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Challenges and Support to HIV Care and Treatment of Female Sex Workers Living with HIV in Indonesia: A Mixed Method Study

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Article Info	Abstract		
Article History: Submitted August 2020 Accepted June 2021 Published July 2021	This study aims to describe the experience of female sex workers (FSWs) living with HIV in Indonesia during the care and treatment cascade, including the challenges and support associated with them. It was initiated by a trained community study team from OPSI, a national network for FSW community in the country. A mixed-method design was used, consisting of		
Keywords: Female sex workers, HIV care, HIV treatment, PLHIV, Indonesia	a cross-sectional survey and qualitative interviews conducted in four large cities in May and June 2019. Quantitative data were collected from 80 FSWs living with HIV, while qualitative interviews were conducted for 9 FSWs previously involved in the survey. Most of the FSWs were diagnosed with HIV at facility-based HIV testing services. While most FSWs delayed		
DOI https://doi.org/10.15294/ ujph.v10i2.40037	 initiating their treatment, majority eventually commenced it. Overall treatment retention was fairly good, but some were being inconsistent or even stopped. However, individuals that have access to viral load test was low, leading to a small number of those confirming their viral suppression status. Conclusively, interventions directed to strengthen individuals' literacy in HIV treatment and stigma management is recommended, as well as identification of maximum potential support systems around the FSWs. 		

INTRODUCTION

Female sex workers (FSWs) are at high risk of being infected, transmitting, and affected by HIV. In many countries, this population shows a significant burden of HIV, and Indonesia is no exception (Vickerman et al., 2010; Baral et al., 2012). It is estimated that more than 226,000 FSWs in Indonesia provide services to 5 million customers (Indonesian Ministry of Health, 2017). Meanwhile, the prevalence of FSWs living with HIV is 2% (Indonesian Ministry of Health, 2019). Therefore, FSWs are still one of the key populations of HIV prevention response in Indonesia. The number of AIDS cases in Indonesia in the sex worker group from 19872019 was 3,566 cases. The IBBS also showed increased access to health services for HIV testing in the FSW group. The most accessed services are mobile HIV testing (39.9%) and Puskesmas (primary public health center in Indonesia) (33.7%) (Indonesian Ministry of Health, 2020). However, despite the increase in this group's uptake of HIV testing, the positivity rate among FSW is consistently lower than the national prevalence. It even decreases compared to other key population groups. Meanwhile, the resources and funds used to carry out mobile HIV testing in the FSW group are higher than the costs of diagnosing new HIV cases in other populations (Health Policy Plus, 2019). This situation indicates that a new focused

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pISSN 2252-6781 eISSN 2548-7604 strategy is needed to improve case finding in the FSW group.

In recent years, HIV programs in Indonesia have applied the "new outreach model" as an effort to prevent and manage HIV in FSWs. This model is implemented in the form of outreach, by applying a "peer-to-peer" approach. This approach focuses on FSWs empowerment as "peer leader", tasked with mapping areas of FSWs, recruiting local peer educators, finding, and encouraging FSWs to go to HIV counselling and testing (HCT) service, and later directing them to HIV treatment cascade after diagnosis (UN-FPA Indonesia, 2018a). The application of this outreach model seems to be adequately effective for identifying FSWs and encouraging them to access HCT (120% and 80% achievement rate in semester 1 and 2 of 2018, respectively). Unfortunately, a similar success did not occur for FSWs who diagnosed with HIV to immediately starting their treatment and to maintain them in treatment (44% and 34%, respectively) (UNFPA Indonesia, 2018b).

Ensuring optimal access to antiretroviral (ARV) treatment, as well as adherence and retention of FSWs in treatment will not only lead to individual benefit for FSWs infected with HIV, but also may facilitate a decrease in HIV transmission in the population level (Delva et al., 2012; Alary et al., 2013). Successful HIV treatment will decrease the viral load levels in individuals infected by HIV and strengthen in their immunological system. To achieve these conditions, it is crucial to ensure individual adherence to take antiretroviral (ARV) therapy and to ensure them to stay in HIV management cascade (Hull et al., 2012; Kranzer et al., 2012).

