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HIV- AND DRUG USE–RELATED STIGMA AND SERVICE PROVISION AMONG COMMUNITY HEALTH WORKERS IN VIETNAM

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and Anh Tuan Nguyen

This study compared community health workers' (CHW) stigma towards people living with HIV (PLH) and people who use drugs (PWUD) and explored the relationship between stigma and CHWs' confidence level in providing HIV/drug-related services. Using two sets of identically worded questions, levels of stigma towards PWUD and PLH were measured among 120 CHW from 60 communes in Vietnam. The associations between CHWs' confidence in service provision and stigma towards PWUD and PLH were examined using a linear mixed-effects regression model. The majority of the CHW reported higher levels of stigma towards PWUD than towards PLH. Compared to the CHW reporting higher stigma towards PWUD, those with higher stigma towards PLH were significantly less confident in service provision. Social opprobrium attached to drug-using behaviors can be a major driver behind the overall HIV stigma. CHWs' fear of HIV infection should be tackled to boost their confidence in HIV/drug-related care provision.

Keywords: stigma, people who use drugs, people living with HIV, community health workers, Vietnam

Stigma in health care settings has been identified as a tremendous barrier to service provision for not only people living with HIV (PLH) but also people at risk of HIV (Earnshaw & Chaudoir, 2009; Katz et al., 2013; van Boekel, Brouwers, van Weeghel, & Garretsen, 2013). People who use drugs (PWUD) experience a heightened level of stigma in health care settings (van Boekel et al., 2013). Previous stud-

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ies have reported that stigma towards PLH and PWUD in health care manifests in refusal of service, discouragement of care-seeking, unnecessary use of infection protection measures, breach of confidentiality, and separation of patients (Ding et al., 2005; van Boekel et al., 2013). These stigmatizing attitudes and behaviors of service providers compromise the effort of HIV prevention and treatment because they lead to avoidance in treatment-seeking, poor communication between health care professionals and patients, diminished treatment adherence, mental stress, and relapse of substance use (Lambda Legal, 2010; Lynch, 2013).

To effectively address stigma in health care settings, there is an urgent need to understand the complexity of stigma (Stangl, Lloyd, Brady, Holland, & Baral, 2013; Turan et al., 2019). Previous studies identified two primary sources of stigma among service providers: the misconception of HIV-key populations' behaviors and the fear of HIV infection through occupational exposure (Chambers et al., 2015; Lohiniva et al., 2016). On the one hand, substance use is believed in many cultures as wrongdoing, moral badness, or even criminal behavior (Matthews, Dwyer, & Snoek, 2017; Tran et al., 2016). Service providers regard patients with substance use behavior as immoral, noncompliance, and dishonest (Roberts & Dunn, 2003). On the other hand, providers' fear of occupational exposure to HIV and other infectious diseases could also be a significant driver behind their avoidance of treating PLH or PWUD. A lack of training in HIV/addiction-specific areas and insufficient institutional support for universal precaution supplies in the health care systems were found to aggravate the provider's fear-based stigma (Li et al., 2013). It was suggested that stigma research and intervention effort should take into consideration the intersection of stigma due to HIV status and drug use behavior (Henkel, Brown, & Kalichman, 2008; Reidpath & Chan, 2005; Stangl et al., 2013). However, the interaction between these two sources of stigma and their influences on health service provision is currently understudied.

