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Use of peer-education as an interpersonal communication channel in the voluntary medical male circumcision campaign to prevent HIV infections

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Abstract: Behaviour change communication experts recognise peer-education as an important propeller of health communication owing to its ability to engender compliance through characteristic sharing. This study examines the utility of peer-based interpersonal communication channel in the voluntary medical male circumcision (VMMC) campaign to prevent HIV infections in Siaya County of Kenya. Siaya, predominantly inhabited by the traditionally non-circumcising Luo people, is among the five leading counties in HIV prevalence in Kenya, with 24.8% against the national average of 4.5%. Specifically, the study sought to establish the level of application of peer-education in relation to other IPC channels, and also determine the peer-education competence of those engaged in the VMMC campaign, both in terms of language proficiency and cultural literacy. Questionnaires were administered on 370 of the study location's male residents aged 18-50 years; and on 35 VMMC service providers, mainly peer-educators. Two focus group discussions, each comprising five participants were conducted with male and female residents, and follow-up key informant interviews done with three officials of the VMMC implementing agencies. Results of quantitative data analysis are rendered in text and figures, while qualitative findings are presented verbatim. The findings show that peer-education is the most used IPC channel in the campaign, with varied degrees of application and efficacy. Inadequate peer-education-focused training for the programme's communication team largely accounts for the campaign's failure to realize 100% success. The study recommends targeted communication training for the peer-educators, as well as the engagement of communication experts as integral part of the VMMC programme.

Keywords – HIV/AIDS, Healthcare, Interpersonal Communication, Peer-education, Voluntary Medical Male Circumcision

1. INTRODUCTION

This study set out to examine how peer-education is inculpated in the interpersonal communication (IPC) strategy in the voluntary medical male circumcision (VMMC) campaign to prevent HIV infections in Siaya county of Kenya. Siaya is largely populated by the traditionally non-circumcising Luo people of Eastern Africa. The Human Immunodeficiency Virus (HIV) is one of the world's most worrying health challenges. At the close of 2022, up to 39 million people were living with HIV globally, and 36.3 million people had died from the Acquired Immune Deficiency Syndrome (AIDS)-related illnesses since the emergence of the epidemic in the 1980s (UNAIDS, 2024). The

sub-Saharan Africa bears the brunt of this scourge, accounting for over 54% of the global HIV infections today. Kenya ranks among the world's highest HIV burden countries, with about 1.48 million people in the country living with HIV and about 22,000 new infections across all ages in 2023 (NSDCC, 2024). The epidemic exhibits geographical variation, with a prevalence of 24.8 percent in Siaya, 17.5% in Kisumu County, and 26.0% in Homa Bay County, all located in the Nyanza region. In contrast, the prevalence is 0.8 percent in Garissa County, 0.2 percent in Mandera County, and 0.1 percent in Wajir County, all situated in Kenya's northeastern region. (NSDCC, 2024). One of the key demographic distinctions between the two regions is the prevalence of male circumcision, with Homa Bay in Nyanza having the lowest prevalence at 25.7% prior to the start of national medical male circumcision programme in 2008, while the north eastern region led at 99.7% around the same time.

Although the cure for HIV/AIDS is yet to be found, interventions continue to be launched to manage the scourge which has continued to wreak havoc on both the national and global health. Three trials conducted in Uganda, Kenya, and South Africa demonstrated circumcision's potential to reduce heterosexual HIV infection in males by about 60% (Gray, Kigozi, Serwadda, Makumbi, Watya, Nalugoda et al., 2007; Bailey, Moses, Parker, Agot, Maclean, Krieger et al., 2007; Auvert, Taljaard, Lagarde, Sobngwi-Tambekou & Sitta, 2005). These results have important positive implications for high HIV prevalence countries where heterosexual contact is the primary mode of transmission and where circumcision rates are low (Pfeiffer, Lubinga, Kibira & Mukose, 2015).

Epidemiological trends in Kenya (Odhiambo, Laserson, Sewe, Hamel, Feikin, Adazu *et al*., 2012), as in neighbouring Uganda (Pfeiffer et al., 2015), show that the communities that, traditionally, do not practice male circumcision have the highest HIV prevalence and vice-versa. Thus, Kenya launched the voluntary medical male circumcision (VMMC) for HIV Prevention programme in 2008 (Kenya Ministry of Public Health & Sanitation, 2009), with regions with the lowest male circumcision prevalence and, also, the highest HIV prevalence, becoming the priority areas for the implementation of VMMC (Otteng, Wenje & Kiptoo, 2020).

