Evaluation of a training aimed at building capacity for outreaching to men who have sex with men and transgender women in Indonesia

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Abstract

Implementers of outreach program in Indonesia often provide formal training for their outreach workers (OWs) only at the startup. We believe continuous training can be provided by experienced OWs at any time if an appropriate training package is available. Using a one-group pre-test–post-test study design; we developed, implemented and evaluated an OW-informed training program aimed at increasing OWs' knowledge and skills for outreaching to men who have sex with men and transgender women. We analyzed longitudinal data from 75 OWs from 7 Indonesian cities using one-way within-subjects ANOVA to examine the effects of the training program on participants' knowledge and perceived skills over time. Average overall knowledge among participants increased from pre-test to immediate post-test ($P < 0.001$) and from pre-test to 2-month post-test ($P < 0.001$), especially in basic human immunodeficiency virus and sexual transmitted infections; condoms and lubricants; sexual and reproductive health and rights; sexual orientation and gender identity and expression; and stages of behavior change. Average overall perceived skills increased significantly from pre-test to 2-month post-test ($P = 0.018$), especially in creating innovative outreach approaches;

building effective teamwork; and coordinating with healthcare providers. This training package increased knowledge and perceived skills among OWs. Thus, if consistently applied, it could help maintaining quality of the outreach program.

Introduction

In Indonesia, men who have sex with men (MSM) and transgender women (transwomen) are disproportionately burdened by the human immunodeficiency virus (HIV) epidemic [1]. Reducing HIV transmission among MSM and transwomen is the goal of many behavior change interventions [2]. Despite their effectiveness [3], interventions have failed to reach substantial proportions of MSM and transwomen in the last few years [1]. Without adequately reaching their target populations, interventions will likely have subpar population-level impacts. Thus, it is critical to develop innovative and sustainable ways to increase the reach of interventions to MSM and transwomen.

Outreach to MSM and transwomen has been a primary HIV intervention component in Asian countries, including Indonesia [4–6]. Outreach has been perceived as a suitable approach because it brings interventions to where individuals live, work and congregate [7, 8]. Outreach approaches

commonly hire members of target communities as outreach workers (OWs) to amplify intervention penetration [9, 10]. The OW's role often includes reaching clients, providing them with risk-reduction materials, and referring them to healthcare services for HIV testing [11]. As frontline staff for interventions, OWs play a critical role in changing behavior among hard-to-reach groups.

Outreach programs in Indonesia and many other countries often struggle with frequent turnover among OWs, which may reduce the effectiveness and sustainability of interventions [12, 13]. Staff turnover requires that organizations incur additional costs to hire and train replacement personnel. Furthermore, when experienced OWs leave their jobs, organizations often hire inexperienced personnel as replacements, and these unseasoned OWs can have trouble fulfilling their job responsibilities [13, 14], thereby reducing the effectiveness of interventions.

To increase the capacity of new OWs, organizations can provide training that teaches OWs the necessary knowledge and skills to carry out their duties [12, 13]. While many organizations in Indonesia provide formal training facilitated by certified trainers, training is often only provided during the startup of their programs. Thus, training is not provided to replacement OWs who are hired after the project startup period. Nevertheless, effective training for new OWs can greatly benefit organizations and interventions [12, 13, 15].

We believe that training for all OWs can be delivered by a senior or experienced OW in an informal setting if an appropriate training package is provided. Therefore, it is crucial to carefully identify knowledge and skills necessary for OWs to include in the training package as well as to select appropriate methods and tools to be used in the training [16–18]. In this study, we designed an OW-informed training package for capacity building of OWs in reaching MSM and transwomen in Indonesia. We tested whether the training package was effective in increasing the OWs' knowledge and skills in conducting effective outreach. We also tested whether the training package was effective for both established and novice OWs. Finally, we documented

participants' and trainers' feedback and satisfaction with the training package.

