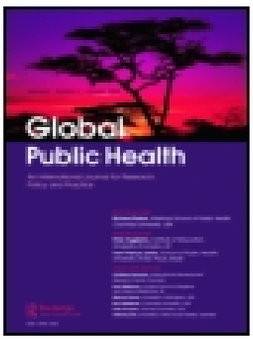

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Implementation and evaluation of a culturally grounded group-based HIV prevention programme for men who have sex with men in Ghana

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ABSTRACT

This study examined the feasibility and acceptability of an evidence-based HIV prevention programme for men who have sex with men (MSM) in Ghana through a participatory approach. The programme involved 57 self-identified adult cisgender MSM and led by a community-based organisation in collaboration with local nurses. We used an explanatory mixed-method design to evaluate the programme. We computed descriptive statistics, relative frequency, and paired proportionate analysis for the survey data and subjected the focus groups data to summative content analysis. Five key themes from the qualitative data indicated strong evidence of the acceptability and efficacy of the programme among MSM. The programme contributed to building social support networks, a sense of social justice among MSM, and facilitated the development of personalised HIV prevention menus by the participants. We observed increases in HIV testing (from 4% to 17%) and increases in the relative frequency of condom use for anal, oral, and vaginal sex. The programme served as an example of a successfully implemented culturally grounded intervention that has the potential to increase HIV and STI awareness and prevention among MSM in Ghana and other highly stigmatised environments.

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Background

Men who have sex with men (MSM) in Ghana remain overrepresented in HIV infections. The HIV prevalence among MSM exceeds the HIV prevalence in the general population by more than seven times. For instance, the most recently available surveillance data estimated a total of 55,000 MSM with an HIV prevalence among MSM at 18.1%, compared to the national prevalence rate of 1.6% (Human Sciences Research Council, 2017). The high prevalence of HIV among MSM characterises

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them as a high priority population for HIV prevention. Nonetheless, Ghana has had limited progress in linking MSM to clinical services due to the stigma and discrimination by health workers against same-sex sexual behaviour and MSM living with HIV (Kushwaha et al., 2017; Ghana AIDS Commission, 2016a). HIV testing among MSM remains low, with only approximately one-quarter (26.3%) of the population reporting having had an HIV test and knowing their status – both behaviours, which require interactions with healthcare workers (Ghana AIDS Commission, 2016, 2017).

Individual-level behaviours also influence the high rates of HIV among MSM, as they influence the likelihood of exposure to the virus. HIV among MSM remains commonly transmitted via condomless sexual intercourse. Behaviours such as substance use and exchange of sex for money or material resources also serve as factors that influence HIV transmission but do not directly transmit HIV (Ghana AIDS Commission, 2016; Ghana Statistical Service et al., 2015; Sabin et al., 2013; Sabin et al., 2018). Structural-level factors further contribute to MSM's vulnerabilities to poor health outcomes. Stigma against same-sex sexual behaviours, sexualities, and relationships stand institutionalised and sanctioned in the country. Thus, MSM face social stigma, criminalisation, and potential harassment by law enforcement (Laar & DeBruin, 2017). Evidence from research in Ghana suggests that stigma also contributes to low-rates of testing among MSM and undermines their ability to enact safer sexual behaviours (Sabin et al., 2013; Ghana AIDS Commission, 2016b, 2017; Kushwaha et al., 2017; President's Emergency Plan for AIDS Relief [PEPFAR], 2012; Ogunbajo et al., 2018). The multi-level stigma, high HIV prevalence, and other behaviours that can increase the likelihood of exposure to HIV among MSM in Ghana necessitate the implementation of evidence-based HIV prevention programmes that are socially-affirming and culturally-grounded to promote healthy behaviours that can contribute to population reductions in HIV incidence.

Previous HIV and sexual health studies in Ghana and other African countries indicate that MSM infrequently use condoms during anal sex and underutilise HIV and sexually transmitted diseases services, especially HIV testing services (Sabin et al., 2013; Sabin et al., 2018). For example, structured survey data of a non-probability sample of MSM in Ghana ($N = 137$) revealed that the men's relative frequency (*rel. f.*) of condom use was higher when they engaged in vaginal sex, (*rel. f.* = 0.75 of vaginal sex episodes) – compared to when they had anal sex (*rel. f.* = 0.50), presumably with men (Nelson et al., 2015). Forty percent (40%) of the sample did not use condoms with new sexual partners, and only 38% indicated that they always used condoms with all new partners (Nelson et al., 2015). The men in the sample also scored low on validated scales measuring HIV prevention, transmission, and treatment knowledge (66%) and even lower (51%) on prevention, transmission, and treatment knowledge regarding non – HIV sexually transmitted infections (Nelson et al., 2015). Qualitative findings from 22 focus groups of MSM in Ghana showed a general disregard for condoms, lubricant (which decreases the likelihood of condom breakage), and HIV testing (Kushwaha et al., 2017). The participants associated their negative attitudes towards HIV prevention activities and services to inadequate access and misconceptions, such as doubt on the efficacy of prevention tools (Kushwaha et al., 2017).

To date, the HIV prevention evidence-based research on MSM in Ghana remains dominated by epidemiological and observational studies that describe the epidemic or characterise factors that influence the epidemic. Despite the documented need (Kushwaha et al., 2017), there exist no known studies in Ghana that report on programmes that move beyond the essential observational work and educational programmes towards the implementation and evaluation of behavioural intervention programmes. Also, no research/intervention focuses on supporting the HIV prevention efforts among MSM by increasing the acquisition of information, behavioural skills, and resiliencies to social stigmas. As such, this project aimed to implement and evaluate the acceptability and feasibility of an evidence-based HIV prevention programme for MSM led by a community-based organisation in collaboration with local nurses in Ghana through a participatory approach. We also assessed the impact of the programme on sexual health knowledge, attitudes, and

behaviours, as well as on the experiences of daily living among MSM in Ghana, where same-sex sexualities are highly stigmatised.

