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Reducing HIV stigma and discrimination towards people living with HIV among healthcare workers at Primary Health Clinic

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Abstract: Stigma and discrimination (S&D) towards people living with HIV (PLHIV) among healthcare workers (HCWs) in primary care are evidenced by discriminatory attitudes and perceived discrimination by PLHIV. Addressing this issue is crucial for improving patient adherence to treatment plans and achieving the goal of ending the AIDS epidemic by 2030. This project aims to determine the factors contributing to S&D towards PLHIV among HCWs in primary health care. The study consists of five phases, including four quantitative and one qualitative observation, conducted from September to December 2020. Two phases focused on staff training to measure knowledge, attitude, and practice (KAP), concluding with an in-depth interview. An audit of laboratory forms assessed labeling practices, and the 'My Journey Survey' identified areas associated with discrimination. Results showed that HCWs without training demonstrated more S&D. Paramedics and pharmacists had moderate to high knowledge scores, but their attitudes and practices were average. The bleeding room and pharmacy were identified as areas with acts of discrimination. Several interventions were implemented to improve HCW knowledge and practices, eliminate labeling practices, and enhance patient education and treatment literacy. Post-intervention surveys revealed significant improvements in most S&D domains among HCWs, with the achievable benefit not achieved (ABNA) gap closed from 19% to 0%. In conclusion, multi-pronged and consistent interventions are necessary to eliminate discrimination among HCWs towards PLHIV, focusing on increasing knowledge, changing work processes, and continuous promotion of awareness.

Keywords: stigma and discrimination, people living with HIV, healthcare worker, primary care

1. Introduction

Stigma refers to being perceived as deviating from expected norms, leading to a mental shift in how the individual is viewed, resulting in devaluation and rejection (Goffman, 1963). HIV-related stigma, a deeply ingrained form of discrimination, profoundly affects individuals living with HIV and contributes to broader discriminatory attitudes within communities (Stangl et al., 2019). HIV discrimination involves treating PLHIV differently from those without the virus. S&D is a significant barrier to HIV/AIDS care, as discrimination from HCWs discourages individuals from getting tested, seeking treatment, and accessing care due to the stigma associated with being HIV-positive.

In many parts of the world, reports indicate that some HCWs are likely to discriminate against PLHIV and deny services to higher-risk population groups. For instance, research in Indonesia has shown that negative attitudes among healthcare providers can be prevalent

during the early stages of decentralizing HIV services to primary care (Hidayat, 2023). This issue is not confined to specific regions. In Zambia, healthcare settings often foster an atmosphere where both HCWs and PLHIV experience stigma, but fear disclosing it due to potential repercussions (Mulubale et al., 2022). A 2020 study in Malaysia revealed that only 40% of HCWs had a positive attitude toward PLHIV, with most of them being doctors (Yadzir et al., 2021). The study also showed that only a quarter of nurses and medical assistants, and a third of pharmacists and pharmacist assistants, had positive attitudes toward PLHIV. Research among medical (Chew & Cheong, 2013) and dental students (Singh et al., 2017) also indicated that stigmatizing attitudes toward PLHIV are prevalent, suggesting the problem begins before HCWs start their careers.

A baseline survey conducted among PLHIV attending Tanglin Health Clinic in July 2020 found that 19% of PLHIV experienced discrimination during their clinic visits. This was further corroborated by nearly 80% of surveyed HCWs expressing fear of contracting HIV and being unaware of the latest HIV guidelines, despite knowing about the protocols. During a brainstorming session, three quality problems related to HIV stigma and discrimination were identified by the team: (1) increased stigma and discrimination among HCWs towards PLHIV, (2) increased prescription errors, and (3) reduced pre-pregnancy care enrollment among female diabetes patients of reproductive age. Based on SMART criteria (seriousness, measurability, appropriateness, remediability, and timeliness), the first issue was prioritized for further study.

The health consequences of HIV stigma and discrimination are considerable. Patients often delay seeking care, particularly when stigma compels them to hide their HIV status until they are critically ill. Stigma from healthcare professionals and societal discrimination discourages individuals from testing and accessing care (Schweitzer, 2023). HIV-related stigma and discrimination create a cycle of isolation for PLHIV, deterring them from seeking timely care (Nyblade et al., 2019). Tackling HIV stigma and discrimination in healthcare settings, particularly at the first point of care in primary healthcare, is essential for improving both individual and public health outcomes and advancing global HIV elimination goals.