Materials and methods

Training package development

We developed a training package to increase the capacity of OWs reaching for MSM and transwomen. The training package was developed through a stepwise process with strong community involvement. As described in Fig. 1, we started the process by conducting literature reviews followed by needs assessment surveys. A series of assessments in 30 Indonesian cities were conducted during the period of December 2014 to April 2015. Surveys with local OWs and healthcare providers identified topics needed for the training package (e.g. concept of sexual orientation and gender identity, teamwork building, and effective communication technique). Informants also explicitly mentioned that training for OWs should not be provided only at the initial program startup. The training should be available any time needed by the outreach team, primarily upon the arrival of a new member of the team. The survey results also highlighted that the training should be delivered in informal settings, cover a small number of topics in great detail, and include simulation and roleplay activities.

Subsequently, a team consisting of a training consultant, an academic researcher, and two community representatives developed the training package. We started by listing the 12 topics suggested by the assessment results. We then placed all 12 topics into a module template consisting of instructional objectives, estimated time, learning tools and materials, suggested learning methods, and reading materials. As soon as all modules were drafted, we checked for any overlapping content and redundancies amongst the modules and revised accordingly. We included two additional modules, namely team building and performance self-assessment. The topic of team building was included because an outreach team commonly consists of a group of individuals that may have never worked together. Therefore, having insights on how to make a well-unified

Fig. 1. Training development process.

team could be beneficial. In addition, we thought performance self-assessments could be advantageous because it would allow each OW to evaluate their strengths and weaknesses, thereby identifying areas in need of improvement and additional training.

The training package [19] eventually comprised 14 modules: (i) basics of HIV; (ii) sexual transmitted infections (STIs); (iii) condom and lubricant use; (iv) sexual and reproductive health and rights (SRHR); (v) sexual orientation and gender identity and expression (SOGIE); (vi) sexual behavior; (vii) introduction to behavior change; (viii) stages of behavior change; (ix) persuasive communication and motivation counseling; (x) social media use for behavior change; (xi) team work building in outreach; (xii) outreach management; (xiii) building and maintaining partnership with healthcare provider; (xiv) performance self-assessment.

As the assessments highlighted the importance of making the training available when needed, we designed the training package to be simply delivered by anyone from the outreach team who was deemed capable, e.g. a senior OW or coordinator of the outreach team. Therefore, we applied a peer-to-peer

model as our training method and incorporated adult learning techniques. Aside from the fact that peer-to-peer model is a common training method for community workers [20], we believed the peer-to-peer training method would create a culture of continuous learning within the outreach team. In term of learning techniques, we included a section about facilitation techniques [21] in the training package, that guides the user how to conduct role playing, encourage sharing opinions and experiences, trigger creative ideas, make training enjoyable and apply principles learned to day-to-day work. In addition, the section also explains the significance of respecting the following adult learner characteristics: (i) self-directed; (ii) willing to know; (iii) problem-oriented; (iv) applying to context based on life experiences and (v) fond of active participation [22].

We conducted a training of trainers (ToT) led by a training consultant in mid-September 2015. We trained 22 attendees from 13 cities in Indonesia who were senior OWs or outreach coordinators in their respective cities. Attendees ranged in age from 22 to 55 years old, 12 people were self-reportedly MSM and 10 people identified themselves as waria (Indonesian local term for transwomen). The

majority of attendees were high school graduates and had worked in outreach for more than 3 years. The ToT lasted 4 days covering the 14 modules in the training package. It focused 70% on content of the modules and 30% on facilitation techniques for organizing and delivering a training. At the beginning of the ToT, the consultant briefly assessed attendees' familiarity with the training topics. This was performed to ensure topics that were new to the attendees given more allocated time to discuss. Basic HIV and STIs, condom and lubricant, and sexual behavior were topics that most attendees have ever learned from prior training. Nineteen of 22 attendees achieved a passing score on a post-test assessment (i.e. 80% of the total score). They were then asked to plan and lead a local training in their respective cities. We used input and lessons learned from the ToT to finalize the training package before executing the local training sessions.

Training implementation

A series of eight local training sessions in seven cities (i.e. Medan, Bandung, Jakarta, Tangerang, Yogyakarta, Makassar and Manado) were conducted in October and November 2015. Each local training session consisted of 3 full-days and 2 half-days. We recruited participants for the local training sessions in every city through a local organization that was part of an ongoing outreach program targeting MSM and 'waria' groups. The inclusion criteria of local training participants were: (i) being professionally hired as an OW (not voluntary) and (ii) assigned for reaching either MSM and/or waria.