Methods

Design

The project was an implementation of a participatory HIV prevention programme for MSM in Ghana. The programme was implemented four times over 60 days, starting July 11, 2014, and evaluated using a mixed-method design that included a structured pre–post-test survey and post-only focus group data. We supplemented these data with detailed reports produced from each of the four programme deliveries.

Overview of Nyansapo programme

Nyansapo, a term in the Twi language of Ghana, translates to 'wisdom knot' in English. The Nyansapo name refers to the culturally grounded HIV prevention programme that we modelled on the Many Men, Many Voices (3MV) intervention. The 3MV intervention comprises a seven-session participatory intervention designed to address the unique psychosocial and behavioural factors that influence HIV risk among Black MSM. The 3MV intervention appeared in the U.S. Centre for Disease Control and Prevention's Compendium of Evidence-Based Interventions and designated as a 'best-evidence' intervention (Herbst et al., 2014; Wilton et al., 2009). The 3MV intervention was previously tested in a randomised controlled trial, which demonstrated its efficacy for reducing the number of sexual partners, episodes of condomless anal sex, and increasing HIV testing (Wilton et al., 2009).

Priorities on Rights & Sexual Health (PORSH) – a non-governmental organisation based in Accra Ghana, implemented the Nyansapo programme. PORSH focuses on improving the health and human rights of LGBTQ people in Ghana. PORSH staff delivered the programme throughout 3-days in a weekend out-of-town retreat format at a secure private non-disclosed location in the central region of Ghana. The retreat format reflected the seven sessions delivered in the original 3MV RCT study (Wilton et al., 2009). To make it culturally responsive, we included certain activities such as excursions to important sites such as the Cape coast castle to connect current issues with past colonial governance, and to include contents relevant to the Ghanaian culture. Such contents include human rights, security, and managing stigma and human behaviours. Details of the changes are explained elsewhere. Two group facilitators from the local community of MSM and a local registered nurse with expertise in sexual health led the programme discussion sessions. Identifying group facilitators from within the group helped to maintain a safe and comfortable environment for sharing of embodied knowledge as well as the men's personal life experiences.

Moreover, the collaboration with nurses helped provide support for the group facilitators on addressing certain questions from the programme participants that required a more complex clinical knowledge base. The facilitators received the training from the University of Rochester Centre for Community Practice on the 3MV intervention content and the intervention manual and materials necessary for the various 3MV intervention exercises. More information on 3MV can be found online at https://www.cdc.gov/hiv/effective-interventions/prevent/many-men-many-voices/

Programme recruitment

The programme targeted adults (at least 18 years old), self-identified cisgender MSM, and HIV-negative MSM or MSM who did not know their HIV status – we did not, however, confirm the participant's self-reported HIV status because the focus was on behaviour and education. Thus,

we had a few HIV positive participants who received invites to participate from their peers. We advertised to recruit more non-HIV negative MSM because several programmes targeted such population already; nonetheless, having both populations were necessary for understanding the lived experiences of MSM and can contribute to behavioural change in general. There were no geographic restrictions on participation; however, participants needed to be able to reach the PORSH office in Accra to board the chartered bus to the private retreat location for the programme. We primarily recruited programme participants through a snowball sampling approach (Shaghaghi et al., 2011). For the first programme delivery, PORSH identified MSM from among their existing client base and via contacts made during outreach activities. Referrals of peers heavily drove attendance for the remaining programmes, by men who had participated in one of the prior programme deliveries.

Data collection and measures

Surveys

Structured self-administered survey data were collected at three-time points: baseline, immediately after completing the Nyansapo programme, and one week after completion of Nyansapo using a touchscreen computer tablet. PORSH programme assistants were available to assist any participant with questions on how to navigate the survey. Participants also had the option to have the survey administered to them by the programme assistant. The survey included demographic items such as age, ethnicity, education, and marital status. It also included items that assessed health and behavioural variables such as HIV/STI knowledge, self-reported HIV status, HIV testing history, sexual attraction, condom use history, and the number of episodes of oral, vaginal, and anal sex.

Focus groups

Some Nyansapo participants returned to the PORSH office one week after completing the weekend retreat to participate in a focus group with the other men who participated in their Nyansapo delivery. Focus groups were led by PORSH staff trained in focus group facilitation techniques. One facilitator was primarily responsible for guiding the discussion while the other facilitator supported focus group logistics (e.g. monitoring the audio-recording, distributing financial incentives). PORSH staff were not permitted to conduct focus groups with the same group of men to whom they delivered the Nyansapo programme. This decision was made to ensure that the men could be forthcoming about any weaknesses in the programme delivery, especially if the feedback implicated the specific Nyansapo facilitators.

The focus groups were digitally audio-recorded for subsequent transcription and analysis for programme evaluation. All focus groups were conducted using a semi-structured guide developed by the second and fourth authors (LEN and FB). The focus group guide was used to ensure consistency in the topics and sequence across the groups (Côté-Arsenault & Morrison-Beedy, 2005). The focus group guide started with questions that explored the men's overall impressions of Nyansapo. Sample questions included: 'What did you think about Nyansapo?' 'What were some of your experiences like?' 'What things did you learn?' 'What were the most helpful parts of Nyansapo?' and 'What were the least helpful parts of the programme? Please explain'. The focus group then proceeded to elicit feedback on their experiences in each of the seven sessions. The guide also included brief prompts that the facilitator could read to serve as a memory aid to the participants about the content of the seven sessions, thus increasing the validity and reliability of their recall responses.

Analytic strategy. Quantitative. We coded responses on sexual orientation as 1 = men only, 2 = women only, and 3 = both men and women. We collected data on the worry about HIV and STDS as ranked variables, 1 = not worried at all, to 10 = never worried at all. History of HIV test as 1 = yes, 2 = no, 3 = I don't know, and 4 = I do not wish to answer. For self-reported HIV status, we coded it as 1 = I am living with HIV, 2 = I do not have HIV, 3 = I did not return to the clinic to

learn my HIV status, and 4 = I do not wish to answer this question. Sexual intercourse variables for anal, vaginal, and oral sex, as well as condom use, were continuous numeric variables with participants reporting the counts of sexual intercourse and the number of condoms used in the past three months to the survey.

