Original Research Article

DOI: https://dx.doi.org/10.18203/2394-6040.ijcmph20223194

Interventional behavioural change communication on HIV and aids related high risk behaviour among fishermen in Homabay and Siaya Counties, Kenya

William Kala Akobi^{1*}, John Paul Oyore¹, George Ochieng Otieno^{2*}

¹Department of Medicine and Community Health, School of Public and Applied Human Sciences, ²Department of Health Informatics, Kenyatta University, Kenya

Received: 30 September 2022 **Revised:** 15 November 2022 **Accepted:** 16 November 2022

*Correspondence: William Kala Akobi, E-mail: akobik@yahoo.com

Copyright: © the author(s), publisher and licensee Medip Academy. This is an open-access article distributed under the terms of the Creative Commons Attribution Non-Commercial License, which permits unrestricted non-commercial use, distribution, and reproduction in any medium, provided the original work is properly cited.

ABSTRACT

Background: Risky sexual behaviors such as sexual concurrency, sexual networks (fish for sex exchange) and unprotected sex, have been reported as the main cause of STIs/HIV infections among the fisher folks. Behavioural change mechanisms such as condom use, and abstinence are some of the interventions used in the prevention HIV/AIDS spread in Kenya.

Methods: This was a follow up study on a three tie quasi-experimental study involving 246 randomly selected fisher folks in Mbita and Usenge along Lake Victoria. The study had three phases. baseline, intervention and endline. The survey used questionnaires to collect data among respondents. Using a sample frame in the beach management unit offices, fisherfolks were identified and invited to participate. Consent was obtained from participants

Results: Various variables were influenced by behavior change communication strategies used. These includes use of condom every time of sexual encounter p>0.000, risk associated with non-condom use p>0.004, stopping using condom and fear of getting HIV/AIDS p>0.009, Sexual intercourse without condom use is dangerous p>0.000, whether remembering to use condom every time of sex is difficult P.0.000, whether they are keeping many sexual partners p=0.004, receiving fish/money in exchange for sex in last six months p=0.006.

Conclusions: Multiple sexual partners, non-condom use, fish for sex, alcohol consumption and circumcision were significantly associated with risky sexual behavior among the Fisherfolks, therefore other existing interventions need to be intensified to supplement behavior change communication to curb sexually transmitted diseases and further spread of HIV and AIDS.

Keywords: HIV/AIDS, Fisherfolks, Risky behaviours, Alcohol consumption, HIV, AIDs

INTRODUCTION

Despite interventions that have been put in place, the rate at which HIV is spreading in Africa is still high. The global presence of HIV possesses a threat to public health and affects the level of productivity of the affected people. AIDS, caused by the HIV, has claimed over 20 million lives since its discovery in 1984. Awareness of Sexually Transmitted Diseases including HIV is reported

to be high, but there is still a lack of understanding of the preventive measures. For instance, most people do not understand other modes of HIV transmission other than sex. The major setback to HIV prevention is the fact that there is no cure, making behaviour change communication (BCC) the most effective Mbita. Behaviour changes communication (BCC) in public health entails ways of passing across health information to individuals, households or communities through media

in such a way that it leads to behaviour change.³ Behavior change communication can be delivered through face-toface forums, electronic mass media and print mass media.³ Despite the increasing literature on the high prevalence of sexually transmitted infections in fisher folks, there is lack of policies to deal with STIs and although Mbitas in high-risk area are present, their effectiveness has not been tested.^{4,5} Sexually transmitted diseases including Gonorrhea (Neisseria gonorrhoeae), Trichomoniasis (Trichomonas vaginalis), Chlamydia (Chlamydiatrachomatis), Syphilis (Treponema pallidum) and HIV are a common occurrence in fisher folks.⁶ The fishermen are at risk of STI/ HIV infections because they are usually involved in risky sexual behavior. Some of the reported risk factors include fish for sex exchange. inconsistent condom use, having many sexual partners, alcohol consumption and low economic status.^{7,8} The prevalence of HIV in Nyanza region in Kenya is 27% among adults.^{9,10} A study done by Kwena among fishermen along Lake Victoria in Kenya reported that 25% were HIV Positive, 10% had syphilis. 11 HIV/AIDS in fishing communities has negative effect on the health of the fishing folks and the fishing communities in general.¹² To reduce the prevalence of these STI's including HIV/AIDS in Kenya, especially among the fisher folks, introduction and assessment of the effects of BCC is necessary. In this digital era, digital platforms such as the mobile phone, video games, social media, sports and blogs can be used for BCC but access to internet is a problem in low-income settings. Studies have been carried out to try and understand the role played by the behavior change theories in bringing a behavior change. 13,14 A review by Poorman and others. 11 It has been reported that the use of text messaging was effective in bringing behavioral change as it was based on the existing theories. 15 Behavior change is affected by factors such as culture, environment, attitudes and personal values of the targeted group. 16 Households might learn from their neighbors and peers and learning from others happens faster than learning by oneself. Education and access to information as well as economic balance of the household often promote behavior change. However, increasing awareness and knowledge is not enough to bring about behavior change, there is need to look at socio-cultural factors that affects behaviour. Therefore, the purpose of this study was to determine the level of awareness on risky sexual behavior among the fisher folks in Mbita-Homabay County and Usenge-Siaya County; determine the prevalence of alcohol and drug abuse and high-risk behavior among the fisher folks; assess the role of circumcision in high-risk behavior among the fisher folks in Mbita Homabay County and Usenge, Siaya County; assess the high-risk behaviors among the fish.