Evaluation study design and participants

We used a one-group pre-test-post-test study design. A total of 81 participants were invited to participate in training at the 8 sites as described in Fig. 1. Of all participants invited, one person withdrew on the first day of the training, and one participant withdrew on the fifth day of the training and did not complete the post-test. A total of 76 participants participated in the 2-month evaluation. Since one participant in this round of evaluation did not

complete the post-test, this analysis we included 75 participants who completed all evaluation points.

Participants consented prior to starting the training. Participants were aware that they could withdraw their participation at any time. Participants received IDR (Indonesian Rupiah) 170 000/day (~\$13 USD) cash in reimbursement of their time and local transport cost for their participation during the training, and IDR 120 000 (~\$9 USD) for their participation in the 2-month evaluation.

Measures

We assessed the effectiveness of training via measuring changes in knowledge and perceived skills. We also assessed feasibility of the training package to understand whether it was appropriate to use a peer-to-peer training method, and identified area for improvement by acquiring feedback from both participants and trainers.

Knowledge

Knowledge items were measured in pre-test, immediate post-test and 2 months post-test surveys. Forty-three true-false items measured knowledge. Following processes used in other studies [23–25], we created questions assessing knowledge on nine different topics addressed by the training package. Each question in the evaluation sheet was scored as one for a correct answer, and zero for an incorrect answer and unanswered questions.

To assess the relevance of the knowledge items, we invited a panel of experts to review [26]. The panel consisted of five experts who either published or worked in the field of HIV, primarily on prevention among MSM and transwomen. They rated all items in terms of relevance to certain constructs. Based on the panel's feedback, we sorted the questions into categories as follow: (i) basic HIV and STIs (six items; e.g. 'a person who has STI is more likely to get HIV infection', 'several type of STIs cannot be transmitted with direct contact with body fluid of an infected person'); (ii) condom and lubricant use (five items; e.g. 'condom use with an oil based lubricant makes condom easier to break'; 'for more protection, it is better to use layers of

condom at once’); (iii) SRHR (five items; e.g. ‘sex organs may differ from reproductive organs given their function’; ‘sexual health goes beyond the condition of merely being STI free’); (iv) SOGIE (four items; e.g. ‘HIV has nothing to do with sexual orientation’; ‘a person’s gender expression may reflect his/her sexual orientation’); (v) sexual behavior (five items; e.g. ‘a person who plays receptive role in anal sex has higher risk than the person who does the penetrative one’; ‘all types of sexual activity have the same level of transmitting HIV’); (vi) basics of behavior change (five items; e.g. ‘behavior change is not only determined by individual factors’; ‘one behavior intervention will simultaneously change some individuals’ behavior’); (vii) stage of behavior change (six items; e.g. ‘one single approach can be used in every stage of behavior change’; ‘a relapse of a client indicates an OW’s failure in doing his/her job’); (viii) outreach management (six items; e.g. ‘it is not necessary for a senior OW to create a plan for his/her outreach activity’; ‘recording and reporting in outreach activity is carried out only because it is requested by the donor’).

Perceived skills

We asked participant to self-evaluate their capability on seven types of skills using a scale ranging from 1 to 10, in which the higher number reflects higher perceived skill. The items covered the following topics: (i) building effective communication with clients; (ii) motivating clients to change their behavior; (iii) creating innovative approaches in conducting outreach; (iv) using social media for outreach; (v) providing appropriate HIV counseling for the client; (vi) building effective team work with all counterparts in outreach team; and (vii) coordinating effectively with local health providers. We conducted a factor analysis on the seven items using principal axis factoring. Based on scree plots and parallel analysis, only one factor emerged, and Cronbach’s α was 0.90, showing good internal consistency.

Participants’ feedback

We asked participants to rate the usefulness of the training for their work on a scale ranging from 1

(‘not useful at all’) to 5 (‘very useful’) followed by an open question, i.e. ‘why do you think the training deserves the score you have given?’ We also asked participants to identify three topics of the training they found most helpful.