In Vietnam, injecting drug use is the primary mode of HIV transmission, as almost half of the HIV infection cases are among PWUD (United Nations program on HIV/AIDS [UNAIDS], 2018). Several harm-reduction approaches have been implemented across the country to control the HIV epidemic, including methadone maintenance treatment (MMT) and needle exchange programs (Hien, Long, & Huan, 2004; Maher, Coupland, & Musson, 2007). Also, antiretroviral therapy is offered to all PLH regardless of their CD4 or disease status (PEPFAR, 2018). Despite the encouraging progress, PWUD and PLH still face tremendous barriers to accessing necessary health care services (Go et al., 2019). Stigma in health care settings remains a major barrier to HIV and drug-related service provision (Tran et al., 2016). In particular, community health workers (CHW), who are on the front line of HIV and drug control in Vietnam, have significant prejudicial beliefs and attitudes towards PLH and PWUD (Lin, Nguyen, & Li, 2018). The purpose of this study was to decompose the stigma due to HIV infection and drug use status among CHW in Vietnam. We also examined the relationships between CHW's stigma and their levels of confidence in providing HIV and addiction-related services. Study findings could guide the future development of programs and policies to reduce stigma in health care settings and to promote the quality of health services for PLH, PWUD, and other HIV key populations.

METHODS

STUDY PARTICIPANTS

This study used the baseline data of an ongoing randomized controlled trial conducted in Vietnam. From March to August 2018, 60 communes with the largest numbers of PLH/PWUD were selected in four provinces (Bac Giang, Hai Duong, Nam Dinh, and Nghe An) in Vietnam. CHW participants' inclusion criteria were: (1) at least 18 years old, and (2) being a CHW (could be a doctor, assistant doctor, nurse, midwife, or pharmacist) who regularly provide health services to community residents in one of the selected communes. Usually, there are two members of CHW who are responsible for HIV/drug use-related health education and counseling in each commune health center (CHC), and both are invited to participate in the study. Using a standard script, the study purposes, procedures, and all ethical issues were introduced when recruiting the participants. It was also emphasized that participation was entirely voluntary and would not affect employment status. Written informed consent was obtained before data collection. A total of 120 CHW were recruited from the 60 CHC and included in the study.

DATA COLLECTION

Shortly after the recruitment, the CHW participants completed a questionnaire in a private office of the CHC. The assessment was administered using the computer-assisted self-interview (CASI) method, which allowed the participants to input their answers to the pre-programmed computer database directly. The project staff was on standby to provide clarifications for questions and instructions for using CASI. Each assessment lasted about 45–60 minutes, and each participant received 80,000 Vietnamese Dong (approximately U.S. \$4.00) for his/her time and effort.

MEASURES

Two sets of identically-worded questions, with six items each, were used to measure stigma towards PWUD and stigma towards PLH. The Stigma towards PWUD scale measures service providers' feelings of blame, anger, disappointment, sympathy, and lack of concern towards PWUD (National Centre for Education and Training on Addiction Flinders University, 2006). The scale has been used and validated in one of our previous studies in Vietnam (Li et al., 2018). The six questions were: (1) To what extent is an individual personally responsible for his/her problematic drug use?, (2) To what extent do you feel angry towards PWUD?, (3) To what extent do you feel disappointed towards PWUD?, (4) To what extent do you feel sympathetic towards PWUD?, (5) To what extent do you feel concerned about PWUD, and (6) To what extent do PWUD deserve the same level of medical care as people who do not use drugs? Each item was scored on a scale ranging from 1 (not at all) to 5 (very much). The overall score was constructed by summing all the items (ranging from 6 to 30). A higher score suggested a higher level of stigma towards PWUD (Cronbach's $\alpha = 0.64$). Stigma towards PLH was measured with the same six questions with the terms "HIV" and/or "PLH" being used to replace "drug use" and/or "PWUD." For example, the first two questions read as (1) To what extent is an individual personally responsible for his/her HIV infection? and (2) To what extent do you feel angry towards PLH? Similarly, a higher score indicated a higher level of stigma against PLH (Cronbach's $\alpha = 0.67$).

