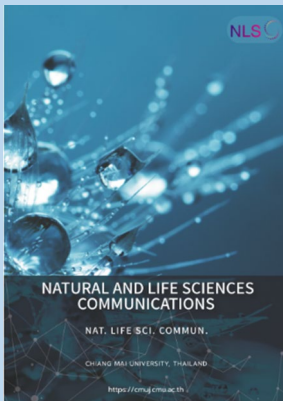


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Stigma and Discrimination Towards People Living With HIV/AIDS Among Myanmar Migrants in Chiang Mai Province, Thailand

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ABSTRACT

HIV remains a significant public health concern among migrants in Thailand, a central migration hub in Southeast Asia. Reducing HIV-related discrimination is a major goal of Thailand's National Strategy to End AIDS: 2017-2030. The study aimed to examine the level of stigma towards people living with HIV and associated factors among Myanmar migrants. A cross-sectional study was conducted among Myanmar migrants in Chiang Mai province from October to December 2023. A total of 424 migrants attending hospital health screening and community gatherings were recruited by a convenience sampling method. Average age of participants was 29.92 ± 7.9 years, married (56.8%), and primary or lower education (67.5%). 85.1% had discriminatory attitudes toward people living with HIV/AIDS. Significant factors associated with discriminatory attitudes included being of Shan ethnicity (aOR=2.419) and having a low education level (aOR=2.559). HIV preventive strategies should include inclusive health education and accessible health care that are culturally sensitive among migrants.

Keywords: Discrimination, HIV/AIDS, Myanmar migrants, PLWHA, Stigma

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INTRODUCTION

Despite three decades of progress in control of human immunodeficiency virus (HIV), it continues to be a global health issue with 38 million people living with HIV, 1.5 million new cases, 650,000 people died of HIV-related causes, and 75% on antiretroviral therapy globally in 2021 (WHO, 2022b). In Thailand, the estimated number of people living with HIV was 520,000 in 2021 with an incidence rate of 0.09 per 1000 uninfected population (WHO, 2022c).

The goal of WHO Global Health Sector Strategy (WHO, 2022a) is to end AIDS and epidemics of viral hepatitis and sexually transmitted infections by 2030, by working together to address common health needs while maintaining disease specificity. Thailand's National Strategy to End AIDS: 2017-2030 (National AIDS Committee, 2017) is composed of 3 goals to achieve in 2030, which are to (1) reduce new HIV cases to less than 1,000 per year, (2) reduce AIDS-related deaths to less than 4,000 cases per year and (3) reduce discrimination based on HIV or gender by 90%. People living with HIV/AIDS (PLWHA) and migrant workers are a part of key target populations. Migrants are classified as a vulnerable group to getting infected with HIV/AIDS compared to the general population (Weine and Kashuba, 2012).

Thailand is the main migrant hub in South-East Asia (ILO, 2022). There was a total of 2,167,937 migrant workers documented in Thailand as of 2022, whereas 60.9% were from Myanmar (ILO, 2022). Those migrants are working primarily as unskilled laborers in construction, factories, household labor, and community services. In Chiang Mai Province, there were 101,377 migrant workers in December 2022, of which 99% (100,575) were Myanmar migrants (Office of Foreign Workers Administration, December 2022), the majority belonging to Shan (Tai-Yai) ethnicity.

With the increasing trend of transborder migration, there is a higher risk of spreading infectious diseases. The prevalence rate of HIV among non-Thai migrant workers in Thailand was 0.2% in 2020, whereas the trend has decreased from 1.3% in 2010 (Department of Disease Control, 2021). Labor migrant's HIV risk was influenced by multilevel determinants of policy, sociocultural context, and sexual practices (Weine and Kashuba, 2012). Stigma and discrimination are a part of structural determinants and a challenge in providing HIV care to migrants (Suphanchaimat et al., 2014; McBride et al., 2021).

According to five yearly national health examination surveys (NHES) in Thailand, nearly half of Thai (48.6%) still had a negative attitude toward PLWHA in the 2019-2020 round (Chautrakarn et al., 2023). PLWHA were blamed as the source of infection and promiscuity (Dahlu et al., 2015; Yeo and Chu, 2017). The perceived stigma affects negatively on every stage of HIV care ranging from disclosure to the quality of life. PLWHA prefers to keep secret their HIV status (Jirattikorn et al., 2020) and that let not to negotiate condom usage with regular partner (Ayuttacorn et al., 2019). In addition, the perceived stigma extended into the daily personal relationship that people do not want to buy food from HIV-positive vendors (Suantari, 2021; Ha et al., 2022). Moreover internalized stigma among PLWHA became one of the barriers to accessing care and adherence in the continuum of care (Murray et al., 2016; Armoon et al., 2021). Apart from the HIV care cascade, experienced stigma affects negatively on general well-being and higher chance to get depression among PLWHA (Chambers et al., 2015; Mathew et al., 2020; Aupibul et al., 2022).