We analysed the quantitative data from the structured survey using Stata I.C. version 16. We computed descriptive statistics using tabulation and summary of data to report the proportions, means, and standard deviations at a 95% confidence interval. Additionally, we calculated the relative frequency of condom use (*rel. f.* = f/n) by dividing the number of sexual episodes (n) into the number of times that condoms were used (f) for specific anatomical sites (i.e. oral, vaginal, anal).

Qualitative. We subjected the qualitative data from the focus groups to summative content analysis. Focus groups were transcribed verbatim by programme assistants at PORSH. A minimum of three co-authors reviewed each focus transcript: Focus groups 1 (A.O., AOO, AS, LEN), 2 (AOO, G.M., MRA), 3 (A.O., N.I., MRA) and 4 (G.M., LEN, MRA). Before reviewing the focus group transcript, each author read the detailed documentary report of the retreat that corresponded to their assigned focus group. After reading the report and transcript, each co-author independently generated summaries (25–50 lines of text) of the focus group's main points. The co-authors produced summaries that responded to the analytic question: 'What were the salient experiences of the men who participated in Nyansapo?' All summaries were uploaded into a secure online server.

The second author (LEN) read all the summaries and organised the main points of each summary into a data display spreadsheet created in Microsoft Excel (Miles & Huberman, 1994), a technique that our team has used successfully in previous qualitative analyses (Kushwaha et al., 2017; Nelson et al., 2011). The spreadsheet facilitated the analysis of clusters within the qualitative data. It facilitated the identification of the most frequent main points identified by the reviewers for a specific focus group and across the four focus groups. There were 20 main points identified. Using the resulting data display spreadsheet, we condensed the number of themes by selecting reviewer-identified main points that had the highest frequency within a focus group (2 out of 3 reviewers) and across the majority of focus groups (3 out of 4 groups). This process produced seven themes.

Given that the purpose of the project evaluation was to inform and improve programme delivery, we then applied less strict criteria to the remaining 13 low-frequency main points. To identify data regarding the programme delivery approach and areas for programme improvement, we further selected a low-frequency main point if any reviewer identified the main point in at least two of the groups. This process produced four additional themes making it a total of 11 themes, which were then reviewed and discussed by the first and second authors to group the themes into five thematic clusters of main points.

Results

Descriptive statistics of participants

Fifty-seven participants completed the baseline survey; however, one participant did not participate in the programme due to an illness. Fifty-two (52) completed the immediate post-programme survey, and 37 completed the 1-week post-programme survey. As shown in Table 1, participants were between 18 and 44 years old. The vast majority of the sample was non-married (98%) and young (96% was 35 years old or younger and 36% of which were under the age of 25). The participants represented a range of ethnic groups in Ghana, with the majority (63.16%) identifying as Akan. The sample included mostly educated persons with approximately 70% reporting that they completed high school, and the majority of them (54%) attained a university or polytechnic degree. Most men (72%) reported that they were sexually attracted to both men and women and the remaining participants reported sexual attraction for only men. While most men (80%) reported

Table 1. Demographics.

Variable	Percentage	Variable	Percentage
Age (years)		*Education*	
18–24	36.84	No formal education	0
25–34	59.65	Primary (6th)	0
35–44	3.51	Elementary (Standard 7th)	1.75
45 and over	0	Senior High School	26.32
Ethnicity		University/Polytechnic	54.39
Akan	63.16%	Diploma course	7.02
Ga	7.02	Other certificates	10.53
Ewe	19.30	*Marital Status*	
Hausa	1.75	Married	1.75
Others	8.77	Not Married	98.25
HIV Status		*Most Recent HIV Test*	
Negative	61.40	Within the last 7 days	3.51
Positive	8.77	Within the last 1 month	7.02
HIV status unknown	10.53	Within the last 3 months	26.32
Decline to answer	19.30	Within the last 6 months	24.56
Ever Tested for HIV		More than 6 months ago	31.58
No	7.02	*Sexual Attraction*	
Yes	82.46	Men Only	28.07
		Women Only	0
		Both Men and Women	71.93

having been tested for HIV at least once, in their lifetime, only 26% had a recent HIV test (within the past 30 days before programme participation).

Comparison of pre- and post-programme survey results

Table 2 contains the comparison of pre- and post-programme scores of psychosocial, knowledge, and attitudinal variables. There were no significant changes between baseline and post-programme scores. Nonetheless, the *rel. f.* of condom use increased from baseline to 1-week post-programme for all three variables; anal sex, oral sex, and vaginal sex (Table 3). At the baseline, the *rel. f.* of condom use for anal sex was .80 and increased to .95 one week after Nyansapo. Similar results were observed for condom use for oral (*rel. f.* = 0.43–0.59) and vaginal (*rel f.* = 0.74–0.87) sex.

Table 4 contains the proportion of survey responses for HIV testing readiness among participants at baseline and 1-week post-programme. More participants indicated to have started testing regularly in the 1-week post-programme survey compared to the baseline survey (4% vs. 17%). The proportion of participants who demonstrated a lack of readiness to test regularly reduced by 2% from baseline to 1-week post-programme. Additionally, the proportion of participants who reported having started HIV testing increased by 13% between baseline and 1-week post. The proportion of MSM who reported that they were regular HIV testers decreased by 10% from baseline and 1-week post-programme (Baseline = 47%, post-intervention = 37%). Meanwhile, all participants thought it is necessary to test regularly post-intervention compared to baseline (2%)

Qualitative experiences of participating in Nyansapo

Out of the 57 participants, a total of 32 participated in the focus group discussions. Fives themes were identified from the focus group data. One theme concerns the environment created at the Nyansapo programme. Two themes related to the impact of the Nyansapo content on the participants' knowledge, attitudes, and behaviours. One theme is regarding the format used to deliver the programme content, and the final remaining theme is regarding strategies to optimise and sustain the impact of Nyansapo. The five themes and related sub-categories are presented in Table 5.

Table 2. Comparison of pre and post- programme scores on psychosocial and behavioural variables.