Several factors hinder FSWs access to HIV services and ARV treatment, including fear of stigma and discrimination related to sex work, fear of being seen by people they know, costs incurred, clinic operating hours, and low literacy on HIV and ARV treatment. Meanwhile, peer driven approaches that provide information about HIV care services are proven to be one of the factors that facilitate adherence and retention of care. (Dourado et al., 2019; Scambler & Paoli, 2008; Nyato et al., 2019). Therefore, it is important to identify their needs and challenges they are facing to access HIV treatment and care and to plan appropriate interventions. Intervention development appropriate for FSWs will facilitate better access to care and adherence to treatment and improve the HIV care continuum. (Montague et al., 2011). This study aimed to understand

the characteristics of FSWs living with HIV in Indonesia in the HIV care continuum and to identify challenges in terms of access and retention and the supporting factors.

METHODS Study Design

This study was a community-led study initiated by trained community researchers from the Organisasi Perubahan Sosial Indonesia (OPSI), a national organization network of FSWs in Indonesia. This study used a mixed-method design, consisted of a cross-sectional survey and a series of qualitative interviews conducted in four large cities in Indonesia, namely, Surakarta, Denpasar, East Jakarta, and Pekanbaru, during May and June 2019. These cities were purposively chosen based on the following criteria: (1) known have good practices in HIV treatment services for FSW individuals; (2) were selected as the sites for the lessons learned documentation of FSWs program; and (3) cities where OPSI has strong local network. The survey measured FSWs' sociodemographic characteristics, their literacy on HIV and antiretroviral treatment, their access to and retention in treatment, including viral load test. The qualitative interviews explored participants' experiences with HIV treatment services, covering challenges they faced and any support available for them regarding treatment access.

Study Population and Procedures

Study participants are HIV-positive FSWs located in 4 major cities in Indonesia. Enumerators recruited from the OPSI network collected research data in each of these cities. The enumerators were precedingly trained on survey techniques and ethical research principles, including protecting participants' data confidentiality. Quantitative data were collected from 80 FSWs living with HIV who declared their willingness to participate in the study. Participants were recruited with convenience sampling method through the OPSI partner network in each city. Data were collected by structured interviews, both face-to-face and by phone. Qualitative interviews were conducted with nine FSWs with positive HIV status who were previously involved in the quantitative survey. The nine FSWs were chosen purposively based on their performance characteristics in treatment, including the following: (1) consistent treatment without discontinuation; (2) had delayed starting the treatment; and (3) had discontinued the treatment and subsequently restarting the treatment. Qualitative interviews

No.	Characteristics	N (80)	% (100)
1.	Current age		
	\leq 24 years	7	8.8
	25-29 years	8	10.0
	30-34 years	12	15.0
	\geq 35 years	53	66.2
2.	Education		
	Junior High or lower	51	63.7
	Senior High or higher	29	36.3
3.	Residence status		
	Non-indigenous (live outside hometown)	58	72.5
	Indigenous (live in hometown)	22	27.5
4.	Marital status		
	Have not married	9	11.3
	Have been married	71	88.7
5.	Having resident Id		
	Yes	69	86.3
	No	11	13.7
6.	Health insurance card ownership		
	No	33	41.3
	Yes	47	58.7
7.	Knowledge on HIV		
	Poor	27	33.7
	Fairly good	44	55.0
	Good	9	11.3
8.	Knowledge on ARV		
	Poor	28	35.0
	Fairly good	48	60.0
	Good	4	5.0

Table 1. Socio-demographic characteristics, official identity and insurance cards ownership, and level of knowledge on HIV and HIV treatment

were conducted in a semi-structured approach by probing the experience in their HIV care and treatment.

Data Analysis

Quantitative data analysis was conducted in the form of descriptive statistics to describe the study participants' characteristics and the main outcomes of the study, namely, access and retention of participants along their HIV treatment cascade. Chi-square tests were conducted to assess whether there was a significant difference in FSWs performance in the HIV treatment cascade based on their characteristics and social situations. Qualitative data in the form of in-depth interviews recorded with audio recorder were transcribed verbatim. Double-checking was conducted to ensure consistency between the transcript and the recording in the audio files. Analysis was conducted with thematic analysis method by generating narratives and quotations corresponding to the predetermined themes. A designated

coder carried out the analysis by producing narrations and quotes that matched the predetermined theme. The quotes showing each theme used in this manuscript were then translated into English by the translator and reviewed by a checker to see if the translation results matched the original quote.