Discrimination refers to the actions and behaviors that result in unfair treatment on individuals based on their HIV status. Stigma towards PLWHA is related to the specific socio-demographic factor of age, ethnicity, religion, marital status, knowledge of HIV, economic status, and education (Dahlu et al., 2015; Xing et al., 2016; Yeo and Chu, 2017; Li et al., 2017; Suantari, 2021; Ha et al., 2022; Chautrakarn et al., 2023). Various determinants such as social support, education, self-efficacy, resilience activities and advocacy are needed to handle HIV-related stigma and discrimination in the community (Chambers et al., 2015).

While there are many studies of how PLWHA perceived the stigma and its effects on their continuum of care, not much is known about the attitudes towards PLWHA among Myanmar migrants in Chiang Mai province. The study focuses on Myanmar migrants in Chiang Mai Province due to their significant demographic presence and specific challenges in accessing healthcare, including language barriers and legal uncertainties. There is an information gap in the extent and related factors regarding stigma towards PLWHA among the migrant population. The study aimed to assess the status of HIV-related stigma and discrimination towards PLWHA among Myanmar migrants and to identify its associated factors.

MATERIALS AND METHODS

Study site and sample

A cross-sectional study was conducted from October to December 2023 with 424 Myanmar migrants visiting Nakornping Hospital and community gathering places in Chiang Mai Province, Thailand. The sample size was calculated as 423 for a single proportion of a binomial outcome with a 5% precision rate, and a 95% confidence interval, including a 10% allowance for incomplete data (Dhand and Khatkar, 2014). Inclusion criteria included (1) Myanmar migrants aged between 18-45 years (2) who could speak Tai-Yai (Racial language) or Myanmar fluently and (3) their willingness to participate in the study. The Committee of Research Ethics, Faculty of Public Health, Chiang Mai University (ET041/2023) and the Committee of Research Ethics, Nakornping Hospital (NKP No.148/66) approved this study.

Data collection

Myanmar migrants who came to Nakornping Hospital for routine blood screening and those who visited community gathering places such as temples were approached. A computer-based, face-to-face interview method was used by trained research assistants using a convenient sampling procedure. Four research assistants, two males and two females, were recruited from a local non-government organization with direct experience in communicating with migrant workers and conducting outreach activities. Every participant provided written informed consent. Individual data were collected in the tablets using the Kobo Collect application. Interviews were conducted in private settings by gender-matched pairs of research assistants.

Instrument

Stigma and discrimination were measured by using a 6-item scale used in the 6th Thai National Health Examination Survey (Chautrakarn et al., 2023). The questionnaire consisted of questions regarding the anticipated stigma, perceived stigma, fear of HIV infection, social judgement, experienced stigma, and discrimination. Discriminatory attitude towards PLWHA was assessed with a composite indicator recommended by UNAIDS as a Global indicator of discriminatory attitudes towards PLWHA. Participants who answered "Yes" to either experienced stigma or discrimination question were categorized as having a discriminatory attitude towards PLWHA. The questionnaire was translated into Tai-Yai and Myanmar languages by experienced native translators and translated back into English. Participant information, consent form and the questionnaire were offered in both languages. It was pre-tested on 30 gender-balanced Myanmar migrant in Chiang Mai Province.

HIV Knowledge

HIV knowledge was assessed by 7 items, being adopted by PHAMIT-2 (Chamrathirong, 2012). The questionnaire included 5 items on HIV transmission

and 2 on prevention methods., with the possible answers of "Yes", "No", and "Don't Know". Correct answers received a score of 1, while incorrect and "Don't Know" responses received 0. Knowledge scores were classified into two categories: poor and good. Scores below the mean were categorized as poor, while those equal to or above the mean were considered good.