This Quality Assurance (QA) study aimed to determine factors contributing to the high incidence of HIV-related stigma and discrimination among HCWs in primary healthcare. Discriminatory behavior towards PLHIV may stigmatize them and push them away from treatment, leading to client complaints and harming the organization, as HCWs may be unaware of the latest guidelines for managing PLHIV. The study hypothesized that HCWs likely have poor knowledge and training regarding the management of PLHIV and outdated knowledge of relevant standard operating procedures and guidelines. The primary objective was to reduce HIV-related S&D among HCWs in the clinic, with specific goals to measure the magnitude of S&D, identify contributing factors, formulate proper remedial actions, and evaluate the effectiveness of corrective actions.

2. Materials and Methods

This quality project consisted of five phases conducted from September to December 2020, designed to verify the factors contributing to the issue. Necessary permissions were

obtained from both the District Health Office and the State Health Department before initiating the project.

First, a quantitative observation was conducted using a validated standardized questionnaire by Nyblade et al. (2013). This brief standardized tool for measuring HIV-related stigma among health facility staff was used to assess HCWs' training in topics such as infection control and universal precautions, HIV S&D, patient consent, privacy, and confidentiality. The instrument also examined HCWs' fear of contracting HIV.

Subsequently, knowledge, attitude, and practice (KAP) questionnaires were administered to paramedics and pharmacists, as their workstations had the highest levels of discrimination in the baseline survey. An in-depth interview (IDI) was conducted with selected HCWs who exhibited low attitudes and practices in handling PLHIV.

In addition, a two-week quantitative observation was carried out on laboratory forms given to PLHIV to assess biohazard labelling practices. Finally, a self-administered, open-ended questionnaire called the 'My Journey Survey' was distributed among anonymous PLHIV. This survey allowed respondents to identify specific stations within the clinic where they felt they experienced discrimination from HCWs.

The contributing factors of HIV S&D were analyzed using a problem analysis chart (Figure 1). After excluding factors beyond HCWs' control, such as high staff turnover rates, a dedicated appointment book, and clinic limitations, the main contributing factors identified included an inappropriate work environment, inexperienced HCWs, lack of knowledge regarding HIV, and negative attitudes among HCWs. The possibility of internalized stigma among PLHIV that could influence these attitudes was also considered.

The current care processes were reviewed, and critical steps for improvement were identified, as shown in Figure 2. The key indicator for improvement was the percentage of PLHIV who did not experience S&D. This percentage was calculated by dividing the number of PLHIV who reported not experiencing discrimination during their clinic visit by the total number of PLHIV who completed the HIV-related S&D questionnaire. The questionnaire used was a validated instrument by Srithanaviboonchai et al. (2017), which was previously employed to build the evidence base for healthcare stigma and discrimination-reduction programs in Thailand. The standard goal was zero discrimination experienced by PLHIV, as outlined by the Joint UN Programme on HIV/AIDS (UNAIDS).