Confidence in HIV/drug-related service provision was measured by a six-item scale developed specifically for this study based on a qualitative work exploring health providers' perception and experiences of treating PWUD (McLaughlin, McKenna, Leslie, Moore, & Robinson, 2006). The scale has been used previously among CHW in Vietnam (Lin, Nguyen, & Li, 2018). The participants were asked to rate their level of confidence on the following areas: (1) getting in touch with PLH and/or PWUD in the community, (2) providing consultation for PLH and/or PWUD, (3) engaging PLH and/or PWUD to different treatment program, (4) helping PLH and/or PWUD adhere to the treatment, (5) motivating PLH and/or PWUD to make positive behavior change, and (6) providing long-term follow-up and care for PLH and/or PWUD. Answers to each of the areas ranged from 1 (not confident at all) to 5 (very confident). The total score was generated by summing up all the responses (ranging from 6 to 30). A higher score indicated a higher level of confidence in service provision to PLH and/or PWUD (Cronbach's alpha = 0.90).

CHW's demographics and career-related background characteristics, including gender, age (years), medical training, medical occupation, and length of working in the current CHC (years) were collected as well. The medical profession in this study included doctors, assistant doctors, nurses, midwives, and pharmacists.

DATA ANALYSIS

The characteristics of CHW, their stigma towards PWUD/PLH, and their confidence in service provision were summarized using descriptive statistics and frequencies. We descriptively assessed the differences in the summary score and specific items of the two stigma scales. A scatter plot of the levels of stigma towards PWUD against stigma towards PLH reported by CHW was generated, and Pearson's correlation between the paired stigma levels was calculated. To further understand the variation in levels of stigma towards PWUD and PLH within CHW, we categorized them into three groups: CHW who reported higher levels of stigma towards PLH than PWUD (Group 1), CHW who reported equal levels of stigma towards PWUD and PLH (Group 2), and CHW reported higher levels of stigma towards PWUD than PLH (Group 3). Frequencies of these subgroups were summarized using a bar chart.

To examine the association between the perceived confidence in service provision and stigma towards either PWUD or PLH, we used two separate commune-level random-effect models. Both of these unadjusted models accounted for correlations between participants within communes. The estimated associations (slopes) and corresponding 95% confidence bands were summarized graphically. To further understand whether the confidence in service provision reported by CHW was associated with their overall level of stigma and the variation in levels of stigma towards PWUD and PLH, a linear mixed-effects regression model with commune-level random effects was used. The factors of interest included overall level of stigma (i.e., the average of the paired stigma scores towards PWUD and PLH within a participated CHW; continuous), variation in levels of stigma towards PWUD and PLH (i.e., three groups defined earlier; categorical), and other covariates (i.e., demographic and career-related background characteristics). All analyses were performed with SAS software windows version 9.4 (SAS Institute, Cary, NC), and all figures were created using R software windows version 3.5.1 (R Core Team, 2019).

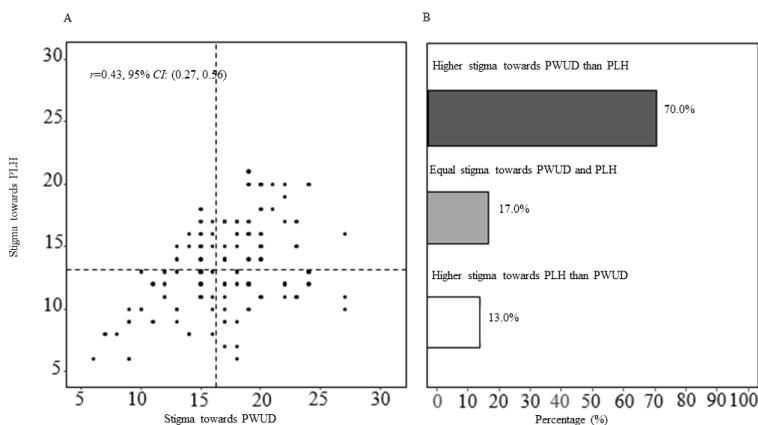


FIGURE 1. Relationship between stigma towards PWUD and stigma towards PLH in Vietnam, 2018. (A) A scatter plot of the levels of stigma towards PWUD against stigma towards PLH reported by CHW, and (B) a bar chart of stigma subgroup based on their paired stigma levels towards PWUD vs. PLH. In (A), the vertical and horizontal dash lines represent the mean of stigma towards PWUD (mean = 16.8, SD = 4.3), and the mean stigma towards PLH (mean = 13.1, SD = 3.5), respectively. Pearson’s correlation (r) and its 95% confidence interval (CI) are also shown.

