 years to prevent cervical cancer (KII, Facility B, 01).

Mostly, the focus is on what cervical cancer is, the importance of screening, where they can be screened, early diagnosis of screening, the procedure itself, duration it takes and the time that one should return for screening

(KII, Facility B, 02).

Since data was collected in a hospital setting, majority of the respondents seemed to have received information on cervical cancer from the healthcare workers.

The above findings reiterate those from previous literature. Interventions that emphasize dialogue-based interpersonal communication (IPC) have been found appropriate for promoting openness and discussions about sensitive, stigmatizing or exposing topics in families, among couples and peer networks to ensure good health outcomes [23,24]. Dialogue-based interpersonal communication sources can also build important community engagement platforms in which dialogue group members become catalysts in transmitting information to their personal and peer networks [24]. Communication for social change is based on the fact that once a new idea, opinion, behaviour, or innovation has been introduced by a change agent through a mass-media platform, dialogue-based IPC helps to diffuse this information in a most credible way through communities [15].

3.3 Communication Channels Utilized and Uptake of Cervical Cancer Screening

A Pearson's correlation coefficient test was performed to test whether there was a relationship between communication channels utilized for information on cervical cancer screening and uptake of cervical cancer screening. The results were as presented in Table 2.

Table 2: Communication Channel against Uptake of Cervical Cancer Screening.

		Interpersonal communication channel	Cancer screening uptake
Interpersonal communication channel	Pearson Correlation	1	.876[**]
	Sig. (2-tailed)		.004
	N	**308**	**308**
Cancer screening uptake	Pearson Correlation	.876[**]	1
	Sig. (2-tailed)	.004	
	N	**308**	**308**
**. Correlation is significant at the 0.05 level (2-tailed).			

The results in Table 2 show that there is strong positive relationship between communication channels used and uptake of cervical cancer screening (r=0.876, p = <.004). This implies that the communication channel utilized is a significant determinant of uptake of cervical cancer screening. Therefore, choosing an appropriate communication channel is as critical as the message to be relayed.

This is a pointer to the fact that the fight against cervical cancer calls for effective use of appropriate communication channels to improve uptake of cervical screening in the target audience.

3.4 Role of Interpersonal Communication Channels in Uptake of Cervical Cancer Screening

The second objective of the study was to assess the role of interpersonal communication channels in the uptake of cervical cancer screening. The findings were as presented in the Table 3.

Table 3: Role of Interpersonal Communication Channels.

Role of interpersonal communication channels	M	SA	A	U	D	SD
Healthcare workers like doctors and nurses educate women on cervical cancer risk factors and motivate them to be screened during clinic visits	3.61	107(34.7)	93(30.2)	25(8.1)	48(15.6)	35(11.4)
Community health workers and volunteers are useful in community outreach by informing members about cervical cancer screening	3.55	103(33.4)	101(32.8)	13(4.2)	47(15.3)	44(14.3)
Families and relatives influence cancer prevention and control by providing moral support	3.75	117(38.0)	93(30.2)	22(7.1)	56(18.2)	20(6.5)
Friends provide information or advice about the purpose of cervical cancer tests and the benefits of testing	3.94	92(29.8)	162(52.6)	26(8.4)	26(8.4)	2(0.7)
Religious institutions like churches, mosques and temples view health promotion as part of their mission hence provide health programs which aid in cervical cancer program delivery to women	1.7	4(1.3)	16(5.2)	14(4.5)	126(40.5)	113(36.7)
Learning institutions like schools, colleges reach a wider population through learners by informing them on the need for screening of women of reproductive age	4.55	194(1.3)	99(32.1)	7(2.3)	6(1.9)	2(0.6)
Opinion leaders like politicians, chiefs and assistant chiefs have high credibility and are ideal sources for delivering and reinforcing cervical cancer messages	2.4	47(15.3)	54(17.5)	15(4.9)	61(19.8)	131(42.5)
Group meetings like self-help groups,	4.0	116(37.7)	122(39.6)	36(11.7)	18(5.8)	16(5.2)

	M	SA	A	U	D	SD
workplace meetings, club meetings and *barazas* help in reaching the intended audience (women) with cervical cancer screening messages						
Educational seminars educate women on the benefits of cervical cancer screening	4.54	208(67.5)	78(25.3)	10(3.3)	6(2.0)	6(2.0)

**M: Mean, SA: Strongly Agree, A: Agree, U: Undecided, D: Disagree, SD: Strongly Disagree

The findings in Table 3 indicate that majority of the respondents agreed that learning institutions, like schools and colleges, reach a wider audience by informing and urging learners to spread information on the need and benefits for screening for cervical cancer (4.55). One of the key informants agreed with this finding:

They serve as channels of disseminating information, remember information is power. When they have the information, they can come for the services (KII, Facility A, 01).