Trainers’ feedback

We measured satisfaction of OWs who performed as the trainer. We measured trainers’ feedback on the training package to assess the feasibility of having the training delivered through a peer-to-peer method. We asked trainers to indicate the three most difficult and three easiest topics to deliver, and changes that occurred post-training for both themselves and their outreach team. We also asked trainers to rate the usefulness of the training in practice using similar questions we used for the training participants.

Sociodemographic characteristics

We assessed participants’ gender, risk-group membership, education, outreach target populations and years of experience working in outreach.

Data analysis

Analyses were conducted using Stata version 14.0 (StataCorp, College Station, TX, USA). We reported sociodemographic characteristics of the trainee participants as percentages. We evaluated the differences in knowledge and perceived skills over time using one-way within-subjects analysis of variance (ANOVA). To examine the effects of the training on knowledge and perceived skills by work experience in outreach (i.e. ≤ 1 year and > 1 year), we examined the interaction between work experience and time using a mixed ANOVA.

When analyzing participants’ feedback, we stratified the trainee participants by their work experience in outreach. We examined their choices of the top three useful training topics using Fisher’s exact test. We reported scores of the satisfaction among both participants and trainers as percentages, and presented answers from the open questions as quotes.

Table I. Sociodemographic characteristics of training participants

Characteristics	N (75) % (100.0)	
Gender		
Men	48	64.0
Waria	26	34.7
Women	1	1.3
HIV risk group		
MSM	47	62.6
Waria	26	34.7
Neither MSM and/or waria	2	2.7
Education		
Completed Junior high school or lower	11	14.7
Completed high school	50	66.7
Completed college or above	14	18.6
Work experience		
6 months or less	9	12.0
7–12 months	13	17.3
1–3 years	30	40.0
>3 years	23	30.7
Outreach target populations		
MSM only	40	53.3
Waria only	17	22.7
Waria and MSM	3	4.0
Waria and other risk-group	6	8.0
MSM and other risk-group	2	2.7
Waria, MSM and other risk-group	7	9.3

MSM, men who have sex with men; waria, Indonesian term for transwomen.

Results

Characteristic of participants

Table I shows that more than half of the trainee participants were men (64.0%) and the majority identified as MSM. Additionally, 34.7% of participants identified as waria. The ages of men ranged from 19 to 47 years, and the ages of waria and women ranged from 27 to 62 years (data not shown). The majority of participants completed at least a high school education (85.3%). All participants were responsible for outreach to MSM or waria, and over 70% of them had been working as an OW for at least 1 year.

Knowledge

As shown in Table II, there was a significant difference in knowledge over time. Average total knowledge increased significantly from pre-test to

immediate post-test (30.0 versus 35.0, respectively; $P < 0.001$) and from pre-test to 2 months post-test (30.0 versus 35.0, respectively; $P > 0.01$). Average total knowledge remained stable from immediate post-test to 2 months post-test (35.0 versus 35.0, respectively; $P > 0.05$). We found that there were no interactions between time and work experience ($P = 0.0667$; data not shown), and work experience was not significantly associated with overall changes in knowledge ($P = 0.4059$; data not shown). These results suggest that the effects of the training package on knowledge were similar across work experience groups.

Regarding specific topics, mean knowledge scores significantly increased from pre-test to immediate post-test for all topics except outreach management. At 2 months post-test, all these categories, except basics of behavior change, remained significantly higher than pre-test knowledge levels. Additionally, SRHR significantly increased from immediate post-test to 2 months post-test.

Perceived skills

Table II also shows there was a significant difference in perceived skills over time. Average total perceived skills increased significantly from pre-test to 2 months post-test (51.2 versus 53.7, respectively; $P < 0.05$). We found that there were no interactions between time and work experience ($P = 0.4139$; data not shown), and work experience was not significantly associated with perceived skills ($P = 0.6157$; data not shown). Regarding specific topics, participants' perceived skills significantly increased from pre-test to 2 months post-test for creating an innovative approach in conducting outreach (6.7 versus 7.4, respectively; $P < 0.01$), building effective teamwork (7.5 versus 8.0, respectively; $P < 0.05$) and coordinating with healthcare provider (7.6 versus 8.2, respectively; $P < 0.01$).