Variable	Baseline ($n = 57$) Proportions	1-Week Post ($n = 35$)
How worried are you about getting HIV/AIDS? (Scale 1–10)		
1 (Not at all)	0.29	0.23
2	0.06	0.03
3	0.03	0.03
4	0.06	0.03
5	0.00	0.03
6	0.14	0.03
7	0.03	0.03
8	0.03	0.24
9	0.09	0.09
10 (Very worried)	0.28	0.37
How worried are you about getting a sexually transmitted disease other than HIV? (Scale 1–10)		
1 (Not at all)	0.2	0.14
2	0.11	0.06
3	0.09	0.03
4	0.00	0.03
5	0.00	0.11
6	0.11	0.00
7	0.06	0.09
8	0.03	0.06
9	0.06	0.09
10 (Very worried)	0.00	0.4
I know how to get a sexual partner to use a condom if I want him to. (Scale 1–6)		
1 (Strongly disagree)	0.09	0.09
2	0.00	0.03
3	0.00	0.03
4	0.06	0.00
5	0.06	0.06
6 (Strongly agree)	0.86	.8
I know how to use a condom correctly so that it doesn't break or slip off during sex.		
1 (Strongly disagree)	0.00	0.09
2	0.00	0.03
3	0.00	0.03
4	0.11	0.00
5	0.06	0.14
6 (Strongly agree)	0.83	0.71
I feel confident in my ability to get a new partner to use a condom?		
1 (Strongly disagree)	0.23	0.06
2	0.00	0.00
3	0.00	0.03
4	0.06	0.00
5	0.09	0.11
6 (Strongly agree)	0.83	0.77
A condom should be used with a man when you are the top during anal sex.		
1 (Strongly disagree)	0.03	0.09
2	0.00	000
3	0.00	0.03
4	0.06	0.03
5	0.09	0.09
6 (Strongly agree)	0.83	0.77
Condoms should be used with a man when you are the bottom for anal sex.		
1 (Strongly disagree)	0.17	1.14
2	0.11	0.06
3	0.00	0.03
4	0.09	0.03
5	0.06	0.06
6 (Strongly agree)	0.57	0.69
Having an STD increases the chances of getting HIV from a sexual partner		
1 (Strongly disagree)	0.06	0.09
2	0.03	0.00
3	0.03	0.00
4	0.03	0.06

(*Continued*)

Table 2. Continued.

Variable	Baseline ($n = 57$) Proportions	1-Week Post ($n = 35$)
5	0.09	0.11
6 (Strongly agree)	0.77	0.74
Ability to ask my main partner to get tested regularly for HIV		
I am afraid to ask my main partner to get tested regularly.	0.06	0.00
I might be able to ask my main partner to get tested regularly.	0.09	0.86
I have no problem asking my main partner to get tested regularly.	0.51	0.63
My main partner already gets tested regularly.	0.09	0.01
I don't have a main partner.	0.26	0.09
Ability to ask my main partner to get tested regularly for STDs other than HIV.		
I am afraid to ask my main partner to get tested regularly.	0.06	0.00
I might be able to ask my main partner to get tested regularly.	0.09	0.14
I have no problem asking my main partner to get tested regularly.	0.51	0.63
My main partner already gets tested regularly.	0.09	0.14
I don't have a main partner.	0.26	0.08

Table 3. Condom use readiness, sex, and condom use for anal, oral, and vaginal sex.

Sexual Behaviours	Baseline (rel. f., 95% CI)	1-week Post (rel. f., 95% CI)
Condom Use and Anal Sex	0.80(62, 0.98)	0.95 (0.87, 1.05)
Condom Use and Oral sex	0.43(0.22, 0.65)	0.59 (0.26, 0.92)
Vaginal Sex and Condom Use	0.74 (0.50, 0.98)	0.87 (0.66, 1.09)

Table 4. Association between HIV testing readiness and change in testing readiness change on HIV testing post-intervention.

	HIV Testing Readiness Pre and Post Intervention		
Variable	Baseline ($N = 57$)	1 Week Post Intervention ($N = 35$) Proportions – 95% CI	Difference
I don't see a need to get tested for HIV.	0.02 (0.01, 0.12)	–	0.02 (reduced)
I am not ready to get tested regularly	0.11 (0.05, 0.22)	0.09 (0.03, 0.24)	0.02 (reduced)
I am ready to start getting tested regular	0.36 (0.25 0.50)	0.37 (0.22, 0.55)	0.01 (increased)
I just started getting test	0.04 (0.01, 0.13)	0.17 (0.08, 0.34)	0.13 (increased)
I am already getting tested regularly	0.47 (0.34, 0.60)	0.37 (0.22, 0.55)	0.10 (reduced)

Table 5. Post-Nyansapo programme focus group themes.

	GROUPS			
THEME AND MAJOR SUPPORTING SUB-CATEGORIES	1 ($n = 7$)	2 ($n = 8$)	3 ($n = 10$)	4 ($n = 7$)
THEME 1. The retreat provided new opportunities for developing and leveraging social support networks of MSM				
Facilitated the development of new social networks	•••	•••	•••	••
Provided environment for open exchange of ideas without stigma	•••	•••	•••	•
THEME 2. The exercises were emancipatory and facilitated social justice action and equity.				
Retreat addressed issues for Ghanaian MSM beyond the topic of HIV	•••	••	••	•
Challenged internalized stigma of being a Ghanaian gay man	••	••	••	
Critiqued the adoption of gendered sex roles by gay men	•••	••	•	•••
THEME 3. The new clinical and social awareness facilitated a more fully informed development of personalised HIV prevention menus.				
Increased knowledge about the STI and HIV connection	•••	••	•••	•
The menu of HIV prevention options was a useful tool	••	••	••	••
THEME 4. The participatory and interactive pedagogical approach facilitated engagement and learning.				
The format encouraged participation and communal learning	••			•
Performance and role-play techniques made the content more accessible	•••		•	••
THEME 5. The experience could be improved with enhancement in the use of time, virtual platforms, and care coordination.				
Use social media for booster sessions and knowledge dissemination	•••			•
Retreats need a better balance between structured time and free time	•			•
Follow-up on behaviour goals and linkage to health and justice services	•	•••	•	•••

Note: • = Qualitative reviewer's endorsement as the main point of focus group.

