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## **Social-cultural factors of HIV-related stigma among the Chinese general population in Hong Kong**

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### **Abstract**

HIV-related stigma in the wider community compounds the suffering of people living with HIV (PLWH) and hampers effective HIV prevention and care. This study examines the level of public stigma toward PLWH in Hong Kong and associated social-cultural factors. A telephone survey was conducted in June-July 2016 with 1080 Chinese adults aged 18-94 randomly selected from the general population. The results indicate substantial degree of public stigma toward PLWH. Overall, 58.1% of the participants endorsed at least one statement indicating negative social judgment of PLWH. Over 40% attributed HIV infections to irresponsible behaviors and nearly 30% perceived most PLWH as promiscuous. About 20% considered HIV to be a punishment for bad behavior and believed that PLWH should feel ashamed of themselves. These statistics indicate that HIV-related stigma among the general Hong Kong population had no noticeable reduction in a decade but is lower than that among rural and urban populations in China. Our findings suggest that the lower stigma in Hong Kong may be linked to higher education levels rather than Hongkongers' more Westernized outlook. The results of a multiple regression analysis showed that education level ( $\beta=-.19$ ), homophobia ( $\beta=.30$ ), and conformity to norms ( $\beta=.14$ ) were independent predictors of HIV-related stigma but not age, income, or cultural orientations. By differentiating between associated social-cultural factors, this study provides a more nuanced understanding of the layered nature of HIV-related stigma: not broadly grounded in religion or Chinese culture but stemming from more specific social-cultural beliefs—perceptions of norm violation and negative attitudes toward homosexuality, which were not mutually exclusive. These findings have implications for HIV-related stigma reduction by providing evidence for the importance of addressing homophobia. Existing HIV publicity activities

should be re-examined for inadvertent contribution to the stigmatization process— particularly press conferences and prevention campaigns that reinforce negative stereotypes of gay/bisexual men and PLWH.

*Keywords:* stigma; people living with HIV; social norms; homosexuality; Hong Kong

## **Social-Cultural Factors of HIV-related Stigma among the Chinese General Population in Hong Kong**

Public stigma, or negative social responses among the general population, undermines the well-being of people living with HIV (PLWH) through perceived or actual avoidance and discrimination when seeking employment, social support, and other needs (L. Li et al., 2007; Z. Li, Hsieh, Morano, & Sheng, 2016; Liu, Canada, Shi, & Corrigan, 2012; Yu, Li, Qiao, & Zhou, 2016). Societal stigma also fosters self-stigma which impedes individuals' willingness to test for HIV, discuss risky behaviors, reveal their HIV status, and respond appropriately to HIV/STI symptoms (H. Li, Chen, & Yu, 2016; Young & Bendavid, 2010). Understanding the factors underlying public stigma is warranted for more effective HIV prevention and care.

This study seeks to identify and evaluate the social-cultural factors associated with public stigma toward PLWH in Hong Kong. As a former British colony and China's international gateway, Hong Kong presents an interesting context to examine how public stigma is manifested in a fusion of Chinese and Western cultures. Furthermore, Hong Kong is a low HIV epidemic area with HIV prevalence among men who have sex with men, the major at-risk sub-population, consistently less than 5% (Department of Health, 2012). Low HIV prevalence could lead to intensified stigma against PLWH owing to less tolerance and greater fear of HIV infection than high-prevalence contexts (Zukoski & Thorburn, 2009).

Stigma is shaped by societal forces and structural inequalities which entail cultural meanings, affective states, social roles, and ideal types (Parker & Aggleton, 2003; Yang et al., 2007). HIV-related stigma in Chinese culture is often interwoven with "face" or moral standing in society (Yang & Kleinman, 2008). In Hong Kong, moralistic attributions were shown to outweigh factual understandings in explaining public stigma toward PLWH (Mak et al., 2006). Several studies have speculated that moralistic attributions of PLWH in Chinese society stem from traditional values and norms (Cao et al., 2010; Lau, Choi, Tsui, & Su, 2007;

Lau & Tsui, 2007). Qualitative studies with specific Chinese populations have highlighted how prevailing culture intervene in the way people perceive HIV infection (Yeo & Fung, 2016; Zhou, 2006). However, the prevalence and strength of socio-cultural factors underlying HIV-related stigma among the Chinese general population have not been quantitatively assessed. To address the research gap, this study tests the relationships between HIV-related stigma and three social-cultural factors: homophobia, conformity to norms, and cultural orientations.

## Method

### Procedure and Participants

A telephone survey was conducted between June 2016 and July 2016 with 1,008 participants (eligibility criteria: Cantonese-speaking Chinese Hong Kong residents aged 18 or above) contacted via telephone numbers randomly generated using known prefixes provided by the Communications Authority. For households with more than one eligible participant, the one with the closest birthday till date was selected. The response rate was 70.6%. All procedures were approved by the authors' institutional review board.