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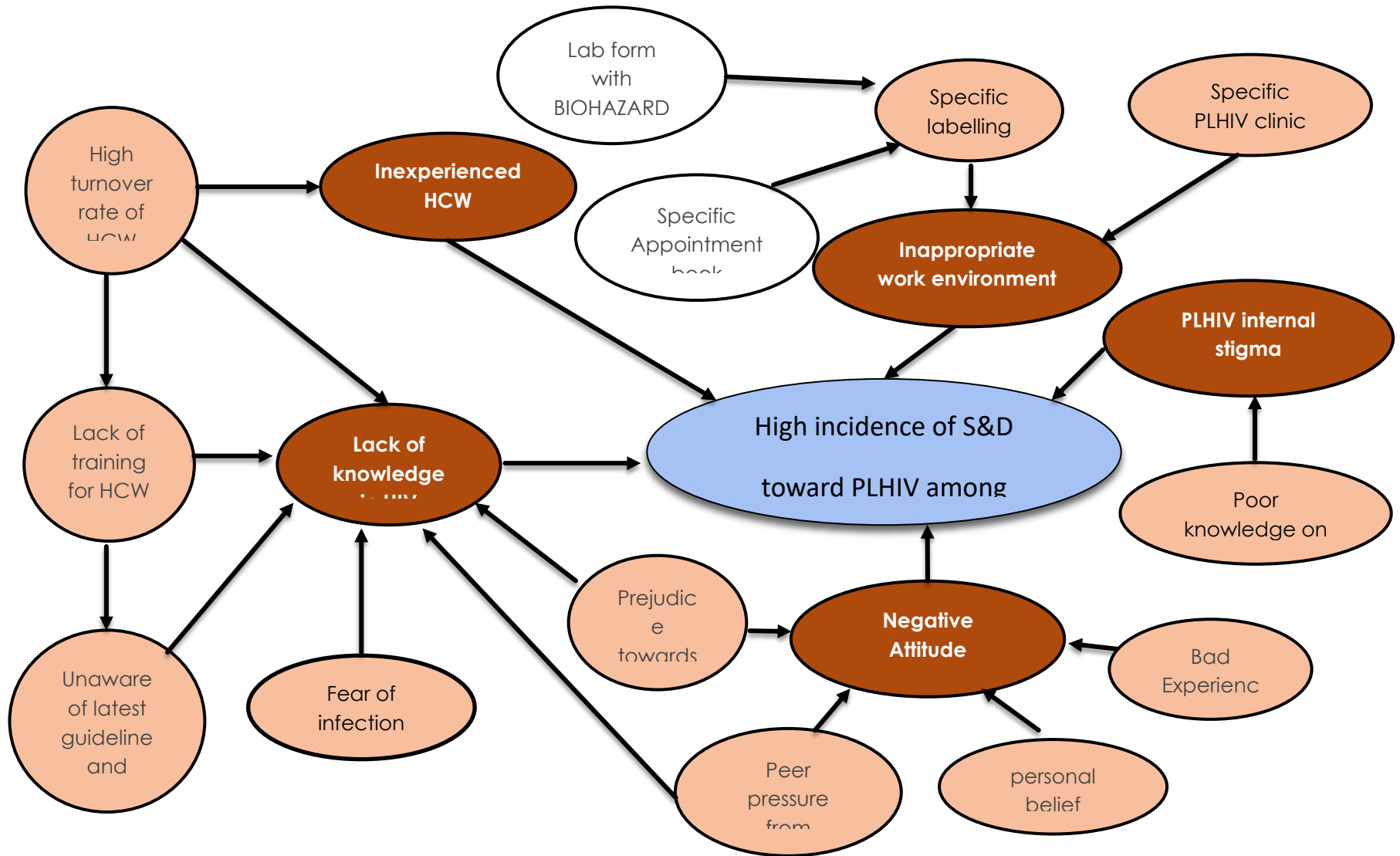