RESULTS AND DISCUSSION

Socio-demographic and Knowledge Characteristics

As shown in Table 1, most FSWs participated in this study were 30 years or older (81%), have been married (89%), and had an official resident ID (KTP) (86%). More than half had junior high education or lower (64%), had access to health insurance card (JKN) (59%), and were non-indigenous to the city where they stayed and worked (73%). Ownership of KTP and JKN is related to the ease of accessing health services. KTP is the resident's official identity as proof of self-issued by implementing agencies that apply

No.		n	% (100)
1.	Age at HIV diagnosis (n=80)		
	≤ 18 years	4	5.0
	19-24 years	11	13.8
	25-29 years	10	12.5
	30-34 years	16	20.0
	\geq 35 years	39	48.7
2.	Time since diagnosis (n=80)		
	< 1 year	14	17.5
	1-2 years	7	8.8
	years	32	40.0
	\geq 5 years	27	33.7
3.	Site of diagnosis (n=80)		
	Primary health center/Puskesmas	30	37.5
	Private clinic	17	21.2
	Hospital	13	16.3
	Workplace	13	16.3
	Others	7	8.7
4.	Reason for HIV test		
	Curious about their own health status	24	30.0
	Feel about having a risk	10	12.4
	Feel some symptoms of illness	13	16.3
	Employers' requirement	13	16.3
	Encouragement by field workers/peer educator	13	16.3
	Initiation by healthcare staff	4	5.0
	Invitation by a friend	3	3.7
5.	Support at the time of HIV test		
	Field workers/peer educator/peer support	34	42.5
	Own initiative	19	23.7
	Healthcare staff	14	17.5
	Employer (mami)	6	7.5
	Friend	6	7.5
	Family	1	1.3
6.	HIV status disclosure		
	None	15	18.8
	Family	25	31.3
	Partner	12	15.0
	Field workers/peer educator/peer support	18	22.5
	Friend	10	12.4

Table 2. HIV diagnosis and ARV treatment

throughout Indonesia (Minister of Law and Human Rights, 2006). KTP, among other things, functions as an essential document for population administration requirements, treatment, and making health insurance (Setiani & Tardimanto, 2020). BPJS ownership for Indonesian residents, including PLHIV, is related to receiving treatment fee waivers in health services. Treatment fee waivers are usually in treatment for opportunistic infections (IO) (Susyanti et al., 2017). In terms of relevant knowledge, more than a third of the participants had a low level of knowledge on HIV (33%) and ARV (35%). The knowledge level categorization was based on if the participants had correct answers to the two statements in the questionnaire regarding HIV and ARV.

Diagnosed with HIV

As presented in Table 2, most participants were diagnosed with HIV when they were adults (81%) and had known their HIV status for 2 years or more (74%). FSWs in this study generally were diagnosed at static healthcare facilities (75%), namely, in Primary Health Centers (Puskesmas), clinics, and hospitals. Most FSWs were diagnosed when they had HIV testing in their workplaces (16%) and only a small proportion was diagnosed during mobile HIV testing (4%). Dominant reasons encouraging FSWs to had HIV testing were because they would like to know their health status, was a rule in their employment site and due to experiencing illness.

In terms of support during HIV testing, the field workers were the most cited (43%), aside from the healthcare staff (18%), which was confirmed as well by our qualitative data. Most of the other participants (24%) stated that HIV testing was conducted based on their own initiative.