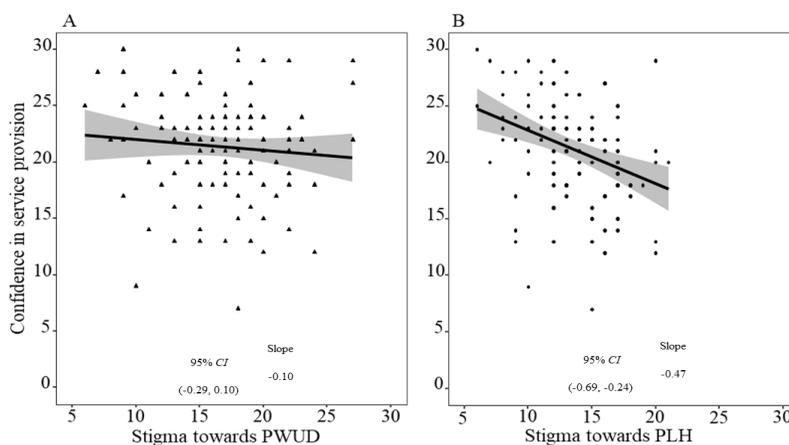


FIGURE 2. Associations between CHW’s confidence in service and their stigma levels towards PWUD (A) and PLH (B), respectively. The regression lines (slopes) and their confidence bands were from two separate commune-level random-effect models.

TABLE 1. Sample Characteristics of Community Health Workers, $N = 120$

	n (%) or Mean (SD)
Gender	
Male	33 (27.5)
Female	87 (72.5)
Age (years)	
34 or younger	31 (25.8)
35–44	30 (25.0)
45 or older	59 (49.2)
Mean (SD)	42.3 (9.0)
Medical training	
Less than 4 years	90 (75.0)
At least 4 years	30 (25.0)
Medical occupation	
Doctor	22 (18.3)
Assistant doctor	48 (40.0)
Nurse/midwife/pharmacist	50 (41.7)
Length of working in the current CHC	
Less than 10 years	37 (30.8)
10–20 years	32 (26.7)
More than 20 years	51 (42.5)
Mean (SD)	16.6 (9.1)
Measures, Mean (SD)	
Stigma towards PWUD	16.8 (4.3)
Stigma towards PLH	13.1 (3.5)
Confidence in service provision	21.3 (4.6)

Note. CHC = commune health center; PWUD = people who use drugs; PLH = people living with HIV.

RESULTS

Of the 120 CHW in the study, the majority were female (72.5%), and around 50% were aged 44 years or younger. Three-quarters of the participated CHW received less than four years of medical training. About 18% were doctors, 40% were assistant doctors, and the others (41.7%) were nurses, midwives, or pharmacists. More than 42% of the CHW reported working in the current CHC for more than 20 years. The sample characteristics are presented in Table 1.

The CHW participants reported higher levels of stigma towards PWUD than towards PLH in each of the six items. The itemized difference was the lowest for the item that an individual is personally responsible for his/her problematic drug use versus HIV positive status (Mean difference = 0.25, $SE = 0.08$; paired t test $p = .0038$). Except for this item, all other items had paired t test $P < .0001$. The highest itemized difference was found in the item that the CHW felt angry towards PWUD than towards PLH (Mean difference = 0.89, $SE = 0.11$; paired t test $p < .0001$). The summary score of stigma towards PWUD was higher than that towards PLH (Mean difference = 3.7, $SE = 0.39$; paired t test $p < .0001$). The two types of stigma scores were positively correlated (Figure 1, panel A); Pearson's correlation = 0.43, 95%