2. LITERATURE SURVEY

2.1. Peer-based interpersonal communication in the health communication continuum

Behavioral researchers have placed communication at the core of healthcare management, arguing that well thought out communication strategies have the potential of rallying targets clients towards embracing a health intervention to combat a health problem (Schiavo, 2014; Rogers & Storey, 1987). Behaviour change communication researchers, such as Rogers (2003) and Pettegrew and Logan (1987), acknowledge interpersonal communication (IPC) as a crucial instrument for promoting the alteration of attitudes and behaviors. IPC is widely seen as a key aspect of health communication due to its distinct capacity to promote adherence to essential behavioral adjustments, and address challenges associated with prejudice, social stigma, and cultural conflicts. Behaviour change communication scholars (Rogers, 2003; Pettegrew & Logan, 1987) view (IPC) as a vital tool for engendering attitude and behaviour alternation. It is a key plank in health communication because of its exceptional capacity to create compliance with key behaviour adaptation elements, and address issues of discrimination, stigma as well as culture-related conflicts (Schiavo, 2014).

A peer is an individual who possesses similar traits as the "targeted" group or individual, enabling them to establish a connection and understand that individual's experiences and feelings more deeply than a non-peer would (Petkovic et al., 2016). Typical peers are individuals who have similar demographic and other characteristics. In healthcare, peers offer encouragement, education empathetic understanding, and emotional uplifting (Doull et al., 2005; Dennis, 2004).

Peer-education is an effective method for influencing and modifying health behaviours. Incorporating peer elements into health management has demonstrated notable advantages in patients' self-management programs. (Weber et al., 2010). A study conducted in Turkey examined the impact of peer-education on the knowledge and attitude towards HIV/AIDS among university students. The results revealed that students who received peer-education demonstrated improved understanding and a more positive shift in attitude (Ergene et al., 2005). Giménez-

Garcia et al. (2017) revealed that peer-championed advocacy in Spain as effective as expert-guided campaigns in preventing HIV among the youth.

An examination of peer-based interventions in Kenya, Zambia, and Zimbabwe found a strong correlation between peer-education and several positive outcomes. These include an increase in HIV knowledge, a decrease in tool sharing among those using injectable drugs, and an increase in use of condoms. Furthermore, the research established a clear connection between peer-led interventions and behavior adjustment among "hidden" and marginalized groups, like commercial sex workers and injectable drug users (Medley, 2009). In Rwanda, Michielsen, Beauclair, Delva, Roelens and Temmerman (2012) conducted research on the impact of peer-led HIV deterrence interventions in secondary schools. Their findings revealed that while peer education had limited effectiveness in improving knowledge and reducing sexual risk behavior, it did lead to a notable decrease in the stigma experienced by individuals who participated in the peer-led intervention. Avina, Luchter, Scott, Chersish, Munyao and Kaai (2008) conducted research in Kenya's Mombasa to examine the effects of five-year peer-led interventions on sexual behavior and sexually transmitted infections. The study revealed that female sex workers who participated in peer-led learning displayed a positive attitude to HIV testing. Nevertheless, there is limited research on the effectiveness of peer-education as an infection prevention and control (IPC) method for (VMMC), which is relatively new in Kenya.

Male circumcision is a complicated issue which involves sometimes difficult discussions on issues of culture, tradition, religion, ethnicity, human rights and gender (UNAIDS (2007). This is especially true in a tightly-knit cultural civilization like that of the Luo, the main subject of this paper (Ndeda, 2003). Sifuna (2021) categorizes the Luo as the most culturally unique among the three primary non-circumcising communities in Kenya. The key distinguishing aspect being their non-circumcising culture. Thus, to successfully undertake the programme, particularly in a traditionally non-circumcising population, a well thought out interpersonal engagement that engenders unambiguous understanding of the target beneficiaries and other stakeholders by those engaged in developing communication strategies is essential (Otteng, Wenje, Kiptoo, Anyonje, Mwangi, 2020). IPC is had been praised as a fitting approach for developing countries, where mass communication media are not widespread. Besides enhancing awareness, IPC is capable of engendering provider-community integration through inclusion, interaction, participation and self-determination (Prilutski, 2010). However, there is limited research on the effectiveness of IPC, especially in rural areas where oral communication remains the primary mode of interaction. While the Government of Kenya and different agencies are engaged in the provision of voluntary medical male circumcision services, it is unclear if the target populations understand the whole concept of VMMC, as few studies have investigated what aspects of interpersonal communication have been employed in the programme, and with what results. According to Otteng, Wenje and Kiptoo (2020), previous studies conducted in Kenya regarding communication's influence on HIV/AIDS interventions programs, specifically Voluntary Medical Male Circumcision (VMMC), have primarily concentrated on mass communication media. However, these media outlets, as noted by Hoffman-Goetz and Friedman (2005), possess various limitations such as insufficiency, speculation, inconsistency, and lack of thoroughness.