[...] a friend from the same workplace, but she also works in NGO. [...] that is why when she came, she showed us a small book containing some information like KIE (IEC=communication, information, educati-

No.		n	%	90-90-90* (%)
1.	Initiation of ARV (n=80)			
	Immediately started	53	66.3	95.1
	Delay	23	28.8	
	None	4	4.9	
2.	Retention of ARV treatment (n=76)			
	Regular drug consumption	65	85.5	81.3
	Irregular drug consumption	7	9.2	
	Discontinue drug consumption	4	5.3	
3.	Access to viral load test (n=65)			
	Ever	31	47.7	38.8
	Never	34	52.3	
4.	Viral load status (n=31)			
	Undetectable	21	67.7	26.3
	Detectable	6	19.4	
	Not known	4	12.9	
5	Treatment support (n=54)			
	Field officer	14	25.9	NA
	Friend	13	24.1	
	Partner	11	20.4	
	Family	10	18.5	
	Others	6	11.1	
6	Forms of treatment support (n=54)			
	Morale support	21	38.9	NA
	Information on ARV	14	25.9	
	Drug taking reminder	14	25.9	
	Others	5	9.3	

Table 3. ARV treatment and support

Note: *percentage of total study participants (n/80); NA=Not applicable

on), so I read the information on HIV from that book. (Jakarta 2)

[...] there is this VCT (=voluntary counseling and testing), I was told to go have some test, initially I am in doubt [...] and then sister R (a peer educator) gave me some explanation, it is okey, girl, if your test is negative, thank God. Yet, if it turns out positive, then let's go get treatment. [...] (Surakarta 1)

After diagnosis, several (19%) participants did not disclose their HIV status to anyone. In those who disclose their HIV status, most revealed the information to their families (31%), partners (15%), and field workers (23%). The reasons of HIV status disclosure to another person were the possibility that those people might provide help (31%), due to trust (28%), and due to similarly positive HIV status (25%).

Starting the Treatment

Table 3 shows that from all participants, 66% immediately started treatment when they found out their positive HIV status. The rest chose to delay or have not started the treatment yet. Those who immediately started treatment revealed their wish to live healthy (38%) and their wish to live longer and have children (17%) were their motivations to directly started treatment. Another reason that motivates FSWs to start their treatment is because of the support from healthcare staff. The form of support provided is by continuously monitoring the stability of treatment and the physical condition of FSWs and ensuring the involvement of partners to support their treatment. Healthcare staff who continuously monitor and ensure partner involvement in the treatment process also motivated participants to start treatment.

persuaded, let's go to the hospital. The doctor keeps calling him [...] Sir, bring your wife to the hospital, [...] It is better to be treated as soon as possible, bring her, and keep doing that, he said. [...] every day the counselor calls. (Pekanbaru 3)

In respondents choosing to delay treatment, the reasons were because the CD4 count was more than 250 cells/ μ l (26%), felt that they were not ready yet and still on treatment for opportunistic infections (13% each). Difficulty in dealing with the referral system in healthcare ser-

vice and not having any identity card were also barriers mentioned.

[...] he gave me a referral letter for general hospital. It was there that the cost would be affordable for me if I want a cheaper service, he said [...] but it is so complicated, that is why no one wants to get treatment [...], we think when we do it, it feels complicated. [...] we went there, waiting, [...] then they gave a paper for picking up the drugs, and it took a long time. (Pekanbaru 1)

At that time, they make it difficult, since I did not have a residence card, and I also did not have insurance (BPJS) [...] I used the family household card to go have a check in Persahabatan for treatment, and from there... the Head of RT (= neighborhood) made me one. (Jakarta 1)

Maintaining the Treatment

From 76 participants who started their treatment, 86% admitted that they were still consistently taking the ARV (Table 3). During treatment, most participants (83%) stated that they received positive support from the available support system, as shown in Table 3.

Our qualitative findings also suggested that self-acceptance towards HIV status seems to be one of the factors facilitating the FSWs in maintaining their treatment. Another factor that also might help was the role of companion in providing understanding of the treatment and helping to pick up the drugs when the patients needed it.