Objectives

The general objective of this study was to assess the effects of behavioral change communication on the high-risk sexual behavior among fisher folks in Homabay

County, Mbita sub-county and Usenge and Siaya County, Kenya. Specific objectives of the study were to determine what is the role of sexual networks and sexual concurrency as a risky sexual behavior among the fisher folks in Mbita, Homa Bay County and Usenge Siaya? And to determine What is the effect of the behavior change communication on the risky sexual behavior among the fisherfolks in Mbita, Homabay County and Usenge, Siaya County?

METHODS

Settings, population and study design

This quasi-experimental study was conducted between March 2019 and September 2020 -as baseline and intervention and endline between January and May 2021, among fisher folks aged 18 years and above. The study was carried out at Mbita-point within the Homa bay County and Usenge-beach in Siaya County, both along Lake Victoria. These areas are composed mainly of the Luo/suba/Banyalla ethic group. HIV is among the most prevalent disease in the regions.¹⁷ The population lives on subsistence farming, small-scale businesses and fishing. Usenge beach is in Bondo Siaya county second to Homabay-in terms of the numbers of Fishermen. Phase one provided data before intervention(baseline). The second phase was a public health intervention, where cartoons, posters, pamphlets, poems and drama were used to convey messages about responsible sexual behavior and proper condom use and the last phase was post intervention phase (end line) where data was collected analyzed and reported. The design was preferred to facilitate testing the effectiveness of behavior communication tools before and after the intervention. For the purposes of comparison, the sites were divided into control sites and intervention sites. Mbita point was the intervention site, while usenge was the control site.

Inclusion criteria

Participants were included in the study if they were fisherfolks who had resided and worked in the study site on fishing related activities for the last six months and were eighteen years old or above.

Exclusion criteria

Participants were excluded if they had not been on the industry for the last six months or had not resided on the site for the last six months and were below eighteen years of age.

Sample size

A sample size of 246 was derived using sample size formula for a single population based on Fishers et al formula.¹⁸ The assumptions made were using a 95% confidence interval, 5% margin of error and 20.0% expected proportion of fisher-folks with awareness of

risky behaviours towards HIV/AIDS adjusted with 10% for incomplete of spoilt questionnaires. The sample size was distributed equally between Mbita and Usenge such that each of the areas got a sample size of 123. Using stratified random sampling technique, participants (including both women and men among the fisher-folks) were selected to participate based on the numbers given by the Beach Management unit (BMU) in each of the landing sites.

Measurement

Data was collected using a structured questionnaire with closed ended pre-coded questions and administered verbally to participants. The questionnaire was divided into four parts; socio-demographic, social networks, knowledge levels of risky sexual behaviours and attitudes of firsherfolks towards risky sexual behaviour. To determine awareness of risky sexual behaviour, the researcher developed 21 items, and to asses knowledge levels 65 items were used and finally to determine attitudes of fisherfolks 6 items were used. Informed consent was sought from the study participants before being allowed to take part in the study. The identity of the study participants remained anonymous and data collected from them were kept confidential in a password secured computer.

Data analysis

The raw data in the questionnaires were checked for consistency, accuracy, and completeness before data entry and data was analyzed using Stata software version 14. STATA suite of survey commands were used to obtain estimates with 95% confidence intervals that took into account the survey design. The data was analyzed using percentages, frequencies, means, mode and medians. The data was presented in table, frequency tables, pie charts and graphs.