Fig.1. Problem Analysis Chart

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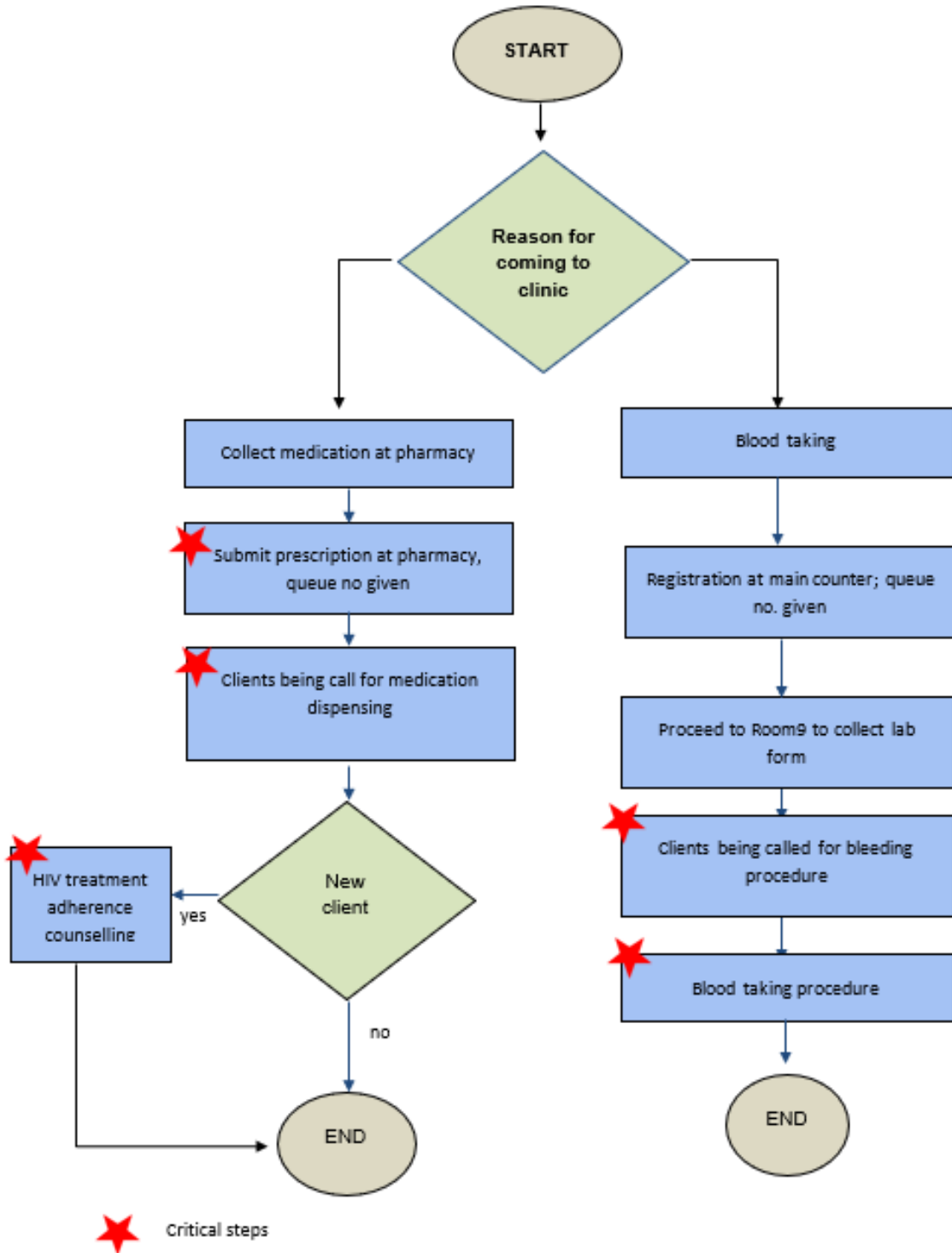


Fig.2. Process of Care

3. Results and Discussion

3.1 Analysis and Interpretation

In the first observational study (response rate: 111/141 = 78.7%), only 57% of HCWs had attended training on at least one HIV-related topic, such as universal precautions, patient consent and confidentiality, infection control, and HIV S&D. The study found that HCWs without training were more likely to express fear of contracting HIV, particularly during specific tasks: blood drawing (71%), dressing wounds (73%), touching PLHIV clothing (41%), taking PLHIV temperatures (18.75%), and performing physical examinations (23%). Additionally, 58.3% of untrained HCWs wore double gloves when seeing PLHIV, compared to 41.8% of those who had received training.

In the KAP study, paramedics and pharmacists demonstrated excellent knowledge of HIV, but HCWs scored only moderately in terms of attitude and practice. Pharmacists showed the lowest scores in practice, which led to an in-depth interview (IDI) with 10 pharmacists. The IDI revealed that most pharmacists claimed to follow good practices and did not believe they discriminated against PLHIV in the workplace.

The assessment of labelling practice revealed that 67% of lab forms given to PLHIV were marked as 'biohazard,' confirming discriminatory acts. Additionally, the 'My Journey' survey found that 9% of PLHIV reported experiencing stigma at the pharmacy, while 13% faced discrimination during blood procedures in the clinic.