Attitude

Attitudes towards HIV/AIDS, STI infections and condom use were assessed by 14-item question sets, being adopted by PHAMIT-2 (Chamrathirong, 2012). It consisted of 6 items for HIV infection and 4 items each for STI infections and condom use. Those five-point Likert scale items rating from strongly agree to strongly disagree were scored with 5,4,3,2,1 respectively. Given scores were reversed for negative items. Attitude scores were classified into two categories: poor and good. Scores below the mean were categorized as poor, while those equal to or above the mean were considered good.

Statistical analysis

Data analysis was conducted using SPSS statistical software version 26.0. Descriptive statistics such as frequency, percentage, mean, median and standard deviation summarized socio-demographic factors and stigma levels among migrants. Chi-squared tests assessed differences in stigma status, while multiple logistic regression identified the association between socio-demographic factors and stigma towards PLWHA, considering a *P*-value of less than 0.05 statistically significant.

RESULTS

Socio-demographic characteristics

A total of 424 migrants participated in the study, with 50% females, ages ranging from 18 to 45 years, and 40.8% belonging to the 25-34 age group. The majority, 85.8%, were from the Shan ethnic group, 93.6% identified with the Buddhist religion, 56.4% were married and living with their spouse, 96.2% had received their education in Myanmar, and 67.5% had a primary education level or lower.

Approximately 33.5% stayed in Thailand for more than 10 years, and 85.5% had legal ID or documents to stay in the country. The most common occupations were construction worker (45.3%) and general laborer (34.4%), and 47.6% earned less than 10,000 THB per month in average.

Table 1. Socio-demographic Characteristics (n=424).

	Male		Female		Total	
	N=212	%	N=212	%	N=424	%
Perceived Sexual Identity						
Straight Man	211	99.5	0	0.0	211	49.8
Straight Woman	0	0.0	211	99.5	211	49.8
Other	1	0.5	1	0.5	2	0.5
Age Group (years)						
18 - 24	63	29.7	56	26.4	119	28.1
25 - 34	90	42.5	83	39.2	173	40.8
35 - 45	59	27.8	73	34.4	132	31.1
Ethnicity						
Shan (Tai Yai)	182	85.8	182	85.8	364	85.5
Lahu	0	0.0	4	1.9	4	0.9
Pa-O	6	2.8	8	3.8	14	3.3
Kachin	5	2.4	1	0.5	6	1.4

	Male		Female		Total	
	N=212	%	N=212	%	N=424	%
Burmese	8	3.8	5	2.4	13	3.1
Other	11	5.2	12	5.7	23	5.4
Religion						
Buddhism	199	93.9	198	93.4	397	93.6
Christianity	9	4.2	12	5.7	21	5.0
Islam	1	0.5	1	0.5	2	0.5
Other	3	1.4	1	0.5	4	0.9
Marital Status						
Single	64	30.2	45	21.2	109	25.7
Married_spouse present	132	62.3	107	50.5	239	56.4
Married_living apart	7	3.3	10	4.7	17	4.0
Separated/Divorced	2	0.9	10	4.7	12	2.8
Other*	7	3.3	40	18.8	47	11.1
Country of Education						
Myanmar	208	98.1	200	94.3	408	96.2
Thailand	3	1.4	8	3.8	11	2.6
Other	1	0.5	4	1.9	5	1.2
Education Level						
No formal education	95	44.8	69	32.5	164	38.7
Primary School	64	30.2	58	27.4	122	28.8
Middle School	23	10.8	56	26.4	79	18.6
High School	24	11.3	24	11.3	48	11.3
Bachelor's degree and above	6	2.8	5	2.4	11	2.6
Length of Stay in Chiang Mai (years) Median =8.00 yrs (Min =0, Max=34)						
<=1yr	46	21.7	26	12.3	72	17.0
2-5 yrs.	57	26.9	54	25.5	111	26.2
6-10 yrs.	56	26.4	50	23.6	106	25.0
>10 yrs.	53	25	82	38.7	135	31.8
Occupation						
Construction Workers	96	45.3	42	19.8	138	32.5
General Workers/Daily laborers	73	34.4	59	27.8	132	31.1
Domestic Workers	2	0.9	25	11.8	27	6.4
Factory Workers	1	0.5	10	4.7	11	2.6
Plantation Workers	19	9.0	25	11.8	44	10.4
Commerce	1	0.5	5	2.4	6	1.4
Housewives	0	0.0	1	0.5	1	0.2
Others	20	9.4	45	21.2	65	15.3
Average Monthly Income						
less than 10,000 THB	87	41.0	115	54.2	202	47.6
more than 10,000 THB	119	56.1	44	20.8	163	38.4
No response	6	2.8	53	25.0	59	13.9
ID status						
Yes	189	89.2	175	82.5	364	85.8
No	14	6.6	16	7.5	30	7.1
Don't know	6	2.8	0	0.0	6	1.4
No response	3	1.4	21	9.9	24	5.7
Health Insurance Status						
No insurance	43	20.3	31	14.6	74	17.5
Migrant Health Insurance Fund	90	42.5	99	46.7	189	44.6
Social Security Fund	61	28.8	31	14.6	92	21.7
Private Insurance	13	6.1	2	1.0	15	3.5
No response	5	2.4	49	23.1	54	12.7