Theme 1: The retreat provided new opportunities for developing and leveraging social support networks of MSM

This theme is based on two categories of main points expressed in the focus groups. The first category was that the programme created a fertile space for the emergence of new social networks. The participants felt that the environment of the programme nurtured a natural formation of relationships. The retreat environment included the physical location of the retreat in a rural setting that was approximately four hours driving distance from Accra. The sequestration from the distractions of life helped contribute to the men's ability to forge relationships with the others whom they would be in close proximity to for the weekend.

Furthermore, the retreat environment was one in which – at least for three days – some of the variables of daily life were provided to participants, including housing, food, access to clean water, and security. Ensuring that basic needs were met helped at least temporarily, to minimise distraction and allowed the men to both be more fully present in the environment and explore social connections with the other group members. This experience is exemplified in the quote below in which a participant describes the distinction(s) between the social connections he made in the group from the relatively inauthentic social connections he has with individuals outside of the Nyansapo programme context.

> Nyansapo connected me to other people. Not in the sense of going around for sex. Some of us always think that any time you are in a group among MSM that it's all pertains to sexual encounters. Here it has given me more friends that I can freely interact with. For instance, in our group, we can chat to release stress and teach people where you all have your information, but that is not creating any barrier, unlike in the "real world" where you may have friends who are not like-minded. With them always when they are talking, you are forced to "blend in," meanwhile deep within, you don't feel comfortable. With our group, for instance, you can say whatever, nobody cares [because] after all, we all know what's up. (Group 1)

The second category was that the environment was a forum for the free exchange of ideas without fear of being stigmatised. The men in the group described participation in other programmes where they are expected to censor the expression of thoughts that are not considered normative or respectable. They shared a recognition that Nyansapo was facilitated in a way that elicited ideas and conversations that historically were marginalised in the Ghanaian socio-cultural context and that this programme instead positioned these ideas to be centralised at the various discussions throughout the weekend. The serious engagement with marginalised ideas that are typically banned to the fringes of Ghanaian cultural thought was an intentional anti-oppression technique to conveyed – in word and deed – that individuals would not be shamed or otherwise penalised for sharing views that were irreverent, taboo, or unpopular. A man shared his experience of the disintegration of social hierarchies that typically structure and constrain free expression by noting that:

> [Nyansapo] was a bunch of people who think alike in one place. We put all the differences, age difference, whatever behind us, and we came together as a strong group. We did everything together, sportsmanship, and discussions. We laughed a lot, and for me … I am actually happy to be part of this group. (Group 3)

A similar sentiment was expressed by a man who was shy to exert his voice publicly but was able to develop a stronger sense of self-efficacy through his interactions among the men he met with during the Nyansapo programme. He shared that by attending the programme, he '*had the exposure to meet other friends, and then I also had to increase my confidence level because I am that type who can't really speak in public' (Group 1).* The two categories undergirding this theme reflect the salience of social support for the lives of the MSM in Ghana, given that socialising and connecting is not a part of the original 3MV programme curriculum but a by-product of the local programme delivery and anti-oppression approaches that focused on respect for human rights and individual experiences.

Theme 2: The exercises were emancipatory and facilitated social justice action and equity

There was a broad sense that the activities of the Nyansapo programme were liberating practices that fostered affirmation of the men's lives beyond the concept of individuals who needed to be educated to reduce 'their risk' of HIV infection. The men were engaged to think of themselves as whole and complex beings with valid desires and genuine grievances about the various intersecting stigmas and oppressions that they encounter in everyday life. The men felt challenged to examine their own internalisation of stigmatising beliefs and attitudes that they take towards themselves and how these attitudes can thwart their personal growth and development as well as contribute to isolation, despair and their likelihood of exposure to HIV through behaviours in attempts to address issues that were more related to fulfilling the needs for self-actualisation than they were to sexual gratification. In the excerpt below, one of the men described how he gained an understanding of how the internalisation of stereotypes influences HIV risk.

> I think deep within us as MSM—as much as we are trying to run away from societal stereotypes—deep within us, we are also doing the same thing. I think in a way, there is this kind of hypocritical attitude that we have towards ourselves because you see the society would be expecting you to behave in a way. When you come within the MSM community, some people are very effeminate, but their sexual preference with a man may not be being bottom but yet still some of us think that because I talk like 'this,' I am always supposed to go bottom (laughed). I think it really gave us an insight into how we see ourselves. (Group 1)

The above quote also touches on the third main point under this theme, which is the men's appreciation for discussions in Nyansapo that critiqued the slavish adoption of gendered sex roles learned from relationships they observed between men and women in their lives (e.g. parents) and in their social environments (e.g. church, work, television). The critique included an examination of the mechanics of HIV transmission and the implications of gendered sex roles and associated sexual positioning for HIV risk. In the following quote a participant articulates his own reconciliation and realisation that one's sexual role is distinguishable from the various other roles that a man assumes in his relationships with other men and, as a consequence of this, one can expect that the details of the sexual encounter and the relationship roles are subject to negotiation based on one's desires, including one's considerations for HIV prevention.

> That session made us realize that there is no defined role of what a top (man) should be or what a bottom (woman) should be doing. A top can be washing and be cooking and be doing anything. It's just about understanding. The bottom doesn't have to be beaten or doing the cleaning and the washing and cooking and buying clothes to prove that she's a woman and the top doesn't need to come home and say, um, where's my food, you haven't washed my socks, you haven't done this, you haven't done that. That's not how it's supposed to be. Then also with regards to STIs and HIV, I realized that personally, let's forget about bottoms are at a higher risk, and tops are at a lower risk. I think that we are all at risk, so it's about, the man wants to protect himself so you, the woman, also seeks to protect yourself. If the top is not ready to protect himself, insist that you protect yourself because your life belongs to you before the man came in. That's what should even make you realize no man should control you. (Group 2).