Siaya County reveals a discrepancy between knowledge and practice. Despite very high levels of knowledge, over 90% (KNBS, 2013), action to match the awareness is low, a state of affairs Rogers (2003) calls knowledge, attitude, and practice gap. Although individuals often turn to mass media for acquiring new concepts, they rely on interactive linkages to transition from gaining awareness to experimenting with and consistently practicing a fresh behavior, as well as generating ongoing interest (Wang, Duke & Schmid, 2009). Hence, successful implementation of this program necessitates effective interpersonal communication. However, the effectiveness of interpersonal communication mostly relies on specific factors, with the selection of appropriate IPC channels being a crucial determinant in delivering health messages to the intended recipients. Studies so far done on the role of interpersonal communication in the VMMC campaign in Kenya have not focused specifically on IPC strategies. In his research on IPC and VMMC in Busia, Kenya, Emojong (2019) instead concentrated on information source qualities and communication context.

Odwar's (2018) research, conducted in Siaya, delved into the role of IPC in facilitating decision-making. The primary focus of the current study is peer-education.

3. PROBLEM STATEMENT

Studies so far done in Kenya on the role of communication in the HIV and AIDS management programmes have largely focused on the mass communication media as the preferred channels for health message dissemination, with little attention accorded to peer-based interpersonal communication, despite the latter's acknowledged as key component of the overall health communication continuum. IPC is particularly useful when dealing with such sensitive psycho social issues that transcend the boundaries of health as culture, sexuality and stigma. Yet, a research gap exists a as far as its efficacy or its specific achievements are concerned. Equally lacking is study on how factors like communication training, language proficiency and cultural competency affect individuals' performance as peer educators. This study, therefore, examined the utility of peer-based interpersonal communication channel in the voluntary medical male circumcision (VMMC) campaign to prevent HIV infections in Siaya County in Kenya. Specifically, the study sought to:

i. establish the level of use of peer-education in relation to other IPC channels, and
ii. determine the peer-education competence of those engaged in the VMMC campaign, both in terms of language proficiency and cultural literacy.

4. RESEARCH METHODOLOGY

4.1. Study design

The research employed both quantitative and qualitative methods to collect data, and utilized a multi-stage sampling strategy, first at the county level and then within the sub-counties. The study employed purposive sampling to pick the specific sub-counties for investigation. The researcher used purposive sampling technique to pick participants who possessed the specific characteristics required for the study, based on the guidance of Mugenda and Mugenda (2003), and Peil (1995). This technique was chosen since the researcher had prior knowledge of the relevant sources of the necessary information in relation to the study's purpose. The researchers used proportionate sampling to choose cases from the sub-counties of Bondo and Rarieda, following the guidelines provided by Borg and Gall (1993). The study's sample frame consisted of four groups of subjects. The initial cohort included males between the ages of 18 and 50 residing in the two areas, predominantly from the fishing population. While the male circumcision initiative aims to include males of all ages from zero to 60, this study specifically focused on those aged 18 to 50. This age range was chosen since individuals below 18 are legally unable to provide informed permission, as stated in the Constitution of Kenya, 2010. The second group had 35 peer-educators and health volunteers in the program. Group number three consisted of male residents from the two sub-counties who possessed comparable demographic traits to those in the first group. The last group had three officials from the organisation responsible for the programme's execution in the county, at the level of supervisors.

4.2. Data collection techniques

The snowball sampling technique was employed to obtain participants from the initial three groups. The selection of this approach was motivated by the delicate nature of the topics at hand - HIV/AIDS and circumcision. Due to the concerns of confidentiality and social disapproval associated with these specific health conditions (MoH, 2014, Agne, et al., 2002; Ndeda, 2004), certain individuals may be hesitant to take part in the study. This concern is supported by Laibon et al.'s (2017) previous research among men engaged in sex work in Nairobi County, who were receiving antiretroviral medication. They utilized the snowball technique due to the social stigma and discrimination linked to HIV/AIDS. Alvi (2016) states that the snowball sampling methodology is commonly employed to identify and enlist "hidden populations," individuals not readily reachable through alternative sampling methods.

