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STIGMA AGAINST HIV-INFECTED PERSONS AMONG MIGRANT WOMEN LIVING IN SHANGHAI, CHINA

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Abstract

We examined the characteristics of 601 female migrants in Shanghai regarding stigmatizing attitudes toward people living with HIV/AIDS (PLWHA). A community-based cross-sectional study was conducted July and August 2008, using an anonymous questionnaire. Most participants (88%) were married, 9.2% reported multiple sexual partners, 19.1% knew about voluntary counseling and testing clinics, and 3.7% had been tested for HIV. About half (56.4%) agreed that people who acquire HIV/AIDS through sex or drug use deserve it. About 80% admitted that they were afraid of PLWHA. Low knowledge of HIV/AIDS, being older, low levels of education, and longer duration in Shanghai were correlates for having stigmatizing attitudes, while having premarital sex and/or multiple sex partners correlated with less stigma. HIV-related stigma among female migrants in Shanghai is common. Future stigma reduction prevention and intervention programs among female migrants should target those who are older, less educated, and have lived in Shanghai relatively longer.

Although there are different definitions of