Now I can put things in balance, I have accepted it as it is, if my time comes then so be it, that is my destiny, I surrender myself, if I am still given opportunity to accompany my beloved Mom particularly, then I have to take the drugs diligently. (Denpasar 2)

So, I told my companion, Om, I will go back to my hometown in a few days, would you mind getting me my drugs, I am afraid the stock is run out, [...] then my companion picked up the drugs for me. (Surakarta 1)

Joining a peer support group also had a role in increasing treatment adherence. Nearly a quarter of the participants (24.1%) expressed that their support came from friends. Therefore, routinely attending the support group meetings may facilitate respondents to share stories on their treatment experience to motivate them more to get treated better. Another factor also considered to support consistency in treatment was the initiative from ARV treatment service in providing reserve stock to anticipate the FSW delay in getting their drug package the next month.

The only way for me to meet PLHIV (= people living with HIV) who were consistent in taking drugs. Sharing stories, discussions, are the most effective ways I think. [...] if my mind is positive, I bring my mind to the direction that I want to be healthy. [...] but it is difficult to get that way of thinking from ourselves, right, we are not always thinking that way. [...] So the more often I meet with peer PLHIV to share our thinking, it is really useful. (Jakarta 2)

The hospital always gives me more drugs than I need, I mean when they give me a monthly package, they always add drugs for one or two more days. [...] Usually for three days [...] because sometimes when we want to pick up the drug on that day [...] who knows we are sick. We cannot go, while our drug stock has run out (Pekanbaru 3)

Drugs Discontinuation and Restarting the Treatment

Participants who had discontinued the treatment reported that having adverse effects in the beginning of the treatment period, rejection from the family, and feeling tired in taking the drugs were the main factors that have caused the discontinuation.

My obstacle at the beginning was the side effect, that sometimes makes me think why I have these side effects... sometimes that makes me unwilling to take the drugs. (Jakarta 2)

my family shut me out [...] I feel so stressed at last. you can imagine how it is when you get shut out. Well how do you say it, they humiliated me, I am insulted by my friends as if I am worthless. Anyone who is treated that way by their family will feel down [...] we feel dejected [...] cannot remember anything eventually and too weary to take the drugs. (Denpasar 2)

[...] yeah sometimes I feel more desperate, that is why I stopped taking the drugs [...] for almost around 10 months or so. [...] Well, I feel tired when I have to take the drugs every day for 12 hours. [...] In the end I feel tired of it [...] like someone stressed out, you see. Ah never mind, I thought, I just stop, what can I do anyway, if I have to die then I die, it is my destiny. (Surakarta 1)

Meanwhile, FSWs would restart the ARV treatment when they found their condition was worse or having certain symptoms after stopping the drugs for a while. Other factors mentioned that driving them to restart the treatment was the persistence of their companion in motivating peer FSWs who were HIV positive, while being in healthy condition due to consistently taking ARV.

With my companion, [...] she keeps chasing me for a year. [...] she keeps looking for me in that place. Why do you stop taking the drugs, well I cannot answer. My reason is that I am pregnant... yeah if you are pregnant, then do not stop it, think about your child. [...] the point is that my child (should not) gets infected

like that [...]. (Surakarta 1)

Have stopped 2 times. I was also felt sick, and finally had to be treated in the hospital. [...] could not bear the side effects. [...] The first time I took the drugs for almost 3 years and then I stopped, and finally had to be hospitalized in Cipto Hospital. [...] when I almost have taken it for 5 years I stopped again, hospitalized in Persahabatan (hospital). And then in the 6th year I do not want to stop again, I am tired of it. (Jakarta 1)

Monitoring Treatment Success

As presented in Table 3, less than half of the participants who consistently taking ARV (47.7%) had accessed viral load (VL) testing for at least once since they started the treatment. Among them, two-thirds (67.7%) reported undetectable test results. Meanwhile, reasons most often stated by those who have not accessed VL test were lack of knowledge on the benefit and importance of VL test (50%) and the expensive testing cost (29%). Moreover, our bivariate analysis demonstrated that having knowledge good on HIV (p = 0.015), insurance (JKN) ownership (p =0.001), and the time since HIV status is known (p = 0.0001) were associated with access to VL test. This finding suggested that to improve FSW access to the VL test; future intervention may need to focus on making sure FSWs can access JKN and increase their HIV-related knowledge, especially those newly diagnosed with HIV.