Participants' feedback

Among all training participants, basics of HIV and STIs, SOGIE, and behavior change were considered as the most useful topics for outreach work (Table III). Compared with participants who had less work

Table II. Changes in knowledge and perceived skills among participants (N = 75)

	Mean (SD)			Change in Means (SE)		
	Pre-test	Immediate post-test	2 months post-test	Pre-test versus immediate post-test	Pre-test versus 2 months post-test	Immediate post-test versus 2 months post-test
Knowledge						
Total (43 items)	30.0 (4.4)	35.0 (5.0)	35.0 (5.2)	5.04 (0.6) ^c	5.04 (5.5) ^c	0.00 (5.1)
Basics of HIV and STIs (six items)	4.3 (1.0)	5.3 (0.9)	5.1 (0.9)	0.92 (0.1) ^c	0.76 (0.1) ^c	-0.16 (0.1)
Condom and lubricants (five items)	4.4 (0.8)	4.8 (0.5)	4.8 (0.4)	0.43 (0.9) ^c	0.44 (0.9) ^c	0.01 (0.9)
Sexual and reproductive health and rights (five items)	3.6 (0.8)	4.3 (0.9)	4.6 (0.5)	0.72 (0.1) ^c	1.01 (0.1) ^c	0.29 (0.1) ^a
Sexual orientation, gender identity and expression (four items)	2.1 (1.3)	2.6 (1.3)	2.5 (1.5)	0.49 (0.2) ^b	0.42 (0.2) ^b	-0.07 (0.2)
Sexual behavior (five items)	2.5 (1.1)	3.3 (1.4)	3.5 (1.2)	0.84 (0.2) ^c	0.96 (0.2) ^c	0.12 (0.2)
Basics of behavior change (five items)	4.0 (0.9)	4.4 (0.7)	4.2 (0.9)	0.39 (0.1) ^b	0.20 (0.1)	-0.19 (0.1)
Stages of behavior change (six items)	3.0 (1.2)	4.2 (1.3)	4.1 (1.5)	1.19 (0.2) ^c	1.13 (0.2) ^c	-0.05 (0.2)
Outreach management (seven items)	6.0 (0.7)	6.1 (0.7)	6.2 (0.7)	0.07 (0.1)	0.1 (0.1)	0.04 (0.1)
Perceived skills						
Total (seven items)	51.2 (8.7)		53.7 (8.2)		2.51 (9.0) ^a	
Effective communication (one item)	7.1 (1.4)		7.3 (1.2)		0.19 (0.2)	
Motivate clients (one item)	7.5 (1.6)		7.7 (1.4)		0.16 (0.2)	
Create innovative approach (one item)	6.7 (1.4)		7.4 (1.5)		0.59 (0.2) ^b	
Social media use (one item)	7.4 (1.8)		7.5 (2.0)		0.16 (0.3)	
Provide counseling (one item)	7.2 (1.7)		7.5 (1.5)		0.32 (0.2)	
Effective team work (one item)	7.5 (1.6)		8.0 (1.6)		0.52 (0.2) ^a	
Coordinate with healthcare (one item)	7.6 (1.6)		8.2 (1.4)		0.57 (0.2) ^b	

All *P*-values were derived from one way within-subjects ANOVA.

^a*P* < 0.05.

^b*P* < 0.01.

^c*P* < 0.001.

STIs, sexual transmitted infections.

experience, those who had worked for more than 1 year were more likely to report that the SRHR topic was most useful for their work. Meanwhile, participants with less work experience were more likely to report that basic HIV and STIs was the most useful topic. SOGIE, communication and motivation counseling, social media use, behavior change and performance self-assessment were among topics which most participants mentioned as the new topics they gained from the training (data not shown). Nearly, all participants (96%) rated the overall training 'useful' or 'very useful'. The following are typical answers when participants being asked about to what extend the training has facilitated them at their work:

It was very helpful for me. I get to learn about how to establish good partnership with the

healthcare, and about behavior changes. (MSM participant, Makassar)