As illustrated by the above quote, participants experienced the content of the programme as intellectual tools for social liberation as well as sexual health liberation by making the connection of how practices of social domination can facilitate vulnerability to HIV exposure and acquisition. These critical consciousness-raising exercises reflect the specific philosophy of nursing education and practice focused on helping participants to recognise links between social systems of oppression in which they are embedded that constrain their abilities to achieve and maintain health, including sexual health.

Theme 3: The new clinical and social awareness facilitated a more fully informed development of personalised HIV prevention menus

The men discussed the development of capacities to develop menus of HIV prevention options that were based on their new scientific understandings of HIV and STI prevention,

transmission, and treatment that intersected with their heightened awareness of the influence of social norms, relationship dynamics, and emotions on behavioural choices. While the men were accustomed to hearing messages that condoms are important tools for preventing the transmission of HIV, they generally did not have a sophisticated understanding of how condoms prevented HIV. Additionally, many had not appreciated the link between untreated asymptomatic STIs and increased risk for HIV acquisition. Further, the men gained clarity that condom nonuse is not simply a product of not knowing how to use a condom, but that other influencing factors can be cognitively overwhelming and thwart their intentions to use condoms. The excerpt below is an exchange between the group facilitators and two participants regarding how they realise how emotions involved in finding the ideal partner can undermine one's prevention goal.

Person A: With the man of my dreams, wow. When the exercise was going on, I just imagined things. I dreamed that the person should have round eyes, dark color, a little bit of like 'yo!' 'yo!' (black hip-hop American style). Not too tall, not too short. Yeah, he should have a deep voice. It helped, everything helped.
Facilitator: Okay. Anymore?
Person B: People stand a chance to get more risk when they see their dream man because if you meet a 'normal' person, he might protect himself, but as soon as he meets his dream guy, he goes crazy. (Group 4)

These realities formed the motivational basis for developing a personalised menu of HIV prevention options from which one can select what may work best in a given sexual situation. Developing the list in advance and practicing a 'game plan' for how to enact the options would minimise the likelihood that they would be unprepared and unfamiliar if a scenario arose in the course of their daily lives. This is exemplified in the following quote:

> I also learned that you should have a menu plan. You should identify your risk behaviors, and then you draw a menu for change that will also help you to minimize your risk of contracting HIV or STD. And apart from that, I got to realize that there are some things that we try to change, which is hard for us. There are some things that we overcome that is like taking in alcohol or smoking. Smoking is a habit that is difficult because when you start, you become addicted. You try to stop, but you'll not be able to do that. Comparing to the sex, it's the same thing. People try to take in much alcohol before they can have sex, and I realize it's a risk because you might forget wearing your condom correctly, and also, the condom might tear, which you might not know. (Group 2)

In addition to developing the menu of options in advance, the men also described that even in the week since completing the programme, they began practicing some of the options from their menu. For example, one participant stated:

> Well, I have the behavior of drinking, and now ever since I came back from the Nyansapo program, I have not even taken alcohol, but today I will drink, not too much, but I have learned to minimize my drinking. (Group 3)

In this quote, the participant described recognising that his alcohol use was an influencing factor in his sexual behaviour decision-making. He, therefore, enacted an option from his personalised HIV prevention menu to reduce his alcohol intake.

Theme 4: The participatory and interactive pedagogical approach facilitated engagement and learning

In addition to the content of the Nyansapo sessions, participants identified that the approach to delivering the programme content was salient to their experience of the programme. The participants identified that the programme differed from those that are commonly available to MSM, which tend to focus heavily on didactic approaches that involve a health educator dispensing information. The Nyansapo programme was a facilitated discussion that leveraged the knowledge and experiences of the participants to produce an environment of multi-dimensional learning to occur. For example, while there were opportunities for learning regarding HIV/STI knowledge,

there were also opportunities for self-discovery through reflexive exchanges between participants, learning about perceived community norms, and learning about shared interests and strategies to build communities of social support.

Person A: Nyansapo has been educative to me in that we learned from each other. We learned how to control ourselves and how to relate to human beings living with HIV and STIs and finding ways and means to solve it.
Person B: As they said, Nyansapo has been very educative by including views of a whole lot of people from the community.
Person C: Mine was innovative because, actually, it's the first time coming out of my house to meet other people who also are into MSM, and it was very fun.
Person B: Hmmm, I also think that I had a whole lot of experience out there. I combined other stuff I've been through with Nyansapo training. The best part of it was the mode of learning, using the participatory approach. (Group 4)

The programme also made use of performance-based strategies to convey complex clinical topics. A key topic in the programme is increasing participants' understanding of how the presence of STIs increases the likelihood of onward transmission of HIV in someone who is living with the virus and that having an STI increases the chances of HIV acquisition upon exposure to the virus. The mechanism of action for this (inflammation caused by STI, activation of T-cells with HIV receptor proteins, the concentration of those T-cells at the mucosal membrane site to fight infection and consequently, the increased opportunity for the HIV to connect to the receptor proteins on the T-cell) involves clinical language and concepts that may be challenging to effectively communicate to a lay audience. In the exercises, participants were assigned roles as actors (e.g. mucous membrane, CD4 T-Cells, scout cells, STI, and HIV) in a narrated scripted performance designed to convey these subclinical interactions and their clinical manifestations. The innovative variations in content delivery were seen as a person-centred approach that was both entertaining and responsive to the potentially diverse learning styles, capacities, and preferences of Ghanaian MSM. Participants singled out one particular exercise as a quintessential example of the effective use of performance-based techniques. In the exercise, participants played roles in sexual intercourse and STI transmissions. The focus group excerpt below highlights the key role of the performance activity in conveying the clinical information.