3.2 Strategies for Change

Five strategies have been formulated to address the contributing factors causing the high S&D among HCWs towards PLHIV in our clinic. These strategies were collectively called "Tanglin SeRaSP"- Stigma Reduction Strategic Initiative:

- i. **Remove Inappropriate Work Environment:** The biohazard stamping practice was eliminated. Additionally, the clinic transitioned to the Teleprimary Care – Oral Health Clinical Information System (TPC-OHCIS), which generated system-based lab forms instead of manually stamped ones. Posters and guidelines on blood drawing, medication dispensing, and counseling were strategically placed in the clinic to improve HCWs' access to information.
- ii. **One-Stop RVD Clinic:** A Retroviral Disease (RVD) one-stop clinic was established to meet the needs of PLHIV more effectively. Paramedics, counselors, pharmacists, and doctors were located in adjacent rooms, minimizing patient movement and reducing their exposure to S&D from HCWs.
- iii. **Training on S&D Reduction:** A series of workshops using the HOPE module (*Hentikan Stigma dan Diskriminasi kepada ODHA dan Populasi Tertumpu*) was conducted for HCWs. The module, developed by the Ministry of Health Malaysia's HIV/STI/Hepatitis C sector, familiarized participants with terminology related to PLHIV, key populations, and different

sexual orientations, identities, and gender expressions. Role-play sessions and personal accounts from PLHIV were also used to increase empathy and reduce S&D.

- iv. **Continuous Education:** New staff members received infection control briefings, which included discussions on S&D. Continuous medical education (CME), infographics, and videos were employed to keep HCWs informed. At least bi-annual activities organized by the HIV unit strengthened these interventions.
- v. **Patient Education:** A flipchart was introduced to assist HCWs in educating PLHIV during consultations and counseling sessions. In addition, a Telegram channel titled ‘Infomasi Kesedaran HIV Klinik Kesihatan Tanglin’ was launched to provide PLHIV with relevant medical information about HIV, thus improving their treatment literacy and reducing internalized stigma.

3.3 Effect of Change

The biohazard labeling practice was abolished due to the introduction of system-generated lab forms. HCW training on HIV S&D increased from 57% at baseline to 65%. Significant improvements were observed across five out of eight S&D domains among HCWs, including:

- i. Reduced concern about taking blood from PLHIV (from 84% to 70%)
- ii. Decreased use of double gloves (from 63% to 50%)
- iii. Reduced reluctance to care for PLHIV (from 40.5% to 9%)
- iv. Improved care provided to PLHIV (from 39.6% to 7%)
- v. Increased awareness of HIV guidelines (from 40% to 28%)

Further improvements were noted during the second cycle of assessments (Figure 3). For example, concerns about taking blood from PLHIV dropped to 44%, and the use of double gloves was further reduced to 28%. The percentage of HCWs unwilling to care for PLHIV fell to 4%, and those providing poor care dropped to 5%. Moreover, the number of HCWs unaware of written guidelines decreased to 22%. Notably, initial concerns about physical contact with PLHIV (18%) also declined by the second cycle. Additionally, the percentage of HCWs who disagreed with women living with HIV becoming pregnant dropped from 34% to 22%.