TABLE 2. Adjusted Regression of Confidence in Service Provision

	Estimate (SE)	<i>p</i>
Male	3.39 (0.85)	< .001
Age (years)		
34 or younger	0.28 (1.44)	.846
35–44	0.07 (1.01)	.945
45 or older	REF	
Medical training		
Fewer than 4 years	3.72 (1.44)	.013
4 years or more	REF	
Medical occupation		
Doctor	3.93 (1.43)	.008
Assistant doctor	-1.35 (0.81)	.101
Nurse/midwife/pharmacist	REF	
Length of working in the current CHC		
Fewer than 10 years	-3.18 (1.45)	.034
10–20 years	-0.72 (0.98)	.471
More than 20 years	REF	
Perceived stigma		
Overall level of stigma	-0.41 (0.11)	.001
Subgroup		
Higher stigma towards PLH than PWUD	-3.74 (1.10)	.001
Equal stigma towards PLH and PWUD	-0.47 (0.99)	.636
Higher stigma towards PWUD than PLH	REF	

Note. PWUD = people who use drugs; PLH = people living with HIV; SE = standard error.

confidence interval (95% CI) [0.27, 0.56]. Figure 1, panel B shows that the majority of CHW reported either higher ($n = 84$, 70.0%) or equal ($n = 20$, 17.0%) levels of stigma towards PWUD versus those towards PLH, and only 13% ($n = 16$) of the CHW reported higher levels of stigma towards PLH compared to PWUD.

The scatter plots and the estimated associations between the perceived confidence in service provision and stigma towards either PWUD or PLH are shown in Figure 2, panels A and B, respectively. The perceived confidence in service provision was found to be negatively associated with stigma towards PLH (Estimate = -0.47, 95% CI [-0.69, -0.24]), but was not significantly associated with stigma towards PWUD (Estimate = -0.10, 95% CI [-0.29, 0.10]).

Results from the adjusted regression (Table 2) showed that the perceived confidence in service provision was negatively associated with the overall level of stigma (Estimate = -0.41, SE = 0.11, $p < .001$). Compared to the participated CHW with higher stigma towards PWUD than PLH (Group 3), the participated CHW with higher stigma towards PLH than PWUD (Group 1) reported a significantly lower level of confidence in service provision (Estimate = -3.74, SE = 1.10, $p = .001$). A significant higher level of confidence in service provision was associated with the following characteristics: being male (Estimate = 3.39, SE = 0.85, $p < .001$), having fewer than four years of medical training (Estimate = 3.72, SE = 1.44, $p = .013$), being a doctor versus a nurse/midwife/pharmacist (Estimate = 3.93, SE = 1.43, p

= .008), or having worked in the current CHC over 20 years versus fewer than 10 years (Estimate = 3.18, *SE* = 1.45, *p* = .034).

DISCUSSION

Our study results indicated that the stigma towards PLH and PWUD were highly correlated. Such overlapped stigma could be explained by the often co-occurrence of these two conditions. We commonly believed that the general label of stigma towards PLH is an accumulation of stigma associated with a transmittable disease and the stigma towards other co-characteristics, such as drug use (Herek, 1999; Parker & Aggleton, 2003). Surprisingly, the study finding revealed a significantly higher level of stigma towards PWUD than that towards PLH among CHW. This result is, however, consistent with an earlier study conducted among nursing students in Thailand, who also showed that AIDS as a less stigmatizing character than injecting drug use (Chan, Stoové, Sringeriyuang, & Reidpath, 2008). The higher level of stigma towards PWUD reflects the strong social opprobrium attached to drug-using behaviors within the Vietnamese culture, where PWUD have long been labeled as social evils and associated with criminal activities and mental health problems (Thi et al., 2008). Drug use was described as a dangerous social disease in the country's Constitution and drugs laws (Government of Vietnam, 1992, 2000). Vietnam once had one of the world's most punitive addiction treatment approaches, and PWUD were subject to up to two years of imprisonment in compulsory rehabilitation centers (known as 06 centers; Windle, 2015). The negative image of PWUD were also reinforced by government-disseminated health campaigns, health education posters, and social media (Thanh, Moland, & Fylkesnes, 2012). CHW, as members of the community, could hold deep policy- and socially-influenced moral judgments towards PWUD. Such moral judgment has become not only a contributor but also a dominant player behind the overall stigma towards PLH. Our study findings imply that focusing on the deeply rooted prejudicial beliefs towards substance-using behaviors is an essential component to address stigma towards marginalized populations in health care settings.