4.3. Area of study

Siaya County is situated in southwestern Kenya, within the Nyanza area (formerly Nyanza Province), and has six sub-counties. This study focused on Siaya's two sub-counties, Bondo and Rarieda. The research sample was selected from the fishing regions within the sub-counties. The selection of Siaya as the overall research area and the two sub counties as specific study locations was influenced by various considerations. Siaya has the second highest HIV prevalence nationally, standing at 24.8%, following Homa-Bay with a prevalence rate of 26.0% (NSDCC, 2024). Furthermore, the county is located in the Lake Victoria region of western Kenya and is primarily populated by the Luo community, who, in their tradition, do not practice circumcision. Approximately 50% of men who have not had circumcision are located in this specific area, where the rate of circumcision is approximately 46%, compared to the national norm of 85% (*Daily Nation*, July 2, 2020). Rarieda and Bondo, the only sub-counties in Siaya bordering Lake Victoria, exhibit the highest HIV prevalence rates among all other sub-counties (County Government of Siaya, 2014). There exists a notable disparity in the incidence of HIV between fishing settlements and the populations living in their near vicinity. Opio *et al*. (2013) reported that fishing communities had a 22% HIV prevalence, three times the Ugandan adult HIV prevalence of 7.3%. This indicates that fishing populations face a greater risk of contracting or spreading the disease. It is clear that the VMMC programme in Siaya County has allocated a significantly larger outlay of resources to the beaches compared to the inland areas.

5. DATA ANALYSIS AND DISCUSSIONS

This study investigates the utilization of peer-education in the interpersonal dynamics during the execution of the VMMC program in Siaya County of Kenya. Specifically the research sought response in specific areas, namely the VMMC service clients' engagement and service providers' use of peer-education and other IPC components. Additionally, the study sough information on the IPC competence of the VMMC service provers from their own perspective and that of their clients. Further the study collected information on demographic factor such as the target clients' occupations, income levels and occupations, which were considered important in determining people's communication patterns.

5.1. Demographic information

Table 1: VMMC Target Clients' *Demographic Information*

Variable	Frequency/Percent	
Clients' level of education Clients	University	9 (3.5%)
	Secondary	86 (34.3%)
	Primary	126 (50.3%)
	College	19 (7.7%)
	None	11 (4.2%)
Clients' average income per month	< 1,500	9 (3.7%)
	1,500 – 5,000	60 (23.9%)
	5,001 – 10,000	103 (41.0%)
	10,001-15,000	71 (28.3%)
	>15,000	8 (3.1%)

Table 2: Service Providers' Demographic Information

Service providers' level of education	
Primary	
Secondary	13 (36.2%)
College	18 (51.5%)
University	2 (6.2%)

5.1.1. Clients' occupation and sources of income

According to the data presented in Table 3.1, the largest group of respondents consisted of fisherman, making up 64.2% (n=161) of all the respondents. The remaining individuals, comprising a consolidated 35.8% (n=90), were involved in economic endeavours that directly contributed to the fishing industry, such as transportation, selling fishing equipment, loading fish, and vending food. The results indicate that the majority of the participants came from economically disadvantaged families, with a significant 68.6% (n=172) earning a monthly KSh10,000 or less. A mere 28.3% (n=71) fell within the income range of KSh10,000 to 15,000, and 3.1% (n=8) earned over Ksh15,000. The majority of participants in the focus group discussions reported earning an average of 10,000 or less.

> *I get between 200 and 300 shillings a day. Other time a get less from my transport business* [FGD2-2].
>
> *The fishing work depends on the times of the month; on a daily basis there are times we can get good money but on average what we get it around 300 shillings* [FGD1-3].

The income data are consistent with earlier studies among Lake Victoria residents (Omwega *et al*., 2006; Evens *et al*., 2014), which show that residents, chiefly those living along the coast, are primarily in lower income brackets. It is also confirmed by Abila (2007), who says that the Lake Victoria regions of Nyanza and Western have the second and third lowest per capita income respectively, both of which are below the national average. Poverty among the fishing households is closely related to the health and economic state of the fishery (Evens *et al*., 2014). The findings on clients' education and income are significant for this study because of the influence of individual or household income on source of information. Anderson (2018) in his study on sources of information for Americans found that people with higher income levels were more likely to buy newspapers than those on the lower income brackets, while *De Negri* (2009) avers that people with low income level depend to a large extent on interpersonal messages to receive health information.