### Measures

*HIV-related stigma* was measured with four items (see Table 2) adapted from the “stigmatizing attitudes toward PLWH” scale (Stringer et al., 2015) ( $\alpha = .78$ ). *Homophobia* was measured using Herek's (1994) 3-item (“I think homosexuals are disgusting”, “Sex between people of the same gender is just plain wrong”, and “Homosexuality is merely a different kind of lifestyle that should not be condemned”) version of the Attitude Toward Lesbian and Gay Men Scale ( $\alpha = .60$ ) given the short attention span of telephone interviewees. *Conformity to norms* was measured with two items (“One should not deviate from familial and social norms” and “Following familial and social expectations is important”) adapted from the Asian Values Scale (Kim, Atkinson, & Yang, 1999) ( $\alpha = .60$ ). *Chinese and Western*

*orientations* were measured with six items, three per orientation, adapted from a scale designed to assess cultural orientations of Chinese people (Shell, Newman, & Xiaoyi, 2010) (Chinese orientation,  $\alpha = .73$ , e.g., “I attach great importance to traditional Chinese values”; Western orientation,  $\alpha = .69$ , e.g., “I appreciate the context of western culture that emphasizes on freedom and taking ease in life”). The above items were rated on a five-point Likert Scale, ranging from 1 (strongly disagree) to 5 (strongly agree), and averaged to provide a representative score for each variable. All instruments were tested with Chinese samples in previous studies and had reliability measures similar to those studies. Socio-demographic details were collected at the end of each telephone interview.

### **Data Analysis**

All analyses were conducted using SPSS v22. Descriptive characteristics of the sample regarding demographics, HIV-related stigma, and other social-cultural attitudes were first examined. Separate univariate linear regression analyses were then conducted to assess relationships between independent variables (all demographic and social-cultural variables) and HIV-related stigma. Significant variables ( $p < .05$ ) in the univariate analyses served as predictors of a multiple linear regression model to assess their independent association with HIV-related stigma.

## **Results**

### **Participants' Characteristics**

The age (range: 18-94 years,  $M = 46.71$ ,  $SD = 18.17$ ) and gender (45.1% male, 54.9% female) composition of the sample is comparable with that of the census population (Table 1). Most participants reported no religious affiliation (64.2%), HK\$10,000-HK\$50,000 monthly income (63.4%), and heterosexual orientation (96%).

### **Level of HIV-related Stigma**

Overall, 58.1% of the participants endorsed at least one of the four statements indicating

negative social judgment of PLWH (Table 2). Over 40% of the participants attributed HIV infections to irresponsible behaviors and nearly 30% considered most PLWH to be promiscuous. Around 20% of the participants considered HIV to be a punishment for bad behavior and believed that PLWH should feel ashamed of themselves. Nevertheless, only 13% of the participants had an average HIV-related stigma score of four or above (i.e., agree or strongly agree) whereas about 34% had an average score of two or below (i.e., disagree or strongly disagree).

### **Factors Associated with HIV-related Stigma**

The multiple regression analysis demonstrated that only education level, homophobia, and conformity to norms were independent predictors of HIV-stigma (Table 3). Despite univariately significant with HIV-related stigma, age, monthly household income, religious affiliation, and Chinese orientation were not significant predictors in the multiple regression model.

### **Discussion**

Despite efforts to promote support for PLWH in Hong Kong, this study shows that HIV-related stigma remained prevalent among the general population. A majority of the participants expressed at least one negative social judgment of PLWH. There were no noticeable changes in public stigma toward PLWH in Hong Kong compared to a decade ago. About 30% to 40% of the participants associated PLWH with promiscuity and irresponsible behaviors while over 20% ascribed shame and retribution to PLWH. These figures are similar to those of local studies conducted in 2000 and 2002 (Lau & Tsui, 2005, 2007). Nevertheless, the level of HIV-related stigma observed in this study is lower than that in rural and urban populations of China (Cao et al., 2010; Sullivan et al., 2010). Our findings suggest that the lower stigma in Hong Kong may be linked to higher education levels rather than Hongkongers' more Westernized outlook.

The relationships between HIV-related stigma and socio-demographic characteristics were consistent with previous studies (Adrien, Beaulieu, Leane, Perron, & Dassa, 2013; Cao et al., 2010; Lau & Tsui, 2005). Age, income, and education had significant univariate associations with HIV-related stigma but only education was independently associated. A plausible explanation is that age, income, and education tend to be highly correlated in Hong Kong. Education stood out possibly because those who are less educated might be less knowledgeable about HIV, more fearful of contagion, and hold more stereotypical views of PLWH.