*(living together, widowed, refuse to say)

Sigma and discrimination towards PLWHA

Many respondents (74.1%) expressed that most people did not want to test HIV as they fear of people's reaction if the result became positive. Eighty-six percentage of participants agreed that PLWHA would lose social standing. Eighty-four percentage feared that they could get HIV if they were in contact with saliva of PLWHA. And eighty-one percentage were disgusted to buy food from a known HIV or AIDS vendor.

Social judgment towards families affected by HIV/AIDS was reported by 60.6% of migrants, who agreed that they would be ashamed if a family member had HIV or AIDS. In addition, 59.7% of migrants believed that children living with HIV/AIDS should not attend the same classroom as other children, showing evidence of discriminatory attitudes.

Overall, 85.1% of the respondents exhibited discriminatory attitudes toward people living with HIV/AIDS as indicated by affirmative responses to either experienced stigma or discriminatory attitude questions.

Table 2. Stigmatizing attitude towards PLWHA (n=424).

Domain	Variables	Yes		No	
		n	%	n	%
Anticipated stigma	1. Most people hesitate to take an HIV or AIDS test due to fear of people's reaction if the test result is positive for HIV	314	74.1	110	25.9
Perceived Stigma	2. People living with or thought to be living with HIV or AIDS lose respect or social standing	366	86.3	58	13.7
Fear of HIV infection	3. Do you fear that you could contract HIV if you come into contact with the saliva of a person living with HIV?	355	83.7	69	16.3
Social judgement	4. Do you agree with this sentence? "I would be ashamed if someone in my family had HIV or AIDS"	257	60.6	167	39.4
Experienced stigma	5. You feel too disgusted to buy fresh food or ready-to-eat food from a shopkeeper or vender whom you know has HIV or AIDS	345	81.3	79	18.6
Discrimination	6. You think that children living with HIV or AIDS should not attend the same classroom with other children	253	59.7	171	40.3
Global indicator for discriminatory attitudes toward PLWHA (answered "Yes" to either question 5 and/or question 6)		361	85.1	63	14.9

Univariable and Multivariable logistic regression

Univariable and multivariable logistic regression between socio-demographic characteristics and discriminatory attitude towards PLWHA showed that Shan ethnicity (aOR=2.419, 95% CI= 1.048-5.580, $P=0.038$) and low education level (aOR=2.559, 95%CI=1.303-5.029, $P=0.006$) were significantly associated with discriminatory attitude towards PLWHA respectively.

Table 3. Univariable and multivariable analysis of factors associated with discriminatory attitude towards PLWHA (n=424).

Factors	Univariate		Multivariate	
	Crude OR (95% CI)	P-value	Adjusted OR (95% CI)	P-value
Gender				
Male	1		1	
Female	0.963(0.564-1.645)	0.891	0.938(0.484-1.817)	0.849
Age (years)				
18-24	1	0.705	1	0.774
25-34	1.318(0.687-2.526)	0.406	1.156(0.518-2.581)	0.724
35-45	1.131(0.575-2.225)	0.721	0.893(0.363-2.194)	0.805
Ethnicity				
Shan (majority)	2.733(1.440-5.118)	0.002*	2.419(1.048-5.580)	0.038*
Others	1		1	
Religion				
Buddhism (majority)	1		1	
Others	0.315(0.135-0.737)	0.008*	0.861(0.272-2.719)	0.798
Marital Status				
Single	1	0.196	1	0.757
Married	1.709(0.944-3.094)	0.077	1.328(0.620-2.841)	0.465
Other	1.612(0.669-3.886)	0.287	1.143(0.385-3.397)	0.810
Education Level				
Low level	2.300(1.336-3.959)	0.003*	2.559(1.303-5.029)	0.006*
High level	1		1	
Occupation				
Construction Workers	1	0.134	1	0.500
General Workers/Day laborers	1.019(0.492-2.111)	0.960	0.935(0.423-2.068)	0.868
Other	0.581(0.305-1.107)	0.099	0.662(0.316-1.388)	0.275
Monthly Income				
<10,000 THB	1	0.753	1	0.246
>=10,000 THB	0.919(0.519-1.627)	0.772	0.744(0.383-1.445)	0.383
Don't answer	1.296(0.538-3.121)	0.564	2.046(0.677-6.185)	0.205
Length of stay in Chiang Mai (years)				
<=5 yrs	1	0.453	1	0.905
6-10 yrs	1.147(0.595-2.213)	0.682	0.934(0.438-1.991)	0.860
> 10 yrs	1.517(0.792-2.904)	0.208	1.127(0.499-2.548)	0.774
HIV Knowledge level				
Poor	1		1	
Good	1.547(0.861-2.781)	0.145	0.702(0.369-1.333)	0.279
Overall Attitude Level				
Poor	1		1	
Good	0.723(0.419-1.247)	0.244	0.560(0.295-1.063)	0.076