5.1.2. Level of education and competence in language

Target Clients: The study aimed to determine the educational attainment of the respondents. The data analysis showed 50.3% (n=126) of those examined had completed basic education, 34.3% (n=86) had completed secondary education, 7.7% (n=19) had completed college education, and only 3.5% (n=8) had completed the university level. The participants demonstrated proficiency in the Dholuo language, with 83.8 percent stating that they were highly skilled. The distribution of competency in English and Kiswahili languages was relatively equal, with competence levels ranging from a maximum of 36.0% (n=90) to a minimum of 1.9% (n=5).

The study considered the education level and language proficiency a crucial factors in formulating the questionnaire, taking into account the selection and complexity of language to be used. The decision to maintain the questionnaire in English was based on the pilot study, which showed reasonable proficiency in English language among the target despondents. The researcher and proficient research assistants were available to offer aid to the respondents throughout the procedure.

Providers of services: The data in this section indicates that most persons in the sample had completed a college degree, with 51.5% (n=18) being college graduates. The secondary school graduation rate was 36.1% (n=13), whereas the rates for primary and university education were 6.1% (n=2) and 6.3% (n=2) respectively, indicating lower figures.

The presence of similarities or disparities in the education level and language abilities of health workers and service seekers is regarded as crucial in determining interpersonal relationships. Several clients, especially those with limited educational attainment, viewed certain healthcare professionals as holding a condescending attitude towards them due to their educational background.

> *Some of these people think that we don't know anything, but we are also ready to show them know that we know what we know and we don't have time for those things of theirs. Nonetheless we are ready to listen to them if they show respect. [FGD1-05 (client)]*

The medics, while denying their customers' accusation of condescension, attributed the situation to the clients' lack of comprehension regarding fundamental health knowledge and matters. This finding is consistent with the findings of research done in Malawi, where Seljeskog et al. (2006) demonstrated that the extant disparity in educational levels between the two groups created a substantial barrier to obtaining maternal services. The findings on clients' education and income are further significant for this study because of the influence of individual's education level on source of information. Anderson (2018), in his study on sources of information for Americans found a clear correlation between education levels and information concluding that more highly educated people were likely to be regular newspapers readers. The case was the same for level of income with those with higher income more likely to buy newspapers than those on the lower income brackets. *De Negri* et al (2009) aver that people with low education level depend to a large extent on interpersonal communication methods like peer-education for receiving health messages.

5.2. Engagement in peer education and other IPC components

Peer-education was measured against other modes of interpersonal communication with intention of gauging its rating vis-à-vis the rest. Out of the total number of respondents, 70.9% (n=178) reported their involvement in peer-education, whereas 29.10% (n=73) reported not participating. From the total sample size of 196 individuals, 78.10% had actively engaged in community activities. Additionally, the informants reported the implementation of a peer-based program, in which mobilizers would introduce "champions" (individuals who had undergone circumcision) to convince their peers to accept the procedure. Home visit was another IPC method the participants reported using (66.7% or n=167). Out of the total sample size, only 39.8% reported receiving expert counseling, whereas 34.6% had utilized a telephone hotline.

According to the survey, peer-education was accorded the topmost consideration by 85.5% (n=30) of the service providers, indicating a "very high" level of importance. Up to 8.6% (n=3) considered it to be of "high" priority, while 5.7% (n=2) considered it to be of "low" priority. Implementers conducted home visits, with 45.5% (n=19) and 30.8% (n=11) of the respondents indicating that they assigned "high" and "very high" priority to this activity, respectively. According to the survey, "community events" ranked as the third most preferred means of mobilization, with 66.5% (n=23) of respondents giving it a high priority or very high priority. The expert counseling and telephone helpline had a low rating of 39.6% (n=14) and 46.6% (n=16) respectively. These findings exhibit a favorable comparison to those obtained from the target clients.

While both sets of respondents in the quantitative survey reported high priority accorded to peer-education, findings on focus group discussion involving male respondents show that peer-based education was inadequate. According to their study, although there are active groups formed around certain interests such as work and sport, the program has not successfully recruited them or their peers as advocates for (VMMC) in the field.

AIDS is very prevalent here. But these people have not made enough effort to involve the youth in discussing their health issues …Like circumcision, or HIV. Some of us are here without any work to do. We are willing to work with them and help them help them talk to our peers. The problem is that we hardly see them around. [FGD2-01]

The female focus group discussants agreed with the male participants:

Myself I have not seen them. We have out many social gatherings as women and they could use such gatherings to persuade us to be their advocates in those things [FGD2-01]

The only time they came here was when they wanted to circumcise our son. The problem was that we could not talk to strangers, although they claimed *to have come from Bondo town. I don't know anybody from here who is involved in the campaign.* [FGD2-02]

Both categories of FGD participants agreed that the engagement of their peers to spearhead the VMMC campaign among them could boost the uptake.