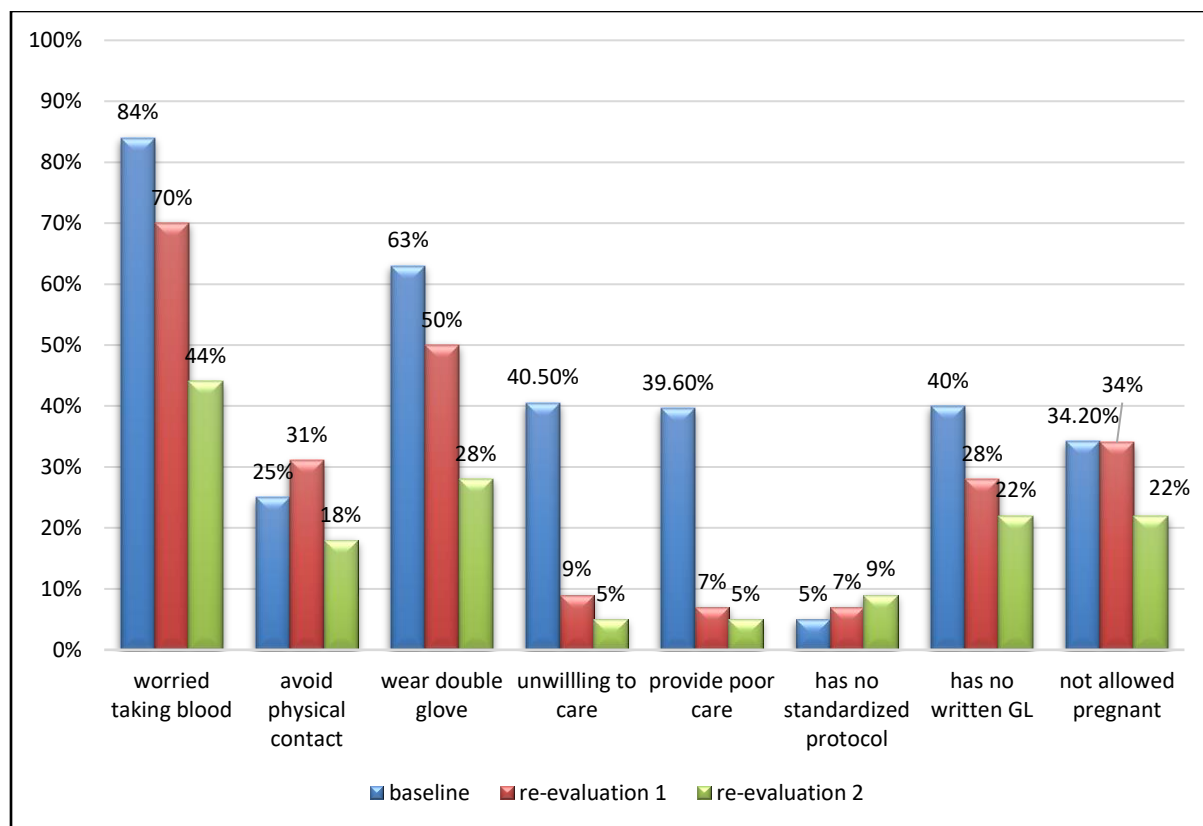


Fig.3. Effect of Changes on HCW after first and second re-evaluation

3.4 Discussion

This study revealed that HCWs harbored internal stigma and engaged in discriminatory behavior towards PLHIV, despite their roles as healthcare advocates. However, the interventions demonstrated that these behaviors could be changed and improved. Routine activities, such as continuous medical education (CME) and workshops, should be implemented regularly to reduce HIV S&D among HCWs. Furthermore, scheduled re-evaluations of S&D levels among both PLHIV and HCWs should be conducted every six months.

The project also measured the **Achievable Benefit Not Achieved (ABNA)** gap, which represents the difference between the current and optimal performance levels in healthcare delivery. Before the intervention, the ABNA gap was 19%, indicating that healthcare services for PLHIV were 19% below optimal levels. After implementing the Tanglin SeRaSI package, the ABNA gap was reduced to 0% as showed in Figure 4, indicating that the intervention allowed HCWs to provide high-quality, stigma-free care, directly improving outcomes for PLHIV.

To further assess the clinical outcomes, the viral load suppression status of PLHIV attending the Tanglin Health Clinic from 2019 to 2021 was measured (Figure 5). The data showed that more patients were registered and initiated on antiretroviral therapy (ARV) after the intervention, which could indicate the effectiveness of the Tanglin SeRaSI package.

Previous studies have shown that interventions addressing HIV-related S&D in healthcare settings—particularly educational programs that improve HCWs' understanding of

HIV—can be effective. Such programs challenge common misconceptions about HIV transmission, which often drive stigmatizing behaviours. For example, a study in Iran demonstrated that HIV-related educational training significantly reduced stigma among healthcare providers (Tavakoli et al., 2019). Beyond education, fostering empathy and promoting supportive healthcare environments are also crucial. A comprehensive stigma-reduction approach, combining education, policy reform, and organizational culture change, is necessary.

The strength of this study lies in the involvement of all clinic staff in the intervention, including dental staff. Support from the state health department, the Malaysia AIDS Council, and the Ministry of Health's HIV Sector further strengthened the project. However, limitations include delays caused by the COVID-19 pandemic and the high turnover rate among HCWs, which necessitated frequent training and sensitization on HIV-related S&D.