RESULTS

A total of 264 questionnaires were distributed to the fisherfolks in the two beach landing sites (Mbita and Usenge). All of the distributed questionnaires were returned for a response rate of 100% (Table 1). The sexual behaviors and condom use among fish folks is depicted in (Table 2). There was a decrease in the proportion of fish folks who had sex with someone they had just met that day or evening by 2.2%, 13.1%, and 0.6% as always, often and sometimes respectively, while there was an increase of those who did not have sex with people, they had met the same day or evening by 16.3%. Regarding use of condoms, there was an increase in those that used condom always, often and sometimes by 7.8%, 3.7% and 5.7% respectively. There was also a decrease of those that did not use condoms by 14.8%. Respondents who indicated that they had unprotected sex under influence of alcohol were 48.3% in Mbita and 67.1% in Usenge. Those who were sexually taken advantage of while under the influence of alcohol were 23.8% in Mbita and 38.3% in Usenge while those had sexually taken advantage of someone while under the influence of alcohol were 18.3% in Mbita and 37.8% in Usenge. The practices of transactional sex among fish folks is depicted in (Table 3).

Table 1: Socio-demographic characteristics of the study participants.

CI	Study site			
Characteristics	Mbita	Usenge		
Age (in years)	_	<u> </u>		
Mean	30.2	32.2		
SD	10	10.1		
Min	17	17		
Max	65	74		
Sex				
Male	68 (51.5)	60 (45.5)		
Female	64 (48.5)	72 (54.5)		
Level of education				
None	35 (26.5)	46 (34.9)		
Primary	52 (39.4)	49 (37.1)		
Secondary	30 (22.7)	26 (19.7)		
Tertiary	15 (11.4)	11 (8.3)		
Religion				
Christian	106 (80.3)	114 (86.4)		
Muslim	8 (6.1)	9 (6.8)		
No religion	18 (13.6)	9 (6.8)		
Fishing business				
Yes	68 (51.5)	76 (57.6		
No	64 (48.5)	56 (42.4)		
Ocuupation				
Boatman	8 (11.8)	6 (7.9)		
Fish Trader/Agent	13 (19.1)	12 (15.8		
Farmer	7 (10.3)	9 (11.8)		
Fisherman	8 (11.8)	1 2(15.8		
Fishmonger	9 (13.2)	5 (6.6		
Trader	9 (13.2)	6 (7.9)		
Smoking	3 (4.4)	7 (9.2)		
Housewife	3 (4.4)	4 (5.3)		
Other occupations	8 (11.8)	15 (19.7)		

There was a decrease in fish folks, who had received money, fish or farms in exchange for sex by 9.5%, who had given gifts, money, fish or farms in exchange for sex by 6.8% and those who received fish, money, gifts or farms in exchange for sex by 10.5%. There was a significant association between the use of condom every time someone had sex in the baseline and endline at the population (Chi-square=33.3352, intervention value<0.0001) (Table 4). There was also a significant association between the baseline and endline in the intervention study and the risk associated with noncondom use (Chi-square=8.4397, p value=0.004). In addition, in the intervention group there was a statistically significant association between knowing that stopping using condoms one would be at a risk of getting infected with HIV/AIDs (Chi⁻square=6.7304, p value=0.009) in the intervention site between baseline and endline. In the

intervention group, there was also a statistical significance between having sexual intercourse without condoms being dangerous and the study period (Chisquare=18.8242 and p ≤ 0.0001). Moreover, results

indicate that in the intervention group, at baseline and endline, remembering to use a every time one had sexual intercourse was statistically significant (Chisquare=21.4065, p ≤ 0.001).

Table 2: Sexual behavior and condom use among the respondents.

Characteristics	Intervention		Control					
Characteristics	Baseline (N=132) Endline (N=127)		Baseline (N=132)	Endline (N=125)				
Had sexual relations with someone you just met that day or evening in the last 6 months, have you								
Always	8 (6.1)	5 (3.9)	15 (11.4)	11 (8.8)				
Often	35 (26.5)	17 (13.4)	20 (15.2)	15 (12.0)				
Sometimes	5 (3.8)	4 (3.2)	4 (3.0)	3 (2.4)				
Rarely	14 (10.6)	13 (10.2)	30 (22.7)	23 (18.4)				
No	70 (53.0)	88 (69.3)	63 (47.7)	74 (59.2)				
If yes, did you use a condom?								
Always	18 (15.8)	30 (23.6)	17 (14.7)	20 (16.0)				
Often	11 (9.7)	17 (13.4)	14 (12.1)	15 (12.0)				
Sometimes	16 (14.0)	25 (19.7)	16 (13.8)	23 (18.4)				
Rarely	9 (7.9)	7 (5.5)	17 (14.7)	23 (18.4)				
No	60 (52.6)	48 (37.8)	52 (44.8)	44 (35.2)				

Table 3: Transactional sex.