It is true that if they employed some of us to carry out the campaign here, the programme could succeed because people here can listen better to one of their own than listen to stranger (FGD1-3).

The key informants offered additional information on the strategies of engagement employed in the program. One interviewee, a ministry of health employee who had been involved in the programme since it started in 2008, and has experience working with various implementing teams, disclosed that the intervention has been carried out by four non-governmental organizations, with the ministry of health consistently involved as a partner. Distinct communication campaign strategies were employed during each phase.

In earlier programmes, some agencies used champions, individuals who had been circumcised under this programme, to talk to their peers on the value of circumcision. Others would just go to schools to make generic presentations... Today, the implementers use an age-appropriate and client-centered strategy, in which IPC agents work as peer-advocates. [KII – 03]

The manager stated that although they utilized several methods such as peer-education, professional counseling, home visits by experts, community events, and a telephone hotline, the program functioned in a manner where staff members responsible for different communication strategies worked together harmoniously as a team. The results also indicate that the individuals responsible for carrying out the campaign employed various tactics for varying objectives at specific points of the campaign. However, peer-education emerged as the most frequently utilized approach for generating consumer acceptance. A team leader provided the following explanation:

There is a peer-group plan that we employ in various formats. For instance peer-educators, who are staffers deal directly with their peers. The bulk of the customers are young…We also use satisfied clients as champions. These are people who have successfully undergone the cut. [KII-01]

The results show that due to the majority of peer-counsellor lacking medical experience, they occasionally had difficulties when faced with queries pertaining to medical competence. In order to address this issue, individuals with medical proficiency collaborated with peer educators, particularly during the implementation of awareness campaigns in secondary schools or universities. The counseling sessions aim to provide explicit guidance to clients on self-management, especially following the incision.

5.3. Peer education competence rating for service providers

The study aimed at gauging the self-perceived competency of peer educators from their own perspective. This was crucial as effective communication is essential for the success of the campaign. The results indicate that 45.1% (n=16)

of the participants considered themselves proficient, whereas 30.6% (n=11) believed they were highly competent in peer education. A mere 14.5% (n=5) of the respondents claimed to possess a reasonable level of competence, whilst 9.8% (n=3) expressed a lack of competence. Every survey respondent indicated that they possessed at least some level of competence. The aforementioned situation was not evident in the target client's perception of the peer-educator's proficiency in interpersonal communication during their contacts. The results reveal that 8.4% (n=21) of the participants evaluated the providers of services as "not competent" or "not competent at all," whereas 44.5% (n=112) professed being "competent" and "very competent." A total of 118 respondents, accounting for 47.1%, expressed their uncertainty by selecting the option "Don't know".

The low ranking can be attributed to the statement provided by a key informant, who disclosed that lack of communication proficiency in communication was not a requirement to be employed. Additionally, there is no special training in communication for peer-education recruits. One manager admitted in the key informant interviews that the programme lacked a VMMC-specific communication manual to guide messaging and general interaction between the peer-educators and the clients.

5.4. Discussion

The results demonstrate varied patterns of peer-mediated communication throughout the campaign. The initial strategy employed was group-based peer education, in which peers were featured as examples during community mobilization campaign meetings to share their personal experiences in order to persuade their colleagues to take action. The second model was dyad, which emphasized a face-to-face contact chance. Nevertheless, it remains uncertain if the implementers intentionally championed this. Moreover, the findings did not provide clarity regarding the specific model recommended, whether it was at the management or institutional level. Besides, there were times when the models were mixed in the campaigns. This could be attributed to lack of a communication plan to guide the campaign. One key informant said: “we use whichever comes our way.”

Overall, this study disclosed that peer-based engagement was more common in the field compared to health institutions. This was because there were few cases where the desired consumer voluntarily visited healthcare facilities to acquire information on VMMC. Alternatively, the health workers had to rally them by means of persuasion. Despite acknowledging the difficulty in defining the terms "peer" or "peer-based intervention," this study made a clear distinction between peer-based inter-professional collaboration (IPC) and communication led by external experts. It defined peers as individuals with a shared culture, language and other demographic characteristics, and understanding of the issues faced by their community.