The relatively lower level of stigma towards PLH suggested that CHW in this study could, to a certain degree, separate the symbolic meaning of HIV infection from marginalized behaviors (Herek, 1999). After decades of HIV education, CHW could also view PLH as a palpable patient who deserves health care, and this empathic perspective could decrease the stigma beard by PLH (Chan et al., 2008). Although this finding is welcoming, it should be acknowledged that there was still a substantial proportion of CHW who held an equal or higher level of stigma towards PLH than PWUD. When designing a stigma-reduction program, one should consider the heterogeneity in service providers and use differentiated intervention approaches to address the diverse concerns and beliefs held by different provider subgroups.

Consistent with numerous previous studies, we found CHW's overall stigma towards PLH and PWUD as a substantial barrier to health care delivery to PLH and other at-risk groups (Earnshaw & Chaudoir, 2009; Katz et al., 2013; van Boekel et al., 2013). When taking a step further to distinguish the roles of HIV- and drug use-related stigma in CHW's service provision, we found that stigma towards PLH, although relatively weaker than stigma towards PWUD, has a stronger association with CHW's confidence level to provide HIV and drug-related services. Those CHW

who held a higher level of stigma towards PLH were more likely to be uncomfortable working with PLH and PWUD. In a sense, stigma towards PLH could be interpreted as instrumental fear of HIV infection of CHW (Herek, 1999). Service providers could avoid contact with PLH/PWUD as their way to reduce potential occupational exposure, and hence, the quality of health services is compromised (Davtyan, Olshansky, Brown, & Lakon, 2017). Such fear-based stigma could be addressed by targeted intervention approaches, such as providing sufficient institutional support in service providers' job safety and reinforcing compliance universal precaution protocols (Li, Liang, Lin, & Wu, 2015). Future stigma reduction interventions in health care settings should include these evidence-based approaches as an integral part of tackling providers' fear-based stigma towards PLH.

There are limitations of this study. First, stigmatizing attitude and confidence in service provision were assessed using self-report measures, which may be subject to social disability bias. The actual frequency and quality of service delivery could not be examined in this study. Second, the relatively low Cronbach's Alpha of the stigma measures may suggest moderate internal consistency of the items. Third, due to the nature of the cross-sectional design, the study could only reveal association but not causation. Last, this study was conducted among CHW who worked in PLH and PWUD populated communes. The study findings may not be generalizable to other types of health service providers or areas with different HIV/drug use epidemic.

CONCLUSIONS

The current study contributed to the knowledge of layered HIV- and drug use-related stigma among health care providers. The results pointed to the need to take into account of the intersectional sources of stigma among providers and their distinctive correlation with actual service provision. Differentiated stigma-reduction intervention approaches should be correspondingly employed to address the full spectrum of stigma and improve health care delivered to marginalized populations.