This study extends prior research by clarifying the nature of HIV-related stigma in Hong Kong. Religious affiliation and Chinese orientation were univariately significant with HIV-related stigma but not independently associated possibly owing to the inclusion of homophobia and conformity to norms in the multiple regression model. This finding suggests that HIV-related stigma is not broadly grounded in religion or Chinese culture but stems from more specific social-cultural beliefs. Notably, the relationship between HIV-related stigma and negative attitude toward homosexuality cannot be fully explained by conformity to norms. This observation reinforces the layered nature of stigma and importance of addressing homophobia when combating HIV-related stigma.

This study has a few limitations that warrant caution when interpreting the results. The self-reported data may be subjected to social desirability bias which could result in an underestimation of homophobia and HIV-related stigma, and an overestimation of conformity to norms. Furthermore, the cross-sectional nature of the study would not permit causal inferences or precise assessments of temporal changes in stigmatizing attitudes.

Despite these limitations, the findings highlight the need to address the impact of perceptions of norm violation and homophobia in the stigmatization process at the societal level. A necessary first step is to critically reexamine existing practices. For instance, HIV



prevention campaigns that target clients of female sex workers often convey a moralistic association between HIV transmission and promiscuity. Similarly, media coverage of HIV surveillance in Hong Kong tends to blame gay/bisexual men for the rising HIV epidemic through alarmist news headlines and media frames that perpetuate the marginalization and negative stereotypes of both gay/bisexual men and PLWH.

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**Table 1. Participants' characteristics and scores on independent variables.**

<b>Variable</b>	<b><i>n</i></b>	<b>%</b>	<b><i>M (SD)</i></b>
Gender			
Male	455	45.1	
Female	553	54.9	
Age (years)			46.71 (18.17)
<30	176	17.6	
30–40	182	18.2	
>40	641	64.2	
Education level			
Senior high school or below	721	71.8	
College or above	284	28.3	
Religious affiliation			
Christianity (including Catholicism)	194	19.3	
Buddhism	141	13.9	
Others	26	2.6	
None	647	64.2	
Monthly household income (HKD)			
<10,000	142	16.4	
10,000–50,000	551	63.8	
>50,000	171	19.8	
Sexual orientation			
Heterosexual	933	96	
Homosexual	12	1.2	
Bisexual	27	2.8	
Homophobia			2.76 (1.00)
Conformity to norms			3.58 (0.96)
Chinese orientation			3.73 (0.83)
Western orientation			3.09 (0.90)

**Table 2. Descriptive statistics of HIV-related stigma.**

	<i>n</i>	%	<i>M (SD)</i>
Overall average HIV-related stigma score			2.67 (.97)
Participants with low average scores ( $M \leq 2.00$ )	293	33.9	
Participants with high average scores ( $M \geq 4.00$ )	113	13.1	
Participants who agreed or strongly agreed with the statements:			
People get infected with HIV because they engage in irresponsible behaviors	436	43.8	
HIV is a punishment for bad behavior	239	23.7	
People living with HIV should feel ashamed of themselves	217	21.5	
Most people living with HIV have had many sexual partners	300	29.7	



**Table 3. Univariate and multiple linear regression models for HIV-related stigma.**

	<b>Univariate linear regression</b>	<b>Multiple linear regression</b>
	<b><i>B</i> (95% CI)</b>	<b><i>B</i> (95% CI)</b>
Gender	0.03 (-0.07, 0.19)	-
Age	0.27 (0.01, 0.2)***	0.07 (-0.00, 0.01)
Education level	-0.27 (-0.14, -0.09)***	-0.19 (-0.12, -0.04)***
Monthly household income	-0.18 (-0.06, -0.03)***	-0.02 (-0.03, 0.02)
Sexual orientation	0.03 (-0.16, 0.35)	-
Religious affiliation	0.09 (0.04, 0.32)*	-0.04 (-0.24, 0.09)
Homophobia	0.36 (0.30, 0.43)***	0.30 (0.21, 0.37)***
Conformity to norms	0.30 (0.24, 0.37)***	0.14 (0.06, 0.23)***
Chinese orientation	0.15 (0.09, 0.25)***	-0.02 (-0.13, 0.07)
Western orientation	-0.15 (-0.24, -0.09)	-
Adjusted <i>R</i> <sup>2</sup>		0.23

Notes: Sexual orientation was coded as 0 = heterosexual, 1 = homosexual/bisexual. Religious affiliation was coded as 0 = no religion, 1 = any religion. Only variables that were significant in the univariate analysis ( $p < .05$ ) are included in the multiple linear regression model.

\* $p < .05$ .

\*\*\* $p < .001$ .