The data suggest that the VMMC project has various types of peer-based communication. However, they are not precisely defined. The initial approach included a peer-education intervention at group level. During community mobilization campaign meetings, peers were given prominence to discuss their own experiences, with the goal of persuading others go for VMMC. The second model utilized a dyad approach, offering a person-to-person chance of interaction. Nevertheless, the study was unable to determine whether this was a deliberate plan by the individuals carrying out the task. Moreover, the data did not provide clarity regarding the prescribed model, between management or institutional levels, or which model was more successful. Furthermore, it was discovered that on certain occasions, the implementers used the models simultaneously were blended within the communication programs.

Most implementers preferred dyad due to its interpersonal aspect and greater accuracy in evaluating outcomes. In his study on peer-advocacy for tobacco-related issues among socially disadvantaged children in Hungary, Szilagyi (2002) suggests that this approach allows peers to customize the intervention to meet the participants' needs and accommodate their schedules and logistical concerns. It can also strengthen a participant's relationship with a peer leader, raise the peer's credibility, and encourage the advised behavior. In his study on peer-led approach to promoting health education in schools, Frantz (2015) found that peer education heal increase knowledge and ultimately assist in changing adolescent risk behaviours.

Nevertheless, although the dyad model is widely regarded as the most effective way for interpersonal health communication, since it involves direct interaction between two individuals, this study argues that relying only on it in the VMMC campaign may not be feasible given the intricate structure of the program. The peer-educators were employed on a casual basis and their compensation was contingent on the number of persons they reached, thereby necessitating them to maximize their outreach efforts. Consequently, they deemed it more practical to address groups rather than adopt the dyad paradigm.

The research further revealed cases in which the distinction between different types of peer-based interpersonal communication was blurred, with a tendency to combine group and dyad methods in workplace events, where lay advisors, commonly referred to as community health volunteers (CHVs), would visit group members who were unable to attend group sessions. This combination offers a solution to the challenge of finding the ideal match between the two models, each with its own operational complexities (Allen et al., 2001).

Whereas there were noticeable discrepancies between the mobilisers and target consumers in certain cases, the term "peer educators" continued to be used to refer to the mobilisers. For example, mobilizers who worked in rural areas, beaches, and trading centres also worked in schools, where their clientele, the pupils, had completely different demographic characteristics. However, the students still referred to them as "peer-educators." The study by Wamoyi et al. (2010) highlighted that age, levels of knowledge, and social situations are crucial aspects that contribute to peer interactions and interpersonal communications. The adverse impact of this was shown to be particularly severe in schools, where the mobilizers faced credibility issues due to their apparent insufficient expertise in the subject matter. Their comprehension of the biology appeared inferior to the pupils'. According to Weber *et al*. (2010), this is a frequently encountered difficulty in peer advocacy. It arises from the difficulty of finding individuals with the same education levels, age, skills, and overall aptitude. According to one source, the peer-educators faced difficulties in certain households or social settings, since they encountered questions that were too complex for their understanding.

This result provides evidence for the concept of homophily in Rogers' (2003) diffusion of innovation theory, which posits that communication is more effortless among individuals with comparable qualities. Furthermore, the peer-educators were frequently perceived as unfamiliar individuals by school communities due to non-integration. This scenario corresponds to the findings of research by UNAIDS (1999) regarding the participation of peer-educators in HIV prevention initiatives in Jamaica. One obstacle encountered when implementing peer-education among industry staff is the need to gain acceptance from industry managers and help them recognize the long-term benefits of peer-advocacy. The placement of strictures makes it challenging for external individuals to organize events for staffers.

To address these challenges, the VMMC implementers devised an approach that involved the collaboration of skilled healthcare professionals, such as nurses and clinical officers, with lay-educators to address more intricate health concerns. This problem has been raised in other studies, questioning the appropriateness of peer educators compared to specialist health practitioners. Simioni et al. (2011) examined the VMMC campaign in Malawi and compared the influence of peers and professionals in a medical context. They found that medical specialists are most effective in communicating the technical details of the procedure and the studies supporting the widespread practice of circumcision. Nevertheless, the peer-educators receive backing from the opposing viewpoint that, while the advantages of the process are clearly shown, it may be challenging to persuade adult males to undergo circumcision, and here is where peers prove their significance and utility. This argument is valid when assessed in relation to the different phases, namely the persuasion phase of behavior adoption (Roger, 2003).