	Intervention		Control	Control				
Characteristics	Baseline	Endline	Baseline	Endline				
	(N=132)	(N=127)	N=132)	(N=125)				
Ever received money, fish or farms in exchange for sex								
Yes	49 (37.1)	35 (27.6)	38 (28.8)	31 (24.8)				
No	83 (62.9)	92 (72.4)	94 (71.2)	94 (75.2)				
Ever given gifts, money, fish or farms in exchange for sex								
Yes	63 (47.7)	52 (40.9)	52 (39.4)	44 (35.2)				
No	69 (52.3)	75 (59.1)	80 (60.6)	81 (64.8)				
In the last 6 months have you received fish, money, gifts or farms in exchange for sex								
Yes	46 (34.9)	31 (24.4)	37 (28.0)	29 (23.2)				
No	86 (65.2)	96 (75.6)	95 (72.0)	96 (76.8)				

Additionally, the likelihood of getting HIV or AIDs if one used condom every time they had sex was statistically significant within the intervention group at baseline and endline (Chi-square=9.8995, p value=0.007). There was also a statistical significance among circumcised men having many sexual partners and not getting HIV in the intervention group at baseline and endline (Chisquare=4.7361, p value=0.030). Moreover, in the intervention group there was a statistically significant association between those who kept on changing sexual partners at baseline and endline (Chi-square=8.4586, p value=0.004). There was also a statistically significant association between those who received/given fish, money, gifts or farms in exchange for sex in the last 6 months in the intervention group at baseline and endline (Chi⁻square=7.4792, p value=0.006).

DISCUSSION

In Homabay county, participants that had heard of HIV were 98.5% while in the Siaya site they were 97%. Those who had knowledge on where to test for HIV were 94.7%

in Homabay and 98.5% in Siaya site. Among those who had tested for HIV were 86.4% from Homabay and 92.42% Siaya. Research conducted among teenagers in Finland, reported that alcohol consumption increased the chances of engaging in unprotected sex. 19 This is because alcohol impairs someone's judgment that makes one to have many sexual partners and little or no use of condom. The fish traders and mongers also carry the same susceptibility as the fisher men. This concurs with the findings of this study which showed that respondents who had unprotected sex under influence of alcohol were 48.3% in Homabay and 77.1% in Siaya. Those who were sexually taken advantage of while under the influence of alcohol were 23.8% in Homabay and 38.3% in Siaya while those had sexually taken advantage of someone while under the influence of alcohol were 18.3% in Homabay and 37.8% in Siaya. This high prevalence has been reported to be due to involvement in risky sexual behaviors which are caused by the consumption of alcohol. A research study carried out in the coast of Puducherry, India among the fishing community reported a prevalence of alcohol consumption of 79% and most of them started taking alcohol when they are young.²⁰

Table 4: Comparison on the study population characteristics during baseline and endline.