*Statistically significant at p-value 0.05

DISCUSSION

Seventy-four percentage of migrants showed a significant level of anticipated stigma towards HIV testing by agreeing that most people did not want to test for HIV because of the possible negative response from the community. The finding was aligned with the study among the general Thai population where 78.4% (Chautrakarn

et al., 2023) showed anticipated stigma. The high level of anticipated stigma would be a barrier to HIV prevention strategies as it will delay migrants from seeking HIV testing and late in diagnosis and treatment.

The perceived stigma among the migrant population was significantly high (86.3%) compared to 66.6% in the general Thai population (Chautrakarn et al., 2023). Migrants assumed that PLWHA would lose respect or social standing in the community. The finding was supported by a study among Myanmar migrants in Surat Thani Province, Thailand where they believed that PLWHA would be shunned and condom use was seen as a symbol of promiscuous (Hounnaklang et al., 2021). Similarly, being stigmatized leads HIV-positive Shan migrants in Chiang Mai to conceal their status and remain single (Jirattikorn et al., 2020). This perceived stigma might hesitate individuals to disclose their HIV status to their partner and undermine HIV preventive practices. Moreover, those will lead to isolation and exclusion of the PLWHA and will affect their social and psychological well-being.

Eighty-four percentage of migrants had a fear of HIV transmission through casual contact such as by contacting with the HIV patient's saliva. This demonstrated a misconception and misunderstanding of HIV transmission methods and the predisposed stigma toward PLWHA. Unnecessary fear of transmission will discourage the open discussion about the disease and could exacerbate social and psychological burdens by PLWHA leading to feelings of isolation and psychological distress.

More than half of the study participants assumed HIV not as a health condition but as a cause of shame in the family probably due to the societal misconception towards disease, transmission methods and moral judgments. This type of social judgement towards PLWHA were seen among people in Hong Kong, and Nigeria (Dahlui et al., 2015; Yeo and Chu, 2017). This high level of social judgement would defer family support and increase the internalized stigma among PLWHA. HIV-positive Shan migrants in Chiang Mai Province expressed the presence of strong stigmatization towards them as promiscuous (Jirattikorn et al., 2020).

Eighty-one percentage of respondents expressed the experienced stigma by agreeing that they felt disgusted to buy food from a vendor who had HIV. This stigma level was found 53.5% of female migrants in Vietnam (Ha et al., 2022), 59.5% of the general population in Indonesia (Suantari, 2021), and 41% of the general population in Thailand (Chautrakarn et al., 2023). A high level of experienced stigma indicated not only misconceptions of HIV transmission methods but also prejudice against PLWHA which will potentially exclude PLWHA from the community and economic activities. This discriminatory attitude would have profound social and economic consequences for PLWHA.

The lowest percentage of the stigma among the 6 domains was discrimination, 59.7% of migrants believed that children who had HIV should not be in the same classroom as other children. This percentage of discrimination in the general Thai population was 20.8% (Chautrakarn et al., 2023) and HIV-positive young adults witnessed the experienced of HIV-related stigma in school (Mathew et al., 2020). A high percentage of migrants with discriminatory views towards children living with HIV reflected a fear-driven exclusion and could have detrimental effects on the lives of young PLWHA. Segregating children according to their health condition would lead to social isolation, stigma and bullying which will impact their psychological well-being and development.