This was followed closely by those who indicated that educational seminars helped to enlighten women on the benefits of cervical cancer screening (4.54). Information from key informants were in line with these results. The key informants reported that educational seminars helped educate the community about cervical cancer, hence clear the myths and misconceptions about the disease. In turn, education promoted health seeking behaviour among women.

I think mainly they are used for education purposes. More importantly, it clears the myths peddled by women about cervical cancer and how painful the procedure is (KII, Facility A, 02).

They also play a role in convincing women to change their health seeking behaviour. In Kenya, people go to hospital when they are sick. Since cancer is a disease that may not present itself with symptoms, information given in seminars help them to go for early screening and not wait for symptoms (KII, Facility A, 01).

They provide adequate information on cervical cancer and they convince clients to take up the screening (KII, Facility B, 05).

In addition, healthcare workers, like doctors and nurses, were found useful in educating women on cervical cancer risk factors and in motivating women to be screened during clinic visits (3.61). The findings from FGDs similarly reiterated that healthcare workers played great roles in women's decision to go for screening. These health care practitioners influenced the attitudes and behaviours of women on cervical cancer. They provided adequate information for women on cervical cancer. The channels were found more reliable and convincing as channels for sensitising and reminding women to go for screening.

The healthcare workers influence the attitudes and behaviour of women especially in relation to cervical cancer screening. These channels provide adequate information to women and provide room for feedback i.e., asking questions and seeking clarification about cervical cancer (FGD, 01).

To me it was much of the trust and the adequate information. I felt free to ask for more information in confidentiality and the nurse changed my attitude towards screening. Mine was much about reminding because I had been planning to go for screening for too long (FGD, 02).

On the other hand, some respondents (2.4) disagreed with the statement that opinion leaders, such as politicians, chiefs and assistant chiefs, have high credibility and are ideal channels for delivering and reinforcing cervical cancer messages. This finding disagrees with those from a study conducted in California which found that local opinion leaders have high credibility and are often ideal channels for delivering and reinforcing health messages like cervical cancer screening [35].

The findings from the key informant interviews also underscored the importance of interpersonal communication channels in the uptake of cervical cancer screening. They affirmed that these channels helped in disseminating information about cervical cancer.

A follow-up analysis of the relationship between interpersonal communication channels usage and cervical cancer screening uptake was done. Table 4 shows the findings.

Table 4: Interpersonal Communication Channels and Uptake of Cervical Cancer Screening.

		Interpersonal Communication channels	Cancer screening uptake
Interpersonal Communication channels	Pearson Correlation	1	.676[**]
	Sig. (2-tailed)		<.001
	N	**308**	**308**
Cancer screening uptake	Pearson Correlation	.676[**]	1
	Sig. (2-tailed)	<.001	
	N	**308**	**308**
**. Correlation is significant at the 0.05 level (2-tailed).			

These results in Table 4 show a positive relationship between communication channels usage and the uptake of cervical cancer screening (N=308, r=.676, p=<.001).

Yoo and Robbins [25], in their study, sought to determine the influence of communication on colorectal cancer screening in America. They found that mass communication is relatively more important in increasing awareness and knowledge of cancer-related risks. They however found that interpersonal communication provides rapid and continuous feedback, making it instrumental in persuading people to engage in a specific behaviour, including cancer-preventive behaviours.

Discussions of colorectal cancer screening (CRC) within the family motivate people to obtain a CRC screening test. The findings from colorectal cancer study informed the present research, which focused on how women may be persuaded to engage in screening as an intervention to curb the rising cases of late diagnosis of the disease. A study done by Hendriks [26] in Amsterdam, Netherlands, revealed that varying health campaign effects can be better understood, and potentially improved, if interpersonal communication channels are considered.