Person A: I enjoyed sex in the city. I enjoyed it
Person B: I also enjoyed sex in the city
Person C: I was so surprised because I haven't heard it before. That was my first time.
Facilitator: What was your first impression?
Person C: I thought they were having sex 'in the city' (laughing)
Person A: Accra!!! (laughs)
Person B: I was enlightened
Facilitator: So you were happy?
Person C: Yes
Person A: I liked the drama part of it.
Person B: It was very dramatic!! (laughing). Superb acting.
Facilitator: Do you feel that the information about how HIV and STD relate to each other made a way in a difference you engage in sexual behaviors?
Person A: Definitely!! (Group 3)

The discussion from another group also highlighted the educational value of the exercise for explaining the dynamics of HIV transmission and how other sexually transmitted infections can exacerbate the risk of transmission.

Participant A: another key thing I think we all learned from that was how fast we should treat STI's because if you treat all the STI's and they go, then you are free, but if you don't treat then the T cells would come to join the scout cells and always trying to fight, so it was insightful.
Facilitator: What about the sex in the city exercise didn't you like?
Participant B: As long as I was educated, I don't think there is anything I didn't like.

> Participant C: For me, it was very practical, so I mean, it wasn't anything difficult for anybody to understand. Moreover, we were all there, and if they were doing something that you don't understand, you could tell the nurse you don't understand … but what we did there was very practical, so it was very easy to understand. (Group 1)

In the exercises described above, participants were assigned roles as actors (e.g. mucous membrane, CD4 T-Cells, scout cells, STI, and HIV) in a narrated scripted performance designed to convey these subclinical interactions and their clinical manifestations. The innovative variations in content delivery were seen as a person-centred approach that was both entertaining and responsive to the potentially diverse learning styles, capacities, and preferences of Ghanaian MSM.

Theme 5: The experience could be improved with enhancement in the use of time, virtual platforms, and care coordination

Even though the participants described their experiences of Nyansapo as positive overall, there were several areas identified that could enhance their satisfaction with the programme as well as increase its relevance to their priorities. The use of social media was identified as an important mechanism for helping the men maintain the connections that were developed during the retreat. The men also proposed that social media (e.g. mobile apps, websites) should be used as a community-building tool by connecting the different groups of men who completed Nyansapo at separate retreats. The men also believed that the knowledge gained in the retreat should be made more broadly available – especially given their concern that the Nyansapo retreat will be inaccessible to some men, who could greatly benefit from the information.

In two of the focus groups, it was raised that there needed to be a better balance between structured time during the retreat and free time. In the group that attended the first retreat, time was too structured. The identified weaknesses centred on the intensity of the sessions and that too much of the time over the weekend was spent in sessions. The group expressed that there was a need for more free time to facilitate socialising and the development of relational networks. In contrast, the last group to attend the Nyansapo retreat expressed that the programme could be improved with more structure. For example, group members indicated that there was no strict enforcement of instructions that participants return promptly from scheduled breaks. There was also the acknowledgment that options for making use of the available 'free time' was limited because the retreat was held in a remote location with chartered bus transportation.

A final recommendation for how to improve the programme was to incorporate a follow-up component to Nyansapo wherein the staff at PORSH could check-in with participants regarding their progress and challenges in implementing their menu of HIV prevention options and enacting other healthcare-seeking behaviours learned during the retreat. For example, the programme incorporated local nurses who provided the narration for the 'sex in the city' exercise and answered the participants' clarifying questions regarding HIV prevention, transmission and treatment; however, the groups discussed that the programme should include a process where the nurse would also coordinate linkage to services such as HIV and STI testing and treatment. Similarly, the programme included visits from representatives of the Ghana Police Service to explain to participants their rights under the law for protection from harassment and discrimination. Despite this information being provided in the programme, the participants indicated the programme would be improved by ensuring there was a mechanism to link individuals to justice services when they returned to their home communities.

Discussion

The current high prevalence of HIV among MSM in Ghana places them as a high priority population for HIV prevention. Nonetheless, Ghana has had limited progress in linking MSM to clinical

services due to the stigma and discrimination towards same-sex sexual behaviour and MSM living with HIV by health workers (Kushwaha et al., 2017; Ghana AIDS Commission, 2016; Nelson et al., 2015; Sabin et al., 2018). Although culturally grounded programmes have the potential to improve Ghana's challenge with linking MSM to health care, previous studies remain epidemiological or observatory (Kushwaha et al., 2017; Nelson et al., 2015; Ogunbajo et al., 2018; Sabin et al., 2018). We used Nyansapo, a culturally grounded group-level programme to promote behaviour change for HIV prevention among MSM in Ghana. Specifically, we examined how using culturally grounded methods can impact sexual health behaviours and day to day living among MSM, even in a highly stigmatised environment like Ghana. A public health nurse who is also a board-certified family nurse practitioner conceived this approach to delivering public health content as a way to ensure that populations at higher epidemiological risk for HIV/STI infection were equipped with nuanced clinical information in a way that did not require high literacy.

Participatory research has been applied in several communities such as Native American, Hispanic, and Black/African American communities to engage members and community-led organisations in identifying challenges and improving living conditions, especially concerning access to HIV prevention and health care (Cristancho et al., 2008; Horowitz et al., 2004; Scott et al., 2006). The Nyansapo programme represents an example of an effective participatory action programme among a criminalised and stigmatised population in the West African sub-region. Despite the hostile environment towards MSM in the country, the programme recorded active participation of more than 50 men over the four weeks of its implementation. The participation of professional nurses and the local community-based organisation in the programme contributed largely to its success. The meaningful involvement of a local community-based organisation also contributed to the ability of organisers to find a conducive and safe environment to host the MSM for the successful implementation of the programme. Future researchers need to involve locally-led organisations and participatory processes in working in sensitive and potentially unsafe areas for the MSM population, such as Ghana and other developing countries.