Results from this study describe the experience of FSWs with HIV in Indonesia along their management cascade, support, and treatment of HIV. Among the opinion that FSWs usually are unwilling to access healthcare facilities due to their susceptibility to stigma and discrimination, this study found that most FSWs with positive HIV status were diagnosed in healthcare facilitybased HIV testing service. Even though some of them have delayed their treatment, a majority of FSWs diagnosed with HIV eventually started the treatment. FSW retention in treatment was relatively fairly good, although there were some FSWs who did not consistently take the drugs, or eventually discontinued the drugs. However, the proportion of individuals who had access to treatment monitoring with VL test was still low, so that there was only a small proportion of FSWs living with HIV who were able to confirm the success of their ARV treatment.

As emphasized above, stigma and discrimination are factors that hinder FSWs access to both HIV testing and ARV treatment services. Several FSW participants in this study confirmed their status from HIV testing results at their workplaces (e.g., brothel, entertainment venues). Aside from stigma and discrimination, the nature of FSWs work often made it difficult to access HIV testing in healthcare facilities during regular service hours (Chanda et al., 2017; Martins, et al. 2018; Tokar et al., 2018). HIV testing service in the form of a mobile clinic held FSWs' workplace is a form of community-based testing service that may solve this structural barrier (Dugas et al., 2015;). Some FSW employers apply a policy that obligates their employees to get tested for HIV. (Nnko et al., 2019). Therefore, it is important to examine the power relations between them and the manager or owner of the workplaces, as well as the relationship patterns among sex workers.

Knowing about the relationship patterns will also be beneficial for FSWs diagnosed with HIV. As soon as the HIV status is confirmed, FSWs should be directed to initiate ARV treatment. Early treatment initiation may help the body to respond better to the drugs adverse effects and to accelerate viral suppression (Mugavero et al., 2012). Even though some of the FSWs in this study had delayed their treatment, almost all have started ARV treatment. In line with Nakanwagi et al. (2016), the decision of FSWs to start treatment includes their wish to be healthy and to live longer for their family. Support from healthcare staff, as well as from community workers, is also involved in encouraging the PLHIV to initiate HIV treatment (He et al., 2019). As shown by similar studies, factors leading to the delay in starting treatment in FSWs were complicated healthcare service flow, staff attitude, financial problem, not having health insurance, waiting for the right time to take the drugs, and not wanting to be treated (Chirambo et al., 2019; Surratt et al., 2014; Fatukasi et al., 2017). The "Test and treat" strategy has been widely applied in Indonesia since 2014. Therefore, since some participants have been diagnosed for 5 years or more, previous national ARV treatment service protocol (before 2014) that requires CD4 count of ≤ 200 cells/µl before starting the treatment seems to explain the delay in treatment.

An earlier finding of HIV status may lead PLHIV to start treatment and care earlier, which will really help in treatment success (WHO 2007; WHO 2012; Denison et al., 2008). Stigma and discrimination susceptibly occurring in key population groups, including FSWs, may hinder access to the healthcare service, particularly those in healthcare facilities such as clinics, hospitals, or primary health services (Sulat et al., 2018). In this study, a majority of FSWs stated that they took HIV testing in healthcare facility-based service. This at least indicates that healthcare facilities in Indonesia are adequately sensitized to services for FSWs. This also might be possible due to the good relationship between NGOs and the healthcare facilities, considering the proportion of those who suggested that they received help from NGO staff during HIV testing was quite large. Aho et al. (2012) underlined that the significant involvement of community workers in healthcare facility system may significantly widen the scope of the service (Celletti et al., 2010).

In addition to the support from those around them, a positive attitude from within the FSWs themself can also affect ARV treatment. This study supports that self-acceptance of HIV status promotes PLHIV to stay on treatment. PLHIV who have been able to accept their HIV status tend to be more comfortable to disclose their status to others (Horter et al., 2017), and this facilitates them to be adherent and consistent with their treatment (Bezabhe et al., 2014). Some support provided by those around the FSWs may also increase treatment adherence (McCoy et al., 2009). We found that FSWs would disclose their status to those who they believe could provide the support they need. The forms of support usually received by the PLHIV from a family, partner, and friend, including peer support group, were morale support, drug-taking reminder, and the help to access the treatment (Knodel et al., 2010; Chime et al., 2018; Marino, 2007; Wells, 2018). It is crucial to develop a system that ensures that every FSWs newly diagnosed with HIV can easily identify those who can provide support. Besides, it is also important to ascertain that those parties are able to gain trust from the new PLHIV, so that they do not lose their motivation or fall prey to incorrect information, which eventually may lead to treatment discontinuation.