Regarding overall IPC competency, the majority of the service providers, led by the peer educators, rated themselves quite highly. However, the VMMC clients had a different perspective, as only 45 of them believed that the service providers were either competent or extremely competent in IPC. The low ranking can be attributed to the disclosure of a key informant that the lack of communication skills or qualifications was not a requirement for employment. Additionally, there is no special training program focused on communication for individuals hired as peer educators.

The foregoing findings refute the notion that global health communication training, as provided in medical training institutions, is sufficient. Instead it makes a case for case-specific communication training to ensure that the whole implementing contingent understands various aspects of human communication, such as cultural communication, communication across different age groups and genders, as well as message design and delivery. The individuals recruited for the VMMC program received minimal training in communication skills, as their introduction mostly emphasized the clinical and hygienic aspects of performing the surgery. The aforementioned situations corroborate Kim's (1999) assertions that healthcare providers must undergo specialized training in interpersonal skills to effectively overcome their socio-cultural biases and collaborate with clients for improved outcomes. Arguably, effective communication cannot be assumed to happen naturally, but rather requires a carefully designed training program that considers the specific health issue, the intervention, and the distinctive characteristics of the environment in which the intervention is being implemented (Schiavo, 2014). Alotaibi et al. (2018) observe that a significant obstacle that health personnel often encounter in communication is their insufficient training in employing effective communication tactics with patients and families.

6. RESEARCH IMPLICATIONS

Communication has gained considerable traction in healthcare management and is now being mainstreamed in an increasing number of health programmes in Kenya, with interpersonal communication claiming significant recognition due to its ability to facilitate meaningful provider-client transition particularly in largely oral rural resource-deprived population, which lack adequate access to mass media facilities. The importance of peer-based interpersonal communication is no longer in question. However, much remained to be unpacked with regard to the specific factors that contribute to its effectiveness in the context of health communication is important. This therefore opens another veil on the application of peer-education as and will go a long way in providing a significant insights to those involved in the planning and management of health programmes.

7. CONTRIBUTIONS TO SCIENTIFIC COMMUNITY AND FUTURE RESEARCH

This study investigated the role of peer education in the interpersonal communication program within the voluntary medical male circumcision (VMMC) campaign aimed at preventing HIV infections in Siaya county of Kenya. The study contributes to the ongoing debate and research into the role of communication in health management. It perpetuates the argument advanced health communication scholars (e.g Schiavo, 2014; Bernhardt, 2004) that communication has become an important component of health management and, thus, communication personnel can no longer be viewed as peripheral appendage of a health project; but an integral part of a health management continuum (De Araujo & da Silva, 2012). In this regard this study makes a strong case for targeted intervention-specific communication training that takes into account the unique nature of the project and its target beneficiary group. The study has also teased out a specific aspect of interpersonal communication, namely peer-based advocacy establishing specific strengths and pitfalls in its implementation. It therefore rekindles the debate on what communication models fits in different health communication situation.

8. RECOMMENDATIONS

The study on peer-mediated communication during the voluntary medical male circumcision campaign provides valuable insights into how peer-education can be leveraged to heal soar up the VMMC programme. The study identifies targeted training in communication for all the entire field team, and specifically the peer-educators. It therefore recommends that:

i. Communication programmes for health interventions engage communication experts as integral part of the programme implementation team.
ii. Communication competence be prerequisite in the recruitment communication-related work.

iii. In-house training on communication should be an integral part of staff development.

iv. Recognising that the absence of a communication manual and experts within implementation teams as a further hindrance to effective communication, there is needs for health problem- intervention- and target community-specific communication training for peer-educators thereby addressing underlying issues related to culture, stigma, discrimination and demographic factors.

v. A further study be carried out to determine the efficacy of peer-education in interpersonal communication to soar up the uptake of interventions for other health problems especially those that are not stigma prone like malaria, smoking, among others.

9. CONCLUSION

This set out to study investigate the utility of peer-education in the interpersonal dynamics during the execution of the VMMC program in Siaya County of Kenya. The study affirms that peer education has been employed as a component of an interpersonal communication strategy to significantly increase the uptake of male circumcision in Siaya. The main obstacle is lack of a communication manual to provide guidance to the teams responsible for implementing the program. Additionally, the lack of communication experts within these teams contributes to the noticeable ineffective use of peer-education in the program's implementation plan. The lack of regular training on communication also has a negative bearing on the implementation of the entire communication campaign in general and peer-education in particular. This study emphasizes the need of peer-education as an effective tool for infection prevention and control, particularly in scenarios that include socially complicated interventions such as voluntary medical male circumcision (VMMC). If not properly addressed through well-planned peer interaction, VMMC has the potential to become counterproductive.

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