Discussion with the district health office on the possibility of regularly organizing HIV S&D workshops at the clinic or district level was made to ensure the program's sustainability. The findings of this study have also been presented to the HIV sector at the state and national levels. The Tanglin SeRaSI package is now being used as a reference for other health facilities in the Federal Territory of Kuala Lumpur and Putrajaya to reduce HIV-related S&D in their settings.

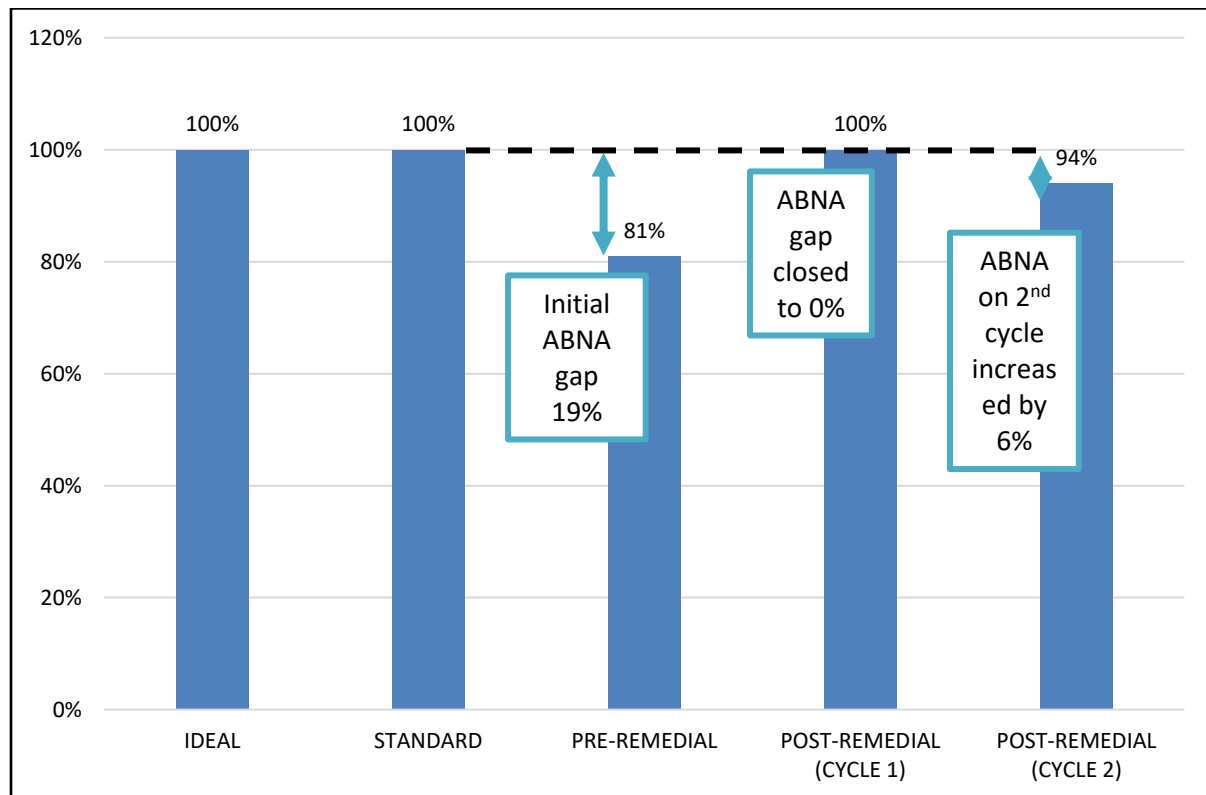


Fig.4. Effect of Changes on ABNA

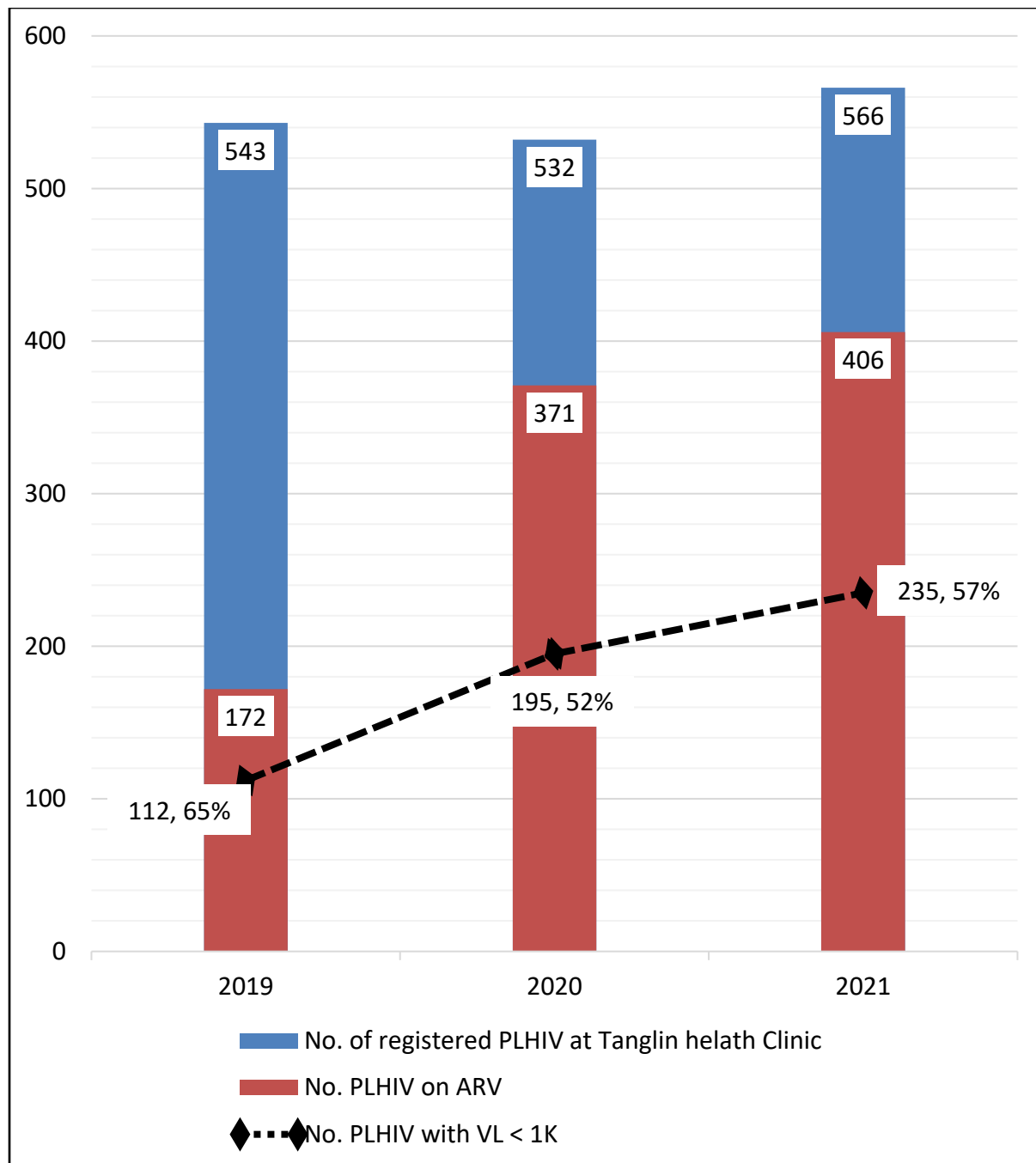


Fig.5. Clinical outcomes of Viral Load Suppression among PLHIV at Primary Health Care

4. Conclusion

This study demonstrates that the multi-pronged approach of the Tanglin SeRaSI package effectively reduced HIV-related stigma and discrimination (S&D) towards people living with HIV (PLHIV) among healthcare workers (HCWs), resulting in improved patient outcomes. The Achievable Benefit Not Achieved (ABNA) gap was reduced from 19% to 0% after the first cycle of intervention assessments, indicating that even slight improvements in S&D among HCWs significantly decreased perceived discrimination from PLHIV.

The results confirm that consistent, targeted interventions—focusing on education, process improvements, and promoting awareness—are key to achieving zero discrimination in healthcare settings. Continuous efforts, such as regular training, workshops, and re-evaluations, are essential to maintaining these positive changes and ensuring that PLHIV receive high-quality, stigma-free care.

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Conflict of Interest

The authors acknowledge no financial or personal relationships that may have inappropriately influenced them during the write-up of this article.

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