4. Limitations of the Study

In the course of undertaking this study, some challenges were experienced. For instance, some of the respondents were unwilling to speak freely and fill the questionnaires because of the sensitive nature of the topic of cervical cancer. For some, the mere mention of screening made them think the aim of the study was to have them screened. As such, the researcher clarified to them that the study intended to ascertain women's knowledge levels on cervical cancer and reasons for not taking up the screening. During FGDs, some women were also afraid to share views arguing that cervical cancer was a taboo topic; this view was rooted in the myths and misconceptions associated with cervical cancer. To overcome this challenge, the researcher explained to the respondents that the study was meant for purely academic purposes and assured them that their views would be kept confidential.

Another challenge was experienced during interviews with the key informants. Interviews were administered at the height of Covid-19 pandemic. Therefore, due to interruptions and need for greater health caution needed, the administration of interviews took longer than expected (2 months). The researcher often had to reschedule the time and venue for interviews. The uptake of cervical cancer screening was based on self-reports, with possible social desirability bias or recall bias. This was overcome by triangulation of data collection, as the study relied on a questionnaire, focus group discussions and key informant interviews.

5. Summary

The first objective of the study was to examine interpersonal communication channels utilized for cervical cancer information in relation to uptake of screening. From the study findings, the most commonly used communication channels was health workers. Other important sources of information included the media channels, posters and friends. The Pearson's correlation test on the variables further showed that there was a strong positive relationship between communication channels used and uptake of cervical cancer screening. This implies that the communication channel utilized is a significant determinant of the uptake of cervical cancer screening. Subsequently, some specific channels of communication had a stronger influence on the uptake of cervical cancer screening. These included health workers, religious institutions, women self-help group (chamas) and cervical cancer survivors.

The second objective of the study was to determine the role of interpersonal communication channels in the uptake of cervical cancer screening among women. As the findings revealed, majority of the respondents agreed that the healthcare workers, such as doctors and nurses, educate women on cervical cancer risk factors and motivate them to be screened during clinic visits. In addition, they also agreed that learning institutions, such as schools and colleges, can reach a wider audience by informing and encouraging learners to disseminate information on cervical cancer screening of women of reproductive age. The findings also revealed that friends provide information or advice about the purpose of cervical cancer tests and the benefits of testing. Meanwhile, religious institutions, such as churches, mosques and temples, view health promotion as part of their mission, hence provide health programmes that aid in cervical cancer screening among women.

6. Conclusion

Women rely on several channels of communication to access and disseminate cervical cancer information. The most common channels of communication used are friends, health care workers and media channels. These findings suggest that healthcare workers, especially doctors and nurses, are strategically placed to enhance uptake of screening among women thus reducing the burden of cervical cancer disease in the society.

From the study findings, it is also concluded that interpersonal communication channels play a key role in the uptake of cervical cancer screening. They help dissemination of information about cervical cancer. They also provide adequate information on cervical cancer, convincing women on the need and benefits of screening for cervical cancer. Further, communication channels are instrumental in educating women about cervical cancer, hence clearing myths and misconceptions about cervical cancer. They are also useful in convincing women to change their health seeking behaviour. Lastly, they influence the attitudes and behaviours of women on cervical cancer screening. Therefore, interpersonal communication channels should be utilized extensively to promote uptake of cervical cancer screening. It is important to note that providing information in itself will not be sufficient to improve screening uptake. The key is to adopt the most relevant and effective interpersonal communication channels to diffuse information on the benefits of early screening for cervical cancer.

7. Recommendations

The major stakeholders, namely the national and county governments, together with non-governmental organizations working in the health sector in Kenya, should make deliberate efforts to formulate policies to guide effective dissemination of cervical cancer messages for prevention, early detection and treatment of cervical cancer. Health policy interventions on cervical cancer should focus on empowering women and the general community with adequate information about cervical cancer and screening services. Integrating interpersonal communication channels with mass media channels is likely to improve women's knowledge about the disease, enable them to make informed decisions about their health and enhance the uptake of cervical screening.

There is a need to provide the requisite training for health care workers on best ways to disseminate cervical cancer information since they are the most frequently utilized and accessed, especially at the primary level facilities. Health care workers and others involved in cervical cancer control at all levels should be trained in effective communication and persuasion skills to communicate effectively with women with a view to empowering them with information leading to improved uptake of screening.

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