REFERENCES

- Chambers, L. A., Rueda, S., Baker, D. N., Wilson, M. G., Deutsch, R., Raefifar, E., & Rourke, S. B. (2015). Stigma, HIV and health: A qualitative synthesis. *BMC Public Health, 15*, 848.
- Chan, K. Y., Stooové, M. A., Sringernyung, L., & Reidpath, D. D. (2008). Stigmatization of AIDS patients: Disentangling Thai nursing students' attitudes towards HIV/AIDS, drug use, and commercial sex. *AIDS and Behavior, 12*, 146–157.
- Davtyan, M., Olshansky, E. F., Brown, B., & Lakon, C. (2017). A grounded theory study of HIV-related stigma in US-based health care settings. *Journal of the Association of Nurses in AIDS Care, 28*, 907–922.
- Ding, L., Landon, B. E., Wilson, I. B., Wong, M. D., Shapiro, M. F., & Cleary, P. D. (2005). Predictors and consequences of negative physician attitudes toward HIV-infected injection drug users. *Archives of Internal Medicine, 165*, 618–623.
- Earnshaw, V. A., & Chaudoir, S. R. (2009). From conceptualizing to measuring HIV stigma: A review of HIV stigma mechanism measures. *AIDS and Behavior, 13*, 1160–1177.
- Go, V. F., Hershow, R. B., Kiriazova, T., Sarasvita, R., Bui, Q., Latkin, C. A., . . . Hoffman, I. F. (2019). Client and provider perspectives on antiretroviral treatment uptake and adherence among people who inject drugs in Indonesia, Ukraine and Vietnam: HPTN 074. *AIDS and Behavior, 23*, 1084–1093.
- Government of Vietnam. (1992). Constitution of the Socialist Republic of Viet Nam, no. 61. Retrieved from <http://www.na.gov.vn/htx/English/C1479/#BSi1T823Fk4U>

- Government of Vietnam. (2000). The Law on Preventing and Combating Narcotic Drugs. Retrieved from <http://www.unodc.org/enl/showDocument.do?documentUId=2304&country=VIE>
- Henkel, K. E., Brown, K., & Kalichman, S. C. (2008). AIDS-related stigma in individuals with other stigmatized identities in the USA: A review of layered stigmas. *Social and Personality Psychology Compass*, 2, 1586–1599.
- Herek, G. M. (1999). AIDS and stigma. *American Behavioral Scientist*, 42, 1106–1116.
- Hien, N. T., Long, N. T., & Huan, T. Q. (2004). HIV/AIDS epidemics in Vietnam: Evolution and responses. *AIDS Education and Prevention*, 16(Suppl A), 137–154.
- Katz, I. T., Ryu, A. E., Onuegbu, A. G., Psaros, C., Weiser, S. D., Bangsberg, D. R., & Tsai, A. C. (2013). Impact of HIV-related stigma on treatment adherence: Systematic review and meta-synthesis. *Journal of the International AIDS Society*, 16(Suppl 2), 18640.
- Lambda Legal. (2010). HIV stigma and discrimination in the U. S.: An evidence-based report. Lambda Legal. https://www.lambdalegal.org/sites/default/files/publications/downloads/fs_hiv-stigma-and-discrimination-in-the-us_1.pdf
- Li, L., Hien, N. T., Liang, L. J., Lin, C., Lan, C. W., Lee, S. J., . . . Ha, N.T.T. (2018). Efficacy of communication training of community health workers on service delivery to people who inject drugs in Vietnam: A clustered randomized trial. *American Journal of Public Health*, 108, 791–798.
- Li, L., Liang, L. J., Lin, C., & Wu, Z. (2015). Addressing HIV stigma in protected medical settings. *AIDS Care*, 27, 1439–1442.
- Li, L., Wu, Z., Liang, L. J., Lin, C., Guan, J., Jia, M., . . . Yan, Z. (2013). Reducing HIV-related stigma in health care settings: A randomized controlled trial in China. *American Journal of Public Health*, 103, 286–292.
- Lin, C., Nguyen, A. T., & Li, L. (2018). Commune health workers' methadone maintenance treatment (MMT) knowledge and perceived difficulties providing decentralized MMT services in Vietnam. *Substance Use & Misuse*, 53, 194–199.
- Lohiniva, A. L., Kamal, W., Benkirane, M., Numair, T., Abdelrahman, M., Saleh, H., . . . Kandeel, A. (2016). HIV stigma toward people living with HIV and health providers associated with their care: Qualitative interviews with community members in Egypt. *Journal of the Association of Nurses in AIDS Care*, 27, 188–198.