	Intervention	1			Control			
Characteristics	Baseline (N=132)	Endline (N=127)	Chi square value	P value	Baseline (N=132)	Endline (N=125)	Chi square value	P value
Use a condom every time you have sex								
Yes	41 (31.1)	85 (66.9)	_		46 (34.9)	49 (39.2)	-	0.999
Possibly	48 (36.4)	22 (17.3)	33.34	0.000	38 (28.8)	34 (27.2)	0.0270	
No	30 (22.7)	14 (11.0)	-		33 (25.0)	29 (23.2)	0.0270	
Don't know	13 (9.9)	6 (4.7)			15 (11.4)	13 (10.4)		
Risk associated wi								
Yes	108 (81.8)	119 (93.7)	8.44	0.004	126 (95.5)	120 (96.0)	0.0093	0.923
No	24 (18.2)	8 (6.3)	0.77	0.004	6 (4.6)	5 (4.0)	0.0073	0.723
Condoms can help								
Yes	92 (69.7)	94 (74.1)	0.5964	0.440	119 (90.2)	115 (92.0)	0.0215	0.883
No	40 (30.3)	33 (25.9)			13 (9.9)	10 (8.0)	0.0213	0.003
Stopping using con			getting infe	cted with				
Yes	96 (72.7)	109 (85.8)	6.7304	0.009	104 (78.8)	99 (79.2)	0.0066	0.935
No	36 (27.3)	18 (14.2)	0.7304	0.009	28 (21.2)	26 (20.8)	0.0000	0.933
Having sexual inte	ercourse withou	out condoms is	dangerous					
Yes	99 (75.0)	120 (94.5)	18.8242	0.000	105 (79.6)	102 (81.6)	0.1729	0.678
No	33 (25.0)	7 (5.5)	10.0242	0.000	27 (20.5)	23 (18.4)	0.1729	0.076
Enjoy sexual inter	course							
When you use condoms	37 (28.0)	46 (36.2)	1.9938	0.158	30 (22.7)	52 (41.6)	10.5253	0.001
When you do not use condoms	95 (72.0)	81 (63.8)	1.9938		102 (77.3)	73 (58.4)		
Remembering to u	se a condom	every time you	have sexual	intercou	irse			
Very difficult	27 (20.5)	15 (11.8)			21 (15.9)	14 (11.2)		
Somewhat difficult	74 (56.1)	47 (37.0)	21.4065	0.000	56 (42.4)	52 (41.6)	1.4989	0.473
Not difficult at all	31 (23.5)	65 (51.2)	_		55 (41.7)	59 (47.2)		
Likelihood of getti	ng HIV or Al	DS if you use a	a condom ev	ery time	you have sex			
Likely	24 (18.2)	11 (8.7)			36 (27.3)	37 (29.6)	1.0259	0.599
Somewhat Likely	60 (45.5)	81 (63.8)	9.8995	0.007	72 (54.6)	71 (56.8)		
Not likely at all	48 (36.4)	35 (27.6)	_		24 (18.2)	17 (13.6)		
Ever had unproted	cted sex under	the influence	of alcohol					
Yes	43 (48.3)	65 (51.2)		0.640	51 (67.1)	86 (68.8)	0.0359	0.85
No	46 (51.7)	62 (48.8)	0.2070	0.649	25 (32.9)	39 (31.2)		
Circumcised men			o protect the	emselves				
I Agree	20 (15.2)	10 (7.9)			17 (12.9)	12 (9.6)	2 4050	
I Disagree	85 (64.4)	97 (75.8)	F 11.15		84 (63.6)	91 (72.8)		0 :==
Unsure	10 (7.6)	8 (6.3)	5.1142		11 (8.3)	8 (6.4)	2.4858	0.478
I Don't Know	17 (12.9)	12 (9.4)		0.164	20 (15.2)	14 (11.2)		
Circumcised men			ers and not		,	, ,		
I Agree	13 (9.9)	4 (3.2)			11 (8.3)	6 (4.8)	1.005	0.255
I Disagree	119 (90.2)	123 (96.8)	4.7361	0.030	121 (91.7)	119 (95.2)	1.2976	0.255
Keep changing your sexual partners								
Yes	82 (82.0)	80 (63.0)	0.4505	0.00:	68 (74.7)	91 (72.8)	0.0496	0.824
No	18 (18.0)	47 (37.0)	8.4586	0.004	23 (25.3)	34 (27.2)		
	. (0.0)	()						

Continued.