This study also confirms that the beginning of the treatment is a susceptible period for drug discontinuation. The inability of FSWs diagnosed with HIV in managing adverse effects at the initial period of their treatment is one of the factors that may cause the FSWs discontinued their treatment (Bezabhe et al., 2014). Some were persuaded to switch to herbal medicine (Chirambo et al., 2019). In line with other studies, the lack of literacy in treatment, stigma and discrimination from families and close relations, and the weariness in taking the drugs are other factors that might facilitate treatment non-adherence in PL-HIV (Oku et al., 2013; Kheswa, 2017; Bukenya et al., 2019). This shows that comprehensive education and adequate counseling should be available in ARV treatment service (Chirambo et al., 2019). Furthermore, ensuring that newly diagnosed

FSWs have a good support system, particularly at the beginning of therapy, is also important. This includes providing treatment navigators trained on patient strength-based approach in managing cases, in the aim to encourage PLHIV who has discontinued to restart their treatment (Parnell et al., 2019).

The success of ARV treatment in people living with HIV can be indicated by a decrease in the viral load in their bodies. Each individual undergoing ARV treatment is expected to achieve suppressed viral load condition that indicates treatment success. Therefore, each PLHIV in treatment are encouraged to examine their viral load level to ensure effective treatment. In cases where viral load is not suppressed, the information can help doctors to determine the next treatment (WHO, 2010). FSWs living with HIV and had undergone treatment will be able to confirm treatment success if they have access to viral load service, which unfortunately is not always true. This study shows that many FSWs living with HIV had never accessed viral load service. Financial problem and the lack in understanding the importance of benefit of assessing the viral load level seems to be associated with the limited access. Even though it is not clear if national health insurance in Indonesia includes viral load testing cost. Our analysis showed a positive association between health insurance (JKN) ownership and viral load testing access for FSWs living with HIV.

Data collection that was fully conducted by community researchers enables this study to portray several issues that might not be discovered if it was conducted by non-community researchers. Given that this group is vulnerable to stigma and discriminatory treatment, it is difficult for them to open up to strangers fully. Therefore, having data collectors come from fellow FSW peers, especially in qualitative interviews, can make them more open to providing sensitive information. This study has several limitations. Firstly, the determination of data collection sites was conducted with convenience sampling, leading to the results that might not be able to be generalized as a common phenomenon in Indonesia. Second, selection bias might occur considering the study participants were recruited through community network owned by the OPSI, therefore our results might not represent the experience of FSWs who have not been reached by HIV programs. Moreover, as majority of the participants are older FSW, our findings may be less relevant for the younger group of this population. Yet, this may as well reveal exclusion of the younger group from accessing organizational support that OPSI's network has to offer. Third, the sample size was relatively small, and the sampling was conducted with nonrandom method, leading to a majority of correlational analyses were inconclusive.

CONCLUSION

This study mainly contributes an additional scientific reference for the care and treatment of HIV programs in Indonesia, particularly for the FSWs population. This study suggests that interventions directed at strengthening the literacy in care and treatment of HIV for FSWs living with HIV are critical. This literacy should also include managing and responding to actions and attitudes suggestive of stigma and discrimination towards them. The systems in HIV service need to ensure that newly diagnosed FSWs should receive appropriate information and the needed support, including on their access to viral load testing service. Identifying as many potential support systems as possible around the FSWs, such as families, peer friends, field workers, and influential figures, is needed. To increase HIV testing coverage and anticipate FSWs living with HIV who are lost-to-follow-up from their treatment due to migration, the ARV treatment service system should also develop an information system-based referral mechanism responsive to FSW mobility.

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