The overall discriminatory attitude toward PLWHA among migrants in Chiang Mai province was high, nearly double than the general Thai population (Chautrakarn et al., 2023). The finding was aligned with other studies conducted around the world, where 76.2% of female migrants in Vietnam had at least one of the four stigmatizing attitudes (Ha et al., 2022), 94.7% had stigma against PLWHA among the Indonesian population (Suantari, 2021) and half of the study population in Nigeria (Dahlui et al., 2015). Negative attitudes would affect the various aspects of HIV patients including disclosure, testing, access to health care, continuum on treatment and their quality of life.

According to the multivariate analysis between the socio-demographic characteristics and discriminatory attitudes towards PLWHA among Myanmar migrant workers in Chiang Mai, it was found that migrants who were of Shan ethnicity and lower education level had higher discriminatory attitudes.

It has been observed that migrants who were of Shan ethnicity showed higher levels of discriminatory attitudes towards PLWHA. Stigma and discrimination might vary significantly across different ethnic groups and contexts (Parker and Aggleton, 2007). Certain ethnic groups might have different cultural and societal norms, values, and beliefs regarding diseases transmitted by sexual contact or blood which could strengthen the stigma and discrimination. The same finding was observed among migrant women in Vietnam where the majority of ethnic group in areas had higher discriminatory attitudes than the rest (Ha et al., 2022). Cultural and social norms among the Shan ethnic population could contribute to the discriminatory attitudes towards PLWHA. Understanding these cultural dimensions is vital in addressing HIV-related stigma in a culturally sensitive manner.

Moreover, migrants with a lower level of education had significantly higher level of negative discriminatory attitudes towards PLWHA. Higher levels of education were associated with better awareness and understanding of HIV/AIDS which could lead to lesser stigma and discrimination (Foreman et al., 2003). Better education might reduce the fear of infection by better understanding transmission methods which could lead to more acceptable views towards PLWHA. The finding of the current study aligns with previous studies conducted among migrants in Vietnam and China (Cao et al., 2010; Xing et al., 2016; Ha et al., 2022) where lower education was significantly associated with higher stigma and discriminatory attitudes. Similar finding had observed among the general population of Thailand, Hong Kong, China, and Nigeria (Dahlui et al., 2015; Li et al., 2017; Suantari, 2021; Chautrakarn et al., 2023). Lower education levels among migrants might limit their access to accurate information about transmission and preventive measures of HIV infection. Those would lead to higher chance of misconception and fear-based responses towards PLWHA.

Although the previous studies carried out among migrants in Vietnam (Ha et al., 2022) and the general population in China (Li et al., 2017) pointed out the association between HIV knowledge and negative attitudes towards PLWHA, there was no significant association between the level of HIV knowledge and discriminatory attitudes among migrants in this study. This could mean factors other than HIV knowledge play a more significant role in shaping the attitudes towards PLWHA.

LIMITATIONS

There are some limitations in the study. The cross-sectional study design would limit to draw the causal inference from the result and convenient sampling method used will limit in terms of generalization not only to the migrant but also in the region. Further studies should aim to explore the association between HIV knowledge and stigma level among the migrant population.

CONCLUSION

Understanding of the association between lower education level, Shan ethnicity and discriminatory attitudes towards PLWHA highlights the need for multi-dimensional interventions. Interventions should not only emphasize upon awareness and education but also prioritize the engagement of cultural sensitivity and community involvement in a sensitive manner. This approach is important for improving the overall effectiveness of HIV prevention and control strategies, particularly among the migrant population.

RECOMMENDATIONS

For the practical interventions to reduce stigma among migrants, tailored educational programs focusing on HIV transmission, prevention, and the reality of living with PLWHA are important. Those programs should start at school and involve workplaces and communities where lower educational migrants could be able to access. Implementing a culturally appropriate stigma-reduction programs in the community with the involvement of community leaders, religious leaders, and youth leaders can foster supportive attitude and environment towards PLWHA. Ensuring accessible and confidential HIV services for the migrants might help in reducing fear and stigma related to HIV disease especially for those who may face additional barriers to accessing health care services.

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AUTHOR CONTRIBUTIONS

Kyaw Soe Thant conceived and designed study, performed data collection, conducted data analysis and interpretation, and wrote the report. All authors have read and approved of the final manuscript.

CONFLICT OF INTEREST

The authors declare no potential conflicts of interest on the research, authorship and/or publication of this article.

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