It has been helpful in the field. We now have more knowledge in outreach and more confident to change clients' behavior. (Waria participant, Bandung)

Trainers' feedback

All seven trainers (100%) rated the training 'useful' and 'very useful' (data not shown). Most trainers considered SOGIE, communication and motivation counseling, and performance self-assessment as the top three topics with respect to the usefulness for their work. They also considered these three topics as among the most difficult topics to deliver, while

Table III. Top three most useful training topics among training participants and by work experience (N = 75)

Topics	Total N (%)	Experience as OW		P-value
		< 1 year n (%)	>1 year n (%)	
Behavior change	39 (52.0)	28 (52.8)	11 (50.0)	1.000
Basics of HIV and STIs	38 (50.7)	17 (77.3)	21 (39.6)	0.005
Sexual orientation, gender identity and expression	35 (46.7)	11 (50.0)	24 (45.3)	0.801
Social media use in outreach	21 (28.0)	6 (27.3)	15 (28.3)	1.000
Sexual reproductive and health rights	20 (26.7)	1 (4.6)	19 (35.9)	0.004
Communication and motivation counseling	20 (26.7)	6 (27.3)	14 (26.4)	1.000
Condom and lubricant use	19 (25.3)	3 (13.6)	16 (30.2)	0.157
Outreach management	9 (12.0)	3 (13.6)	6 (11.3)	0.779
Sexual behavior	6 (8.0)	0 (0.0)	6 (11.3)	0.171
Networking and partnership with healthcare	6 (8.0)	2 (9.1)	4 (7.6)	1.000
Team work building	5 (6.7)	2 (9.1)	3 (5.7)	0.627
Performance self-assessment	2 (6.7)	1 (1.9)	1 (4.6)	0.503

All *P*-values were derived from Fisher's exact test.
STIs, sexual transmitted infections.

basic HIV and STIs, condom and lubricants, and sexual behavior were among topics deemed the easiest to deliver. When asked about changes that occurred after the training for themselves as OWs and for their outreach team, typical answers were:

We [the outreach team] now have more frequent coordination, and no longer hesitate to give input to each other with respect to the work performance of our team in the field. (MSM trainer, Bandung)

I feel more confident in doing my job because I now have better understanding about this stuff. This helps me to make decision on what I should actually do. (Waria trainer, Manado)

Discussion

This study shows that a tailored training package can increase overall knowledge and perceived skills of OWs conducting outreach to MSM and transwomen. Our analysis revealed that the knowledge increase remained stable at 2 months after the training completion, and suggests the efficacy of this package. In general, participants considered topics

about basic HIV and STIs, SOGIE, and behavior change to be the most useful in practice. Our analyses also indicate that a significant increase of participants' perceived skills at 2 months evaluation after the training. The increase mostly appeared on skills on creating innovative approaches; building effective teamwork; and coordinating with health-care provider. Additionally, the training was rated favorably by both the participants and trainers.

This study demonstrates a careful process in developing a training package tailored to the needs among OWs reaching for MSM and waria. In addition to the evaluation on our primary outcome measures, this study also examined participants' and trainers' reaction toward elements the training package. Nevertheless, this study has several limitations. First, the nature of the evaluation did not allow us to measure the extent to which OWs truly applied the knowledge and skills in their jobs. Second, evaluation responses may be susceptible to social desirability bias which led to overestimation of the reported estimates. Such bias may have occurred in two ways, namely, (i) the participants might have reported higher score for their perceived skills, especially in the 2-month evaluation, to appear having an improvement and (ii) some participants may have avoided giving critical

feedback since the trainer was also one of their colleagues. Third, this study involved a relatively small sample size of participant; thus, the findings cannot be generalized to the broader population. Fourth, our data included two cisgender heterosexual male OWs, who may have different needs or interest on the training topics. Yet, we believe their data did not skew our results because of the small number of these in our sample. Fifth, due to the absence of a control group, results cannot be fully attributed to the intervention. Nonetheless, this study showcases the feasibility and acceptability of providing a peer-to-peer based training for OWs.