- Lynch, H. F. (2013). Discrimination at the doctor's office. *New England Journal of Medicine*, 368, 1668–1670.
- Maher, L., Coupland, H., & Musson, R. (2007). Scaling up HIV treatment, care and support for injecting drug users in Vietnam. *International Journal of Drug Policy*, 18, 296–305.
- Matthews, S., Dwyer, R., & Snook, A. (2017). Stigma and self-stigma in addiction. *Journal of Bioethical Inquiry*, 14, 275–286.
- McLaughlin, D., McKenna, H., Leslie, J., Moore, K., & Robinson, J. (2006). Illicit drug users in Northern Ireland: Perceptions and experiences of health and social care professionals. *Journal of Psychiatric and Mental Health Nursing*, 13, 682–686.
- National Centre for Education and Training on Addiction, Flinders University. (2006). Health professionals' attitudes towards licit and illicit drug users: A training resource. Retrieved from <http://nceta.flinders.edu.au/files/7712/5548/2203/EN150.pdf>
- Parker, R., & Aggleton, P. (2003). HIV and AIDS-related stigma and discrimination: A conceptual framework and implications for action. *Social Science & Medicine*, 57, 13–24.
- PEPFAR. (2018). Country Operational Plan Vietnam COP 2018. Retrieved from https://www.aidsdatahub.org/sites/default/files/publication/Vietnam_2018_Country_Operational_Plan_Strategic_Direction_Summary.pdf
- R Core Team. (2019). R: A language and environment for statistical computing. Vienna, Austria: R Foundation for Statistical Computing. Retrieved from: <https://www.R-project.org/>
- Reidpath, D. D., & Chan, K. Y. (2005). A method for the quantitative analysis of the layering of HIV-related stigma. *AIDS Care*, 17, 425–432.
- Roberts, L. W., & Dunn, L. B. (2003). Ethical considerations in caring for women with substance use disorders. *Obstetrics and Gynecology Clinics of North America*, 30, 559–582.
- Stangl, A. L., Lloyd, J. K., Brady, L. M., Holland, C. E., & Baral, S. (2013). A systematic review of interventions to reduce HIV-related stigma and discrimination from 2002 to 2013: How far have we come? *Journal of the International AIDS Society*, 16(3 Suppl 2), 18734.
- Thanh, D. C., Moland, K. M., & Fylkesnes, K. (2012). Persisting stigma reduces the utilization of HIV-related care and support services in Viet Nam. *BMC Health Services Research*, 12, 428. <https://doi.org/10.1186/1472-6963-12-428>.
- Thi, M.D.A., Brickley, D. B., Vinh, D.T.N., Colby, D. J., Sohn, A. H., Trung, N. Q., & Mandel, J. S. (2008). A qualitative study of stigma and discrimination against people living with HIV in Ho Chi Minh City, Vietnam. *AIDS and Behavior*, 12, 63–70.

- Tran, B. X., Vu, P. B., Nguyen, L. H., Latkin, S. K., Nguyen, C. T., Phan, H.T.T., & Latkin, C. A. (2016). Drug addiction stigma in relation to methadone maintenance treatment by different service delivery models in Vietnam. *BMC Public Health, 16*, 238.
- Turan, J. M., Elafros, M. A., Logie, C. H., Banik, S., Turan, B., Crockett, K. B., . . . Murray, S. M. (2019). Challenges and opportunities in examining and addressing intersectional stigma and health. *BMC Medicine, 17*, 7.
- United Nations Program on HIV/AIDS. (2018). Viet Nam. Retrieved September 26, 2019, from: <https://www.unaids.org/en/region-scountries/countries/vietnam>
- van Boekel, L. C., Brouwers, E. P., Van Weeghel, J., & Garretsen, H. F. (2013). Stigma among health professionals towards patients with substance use disorders and its consequences for healthcare delivery: Systematic review. *Drug and Alcohol Dependence, 131*, 23–35.
- Windle, J. (2015). A slow march from social evil to harm reduction: Drugs and drug policy in Vietnam. *Journal of Drug Policy Analysis, 10*, 1–16.