	Interventio	n			Control			
Characteristics	Baseline (N=132)	Endline (N=127)	Chi square value	P value	Baseline (N=132)	Endline (N=125)	Chi square value	P value
Number of sexua			n sexual into	ercourse v				
One	41 (31.1)	61 (48.0)			50 (37.9)	50 (40.0)	_	0.797
Two	43 (32.6)	33 (25.0)	8.6171		35 (26.5)	32 (25.6)	1.0185	
Three	26 (19.7)	21 (16.5)	0.0171		21 (15.9)	15 (12.0)	1.0165	
Four	22 (16.7)	12 (9.5)			26 (19.7)	28 (22.4)		
Currently using a	any contrace	ptives to delay o	r avoid pre	gnancy				
Yes	96 (72.7)	105 (82.7)	3.6871	0.055	97 (73.5)	95 (76.0)	0.2149	0.643
No	36 (27.3)	22 (17.3)	3.06/1	0.055	35 (26.5)	30 (24.0)	0.2149	0.043
Used Condom the	e last three ti	mes you had sex	ĸ					
Yes	56 (42.4)	71 (55.9)	_		60 (45.5)	73 (58.4)		
No	72 (54.6)	53 (41.7)	4.7077	0.095	66 (50.0)	48 (38.4)	4.3253	0.115
Don't Know	4 (3.0)	3 (2.4)			6 (4.6)	4 (3.2)		
Number of times			imes they h	ad sex				
Three times	47 (71.2)	108 (85.0)			38 (57.6)	87 (69.6)		0.359
Two or fewer	19 (28.8)	19 (15.0)	3.4131	0.065	24 (36.4)	35 (28.0)	2.0474	
Never	0	0			4 (6.1)	3 (2.4)		
Had sexual relati	ons with som		et that day	or evening	g in the last 6	months		
Always	8 (6.1)	5 (3.9)			15 (11.4)	11 (8.8)	2.9439	0.567
Often	35 (26.5)	17 (13.4)			20 (15.2)	15 (12.0)		
Sometimes	5 (3.8)	4 (3.2)	9.0287	0.060	4 (3.0)	3 (2.4)		
Rarely	14 (10.6)	13 (10.2)			30 (22.7)	23 (18.4)		
No	70 (53.0)	88 (69.3)			63 (47.7)	74 (59.2)		
Use a condom wh	nen having se	xual relations w	ith someon	e you just	met that day	or evening in t	he last 6 m	onths
Always	18 (15.8)	30 (23.6)			17 (14.7)	20 (16.0)	2.3664	0.669
Often	11 (9.7)	17 (13.4)			14 (12.1)	15 (12.0)		
Sometimes	16 (14.0)	25 (19.7)	6.8112	0.146	16 (13.8)	23 (18.4)		
Rarely	9 (7.9)	7 (5.5)	_		17 (14.7)	23 (18.4)		
No	60 (52.6)	48 (37.8)	_		52 (44.8)	44 (35.2)		
Ever received mo			ge for sex		<i>y</i> = (<i>y</i>)	(30.2)		
Yes	49 (37.1)	35 (27.6)			38 (28.8)	31 (24.8)	0.5199	
No	83 (62.9)	92 (72.4)	2.7007	0.100	94 (71.2)	94 (75.2)		0.471
Ever given gifts,			ange for sex	ζ	(.)	, . (.)		
Yes	63 (47.7)	52 (40.9)		0.272	52 (39.4)	44 (35.2)	0.4826	0.487
No	69 (52.3)	75 (59.1)	1.2061		80 (60.6)	81 (64.8)		
Received/given fi			exchange for	r sex in th				
Yes	46 (34.9)	31 (24.4)		0.006	37 (28.0)	29 (23.2)	0.7849	0.376
No	86 (65.2)	96 (75.6)	7.4792		95 (72.0)	96 (76.8)		
•	30 (30.2)	, , , , , , , ,			20 (.2.0)	, , , , , , ,		

This agrees with findings from the current study which shows that the respondents who took alcohol were 64.4% in Homabay and 59.1% in Siaya county. Results from this study indicates that those who had received money, fish or farms in exchange sex were 37.1% and 28.8% and those that had given gifts, money, fish or farms for sex were 47.7% and 39.4% for Homabay and Siaya respectively. Those that had received gifts, money, gifts and farms for sex within the last 6 months were 34.9% and 28% for Homabay and Siava. This is supported by literature which shows that fish for sex is a form of sexual network that is common among the fisher folks. This is an agreement between fishermen and female fishmongers in which they engage in sexual activities in exchange for constant supply of fish by the fishermen. This makes them to interact with women who are directly or indirectly involved in fishing and selling fish. 4,12,21 These interactions with the opposite sex leads to the formation of sexual networks such as the fish for sex relationships (Jaboya) which accelerates the transmission of HIV. Literature indicates that factors such as lack of male circumcision and cultural practices such as wife inheritance have been associated with the high prevalence of HIV and STIs in Counties along lake Victoria.²² This agrees with the findings from this study where 18.9% in Homabay and 15.9% in Siaya of the respondents indicated that there were community laws in place that would make it more likely for them to change their partners frequently, while 20.5% and 16.7% others indicated that there were cultural rules or taboos for them to change their sexual partners in Homabay and Usenge Siaya respectively. Condom use, proper condom use,