The clinical and social awareness discussion during the programme facilitated a more and fully informed development of personalised HIV prevention menus and increased knowledge about the STI and HIV prevention. The findings highlight the importance of awareness and participatory engagement in improving the sexual health behaviour of individuals (Bavinton et al., 2013; Fongkaew et al., 2017). As shown by participants' feedback, they increased their knowledge of sexual health and how to prevent HIV, aside from understanding the importance of condom use during sex. Participants reported during the focus group discussion that they learned several types of sexually transmitted diseases and their prevention and also developed the prevention menu to guide their efforts to reduce risk. Whereas knowledge of the need for condom use and risk of infections marginally increased at immediate post-intervention, it was very significant for knowledge of condom use when during sex as a man when you are the bottom for anal sex ($p > 0.01$). As shown in previous studies in Ghana (Kushwaha et al., 2017; Nelson et al., 2015; Ghana AIDS Commission, 2016; Ghana Statistical Service et al., 2015), condom use among MSM during sex is low; this Nyansapo programme provided an opportunity for MSM to improve their knowledge on the need for condom use during sex and behavioural skills for overcoming psychosocial and logistical barriers to condom use (Kushwaha et al., 2017).

Perhaps one of the most salient outcomes of the programme was the HIV prevention discussions and the creation of a menu of options, especially for continuity of applying the knowledge acquired during the programme. With the menu of options, participants listed items they intend to adhere to; it provides them a clear plan towards achieving their behavioural change goals. The existence of the networks also gives them a support system that could positively influence their abilities to maintain their plan. Hence, further engagement of MSM at the peer-to-peer level has substantial potential for improving sexual health. Reports from these participants' show that the interactive nature, communal learning, and role-play techniques that characterise the participatory approach remain effective in enhancing learning and possible behavioural change (Bavinton et al., 2013; Joseph et al., 2020).

Subsequently, the immediate impact of such plans adopted by the participants began to show even a week after the intervention. Condom use for all types of sex increased 1-week post-intervention compared to the baseline by 15% for anal sex, 16% for oral sex, and 13% for vaginal sex, highlighting the success of the programme as first of its kind in Ghana.

Additionally, the programme contributed to changing gendered perspectives and facilitating social justice among the MSM participants. Consistent with findings from Kushwaha et al. (2017), participants disclosed their frustrations on the social expectation of the male child to behave masculine and to appear in such a way that they remain safe in the community and not face stigma. However, the programme provided a platform where participants, nurses, and the lead organisation interacted to challenge the gendered expectations and roles between females and males, and between MSM partners. Participants learned about the acceptability of themselves and also others around them who may not appear according to the perceived traditional gender norms. This type of affirming consciousness raising is relevant for preventing stress and improving self-esteem and identity formation (Hani, 2020; Joseph et al., 2020)

Participants found this programme as a safe space that allowed them to freely engage in the discussion of issues affecting MSM in Ghana individually and as a group in ways that are not possible with their immediate families and friends due to less stigma (Wohl, 2010). The environment created by Nyansapo may have reduced the social desirability to over report HIV testing behaviours among participants, as shown in unexpected results of HIV testing frequency at baseline and post-intervention. The proportion of MSM who reported that they were regular HIV testers decreased by 9% from baseline and 1-week post-programme. The change in testing behaviour disclosure may be signalling the effectiveness of Nyansapo in improving participant confidence to disclose their health behaviour. It also reflects the feedbacks in the focus groups, where participants indicated that there are more forthcoming due to the safe space created by Nyansapo. As shown in elsewhere (Waddell & Messeri, 2006), social networks – as seen in Nyansapo – have the potential of providing individuals in marginalised populations with a system where they can care for each other and rely on each other for needed service in case of challenges. Such a system of support stands critical for Ghana and other African countries due to the criminalisation of same-sex sexual practices and desires (Larsson et al., 2017).

Apart from the knowledge and behavioural change, participants' reflections provided lessons for future programmes that implement community participatory action processes in Ghana, West Africa, and elsewhere. Although Nyansapo was very successful, participants thought the experience could be improved with enhancement, such as the use of virtual platforms and the use of social media for bolstering sessions and knowledge dissemination. Social media platforms can serve as dependable emotional support, intimacy, and trust between peers while also allowing anonymity, especially for those who feel vulnerable in healthcare settings due to social stigma (Cao et al., 2017; Kvasny & Igwe, 2008; Rhodes et al., 2010; Taggart et al., 2015) hence, future attempts to participatory action research need to explore such options as to meet the growing needs of participants. Also, participants indicated the need for follow-up arrangements for continuous support and link to care as an expansion of the Nyansapo period.

It is important to note that the programme had some limitations due to limited generalizability to the Ghanaian context and also due to the snowball nature of the study where people who participated maybe peers rather than a random widespread population. Nonetheless, Nyansapo serves as an example of a feasible and acceptable participatory action programme in Ghana and the West African sub-region. In the context of high social stigma against same-sex sexual practices, the intervention showed success in creating a safe space for the MSM population in their networks and providing a culturally grounded platform for knowledge sharing and motivating behavioural change. The short follow-up evaluation period for Nyansapo did not allow for the longitudinal monitoring necessary to assess the long-term impact of the programme on participants. However, the creation of social networks has the potential to reinforce skills learned in Nyansapo. Future programme implementations of Nyansapo can consider expansion to extend reach to MSM in other Ghanaian

communities and elsewhere across the West African region, incorporating components that include care coordination and linkage to clinical preventive services, and employing longitudinal programme evaluation processes.

Finally, Nyansapo demonstrates the acceptability and programmatic benefit of integrating registered professional nurses in the implementation of programmes to reduce HIV disparities in marginalised communities in low and middle-income countries. In including nurses and applying advanced practice nursing framework to the implementation of behavioural and biomedical intervention can help to decrease HIV disparities by reducing stigma and bridging access to prevention services such as pre-exposure prophylaxis (PrEP) (Nelson et al., 2018). As shown in Nyansapo, nurses are important resources that bring relevant leadership, clinical expertise, and therapeutic communication skills to contribute to anti-oppression approaches of community-based HIV prevention programmes for MSM.

Whereas the Nyansapo implementation was not very recent to the publication date of this article, there have not been similar studies in the context of Ghana or West African countries; hence, we are not sure whether any changes (if present) are an improvement. We, however, have hope for longitudinal designs that will scale up the Nyansapo project using a more representative sample, or a follow-up study among the participants in the present study to demonstrate any longer-term benefits of having participated in the Nyansapo project.

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