Our findings support Josiah Willock *et al.* who found that a tailored peer-to-peer participatory can increase the knowledge of their training participants, i.e. community health workers (CHW) [23]. Similar with these workers, OWs are commonly non-traditional learners and recruited from members of the communities in which they work. Therefore, the use of peer-led and participatory learning is seemingly appropriate for this group. Such a learning approach could facilitate both trainer and participants of the training to evaluate their personal experiences, learn from each other, and apply the lessons learned to their work setting [27]. Furthermore, such learning approaches could trigger the creation of regular refresher training to exist within the team, which is critical for maintaining the quality of performance of the OWs over time [28].

Our qualitative findings suggested the training was helpful to improve OWs' confidence in performing their work, which also consistent with Josiah Willock *et al.* [23]. The improvement was reported by both participants and the trainers. This may be associated with the increase of perceived skills among the participants as also shown in our analysis. This finding supports a study from Ruiz *et al.* which also recommended confidence in ability to utilize skills as one of the core competency for CHW training [29]. The increase in perceived skills, however, was not significant for skills in dealing directly with clients (e.g. effective communication, motivating clients, social media use and providing counseling). This may be because those topics were very new to most participants, thus they may need

additional training. Moreover, most trainers also admitted that these new topics were challenging for them to deliver. Future use of the training package could either allocate more time to these topics or conduct specific sessions with participants struggling with these topics.

Our results showed that OWs' work experience was not significantly associated with overall knowledge or perceived skills. These were somewhat in contrast to Josiah Willock *et al.* findings whose peer training method showed a better result for increasing knowledge among more experienced workers. A wide range of new topics to the OWs that were introduced in our training package might explain these contrary findings. We found work experience was associated with participants' preference on some of the training topics. The more experienced OWs preferred topics beyond HIV-related subjects, such as SRHR, while the less experienced OWs found basic HIV modules to be most helpful. Moreover, both participants and trainers highlighted several topics from the training that they found most useful for their work and never been taught in other previous training, such as SRHR, SOGIE and behavior change. This may also explain the significant increase on participants' SRHR knowledge at the 2-month evaluation. Participants' first introduction to this so-called new topic during the training might have triggered them to learn more about it post-training.

Our analysis shows that the increase of OW's overall knowledge and perceived skills retained at 2 months after the completion of the training. Although not statistically significant, knowledge on several topics seemed to decrease over time. This somewhat aligned with a study from Lopes *et al.* that found a decreasing trend over time of worker's performance after showing an increase right after training [30]. Hence, the provision of a continuous training within workforce management is imperative for maintaining, refreshing, and upgrading workers' knowledge and skills. This suggests that the idea to provide a training package which can be used any time as well as can be delivered in an informal way of learning available for OWs was accurate. Moreover, our training package also provides OWs with knowledge and skills to deal

with clients who may feel tired of standard HIV-related messages [31–33]. As such, trainers can simply choose any of the topics he/she thinks may benefit his/her peer OWs.

In this study, diverse opinions among OWs on the usefulness of the training topics in practice suggests that topics provided in the training package—for future use—should be used in selective manner by considering the current needs. A careful assessment to map out the training gaps and the expected benefits should always be carried out ahead of planning the training. Hidalgo *et al.* stressed that a training package should be prepared to facilitate OWs in solving problems and tackling obstacles at their work [13]. Thus, it is crucial to ensure adaptation the training package to local context and its relevancy over time [30, 34].

Conclusion

The use of a tailored training package delivered through a peer-to-peer training model was effective for increasing overall knowledge and perceived skills of OWs. The training package was found to be acceptable and beneficial among both experienced and novice OWs, despite their varied preferences for training topics. This training package, if consistently applied, could help maintaining outreach quality by continuously increasing OWs' capacity in performing outreach. To use it in a long run, we recommend performing periodical reviews of the training package to assure its relevancy to the current outreach program. Future studies can seek to disseminate this training package and test whether it increases the proportions of MSM and transwomen reached by HIV interventions in Indonesia. It is also worth considering exploring the commitment at management level of outreach program toward the idea of initiating a culture of continuous learning for their OWs.

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Conflict of interest statement

None declared.

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