frequency of condom use and transactional sex use were the critical variables here. Condom as a form of contraceptive was assessed to see whether it is used among the fishermen regularly, properly and frequently. Knowledge and contraception use among the fisher folks is described in table 7 above. Those who indicated that they were using contraceptives to delay or avoid pregnancy we 72.7% and 73.5% in Homabay and Siaya respectively. The most commonly used contraception methods were male condoms at 38.5% and 35.1%, followed by implants at 18.8% and 12.4% in Homabay and Siaya respectively. Those that used condom in their last sexual encounters were 42.4% and 45.5%, those that used condom more than three times were 71.2% and 57.6% in Homabay and Siaya respectively. The reasons were birth Usenge with 11.4% and 20.5%, disease prevention 19.7% and 31.8% in Homabay and Siaya respectively. Findings from this study indicates high prevalence of unprotected sex among fishermen, because from the respondents those that used condom in their last sexual encounters were 42.4% and 45.5%, those that used condom more than three times were 71.2% and 57.6% in Homabay and Siaya respectively. This is in line with literature which shows that risky sexual behaviors such as unprotected sex, have been reported as the main cause of STI/ HIV infections among the fisher folks.⁸ Literature shows that most of the female fish traders who engage in 'fish for sex' are of low socio economical position as most of them are divorced, widowed, or single. Most of the time, the sex doesn't involve the use of a condom, which makes fish traders and the fisherfolk at risk of contracting STI's including HIV.¹⁵

Limitations

Underlying issues like alcohol consumption, and Condom use which were measured by self-reporting can compromise validity, and therefore an alternative method such as Bogus pipeline method could be of help. (On this method, the person whose attitude or emotion is being measured is told that they are being measured by a machine or polygraph detector, resulting into more truthful answers.

CONCLUSION

The study has highlighted alarming number of proportions of the fishermen involved in unprotected multiple sexual partners, sex under the influence of alcohol, poor and non-condom use which are a risky to contracting HIV and other sexually transmitted diseases. There has been a significant decline in new infections and AIDS-related deaths. This is attributable to both biomedical and socio-behavioral interventions. Nonetheless, a lot more efforts are required to achieve sustainable develop goal number 6 of halting and start reversing HIV infections. Some of these efforts may need to focus on understanding the correlates of high-risk behaviour and design targeting the fisherfolks, in combating HIV risk factors themselves. Multiple sexual

partners, non-condom use, fish for sex, alcohol consumption and circumcision which is seen as a double edge sword were significantly associated with risky sexual behavior, behavior change communication strategy has been seen to be useful, therefore other existing interventions need to be intensified to supplement it, to curb sexually transmitted diseases and further spread of HIV and AIDS. Advocating for the improvement of fisherfolks groups/chamas (self-help groups) or their participation in existing interventions, including BCC to be considered for its benefits and potential outcomes for the fishermen themselves. The nature and scope of the intervention and the organizational form should bear in mind the aims of the development intervention and the challenges that fishermen face. For example, existing interventions like counselling sessions take time, and for a fisherman this is money lost. Participatory approaches and action research can serve to catalyze positive transformations, in the fight towards reduction of sexually transmitted diseases and new HIV infections. To do so, an in-depth knowledge of power asymmetries (between county, national, development partners, NGOs and the development of spaces of participation of fisherfolks themselves in their social setting is key.

ACKNOWLEDGEMENTS

Authors would like to thank the participants that completed the survey questions. Authors would also like to thank the chairman, department of community health and epidemiology, the dean, school of public health and applied human sciences, and the dean graduate school of Kenyatta University.

Funding: No funding sources Conflict of interest: None declared

Ethical approval: The study was approved by the

Institutional Ethics Committee

REFERENCES

- Voeten HACM. HIV in Kenya: Sexual behaviour and quality of care of sexually transmitted diseases. Erasmus University Rotterdam. Available at http://hdl.handle.net/1765/7583. Accessed on 20 November 2021.
- 2. Muturi NW. Communication for HIV/AIDS prevention in Kenya: Social–cultural considerations. J Health Commu. 2005;10(1):77-98.
- 3. Koenker H, Keating J, Alilio M, Acosta A, Lynch M, Nafo-Traore F. Strategic roles for behaviour change communication in a changing malaria landscape. Malaria J. 2014;13(1):1.
- 4. Kissling E, Allison EH, Seeley JA, Russell S, Bachmann M, Musgrave SD, Heck S. Fisherfolk are among groups most at risk of HIV: cross-country analysis of prevalence and numbers infected. AIDS. 2005;19(17):1939-46.
- Newman L, Rowley J, Vander Hoorn S, Wijesooriya NS, Unemo M, Low N, Stevens G, Gottlieb S, Kiarie

- J, Temmerman M. Global Estimates of the Prevalence and Incidence of Four Curable Sexually Transmitted Infections in 2012 Based on Systematic Review and Global Reporting. PLoS One. 2015;10(12):e0143304.
- 6. Carbery SB, Malekzadegan Y, Sedigh Ebrahim-Saraie H, Heidari H, Sabet M, Bagheri A, et al. Gonorrhea and syphilis co-infection and related risk factors in HIV patients from Shiraz, South of Iran. Caspian J Intern Med. 2018;9(4):397-402.
- 7. Global report on AIDS 2012. Available at: https://issuu.com/unaids/docs/20121120_unaids_global_report. Accessed on 20 November 2021.
- Kwena ZA, Bukusi EA, Ng'ayo MO, Buffardi AL, Nguti R, Richardson B, Sang NM, Holmes K. Prevalence and risk factors for sexually transmitted infections in a high-risk occupational group: the case of fishermen along Lake Victoria in Kisumu, Kenya. Int J STD AIDS. 2010;21(10):708-13.
- 9. UNAIDS, 2012, Global Report AIDS epidemic 2013. Available at: https://issuu.com/unaids/docs/20131 120_unaids_global_report. Accessed on 20 November 2021.
- Kwena AZ. Sexual concurrency among married couples in the fishing communities along Lake Victoria in Kisumu County, Kenya. Caspian J Intern Med. 2013;23:32-8.
- 11. Allison EA, Seeley JA. HIV and AIDS among fisherfolk: a threat to 'responsible fisheries'?. Fisheries. 2004;5:215-34.
- 12. Thompson EL, Vamos CA, Daley EM. Physical activity during pregnancy and the role of theory in promoting positive behavior change: A systematic review. J Sport Health Sci. 2017;6(2):198-206.
- 13. Lopez LM, Tolley EE, Grimes DA, Chen M, Stockton LL. Theory-based interventions for contraception. Cochrane Database Syst Rev. 2013;(8):CD007249.
- 14. Kwena ZA, Cohen CR, Sang NM, Ng'ayo MO, Ochieng JH, Bukusi EA. Fishermen as a Suitable Population for HIV Intervention Trials. AIDS Res Treat. 2010;2010:865903.

- Green J, Tones K. Health Promotion: Planning and Strategies. 2nd edn. London: Sage Publications; 2010.
- 16. Report to the people, 2013. Available at: https://www.usaid.gov/sites/default/files/documents/ 1860/USAID%20Kenya%202013%20Annual%20Re port.pdf. Accessed on 20 November 2021.
- 17. Fischer et al. Self-designing clinical trials. Stat Med. 2003;17:1551-62.
- 18. Tumwesigye NM, Atuyambe L, Wanyenze RK, Kibira SP, Li Q, Wabwire-Mangen F, Wagner G. Alcohol consumption and risky sexual behaviour in the fishing communities: evidence from two fish landing sites on Lake Victoria in Uganda. BMC Public Health. 2012;12:1069.
- 19. Nagoli J, Holvoet K, Remme M. HIV and AIDS vulnerability in fishing communities in Mangochi district, Malawi. Afr J AIDS Res. 2010;9(1):71-80.
- 20. Chinnakali P, Thekkur P, Manoj Kumar A, Ramaswamy G, Bharadwaj B, Roy G. Alarmingly high level of alcohol use among fishermen: A community based survey from a coastal area of south India. J Forensic Leg Med. 2016;42:41-4.
- Agot KE, Vander Stoep A, Tracy M, Obare BA, Bukusi EA, Ndinya-Achola JO, et al. Widow inheritance and HIV prevalence in Bondo District, Kenya: baseline results from a prospective cohort study. PLoS One. 2010;5(11):e14028.
- 22. Ng'ayo MO, Bukusi AE, Koutsky LA, Rowhani-Rahbar A, Feng Q, Kwena ZA, et al. Epidemiology of human papillomavirus infection among fishermen along Lake Victoria Shore in Kisumu District, Kenya. Sexually Transmitted Infect. 2015;84(1):62-6.

Cite this article as: Akobi WK, Oyore JP, Otieno GO. Interventional behavioural change communication on HIV and aids related high risk behaviour among fishermen in Homabay and Siaya Counties, Kenya. Int J Community Med Public Health 2022;9:4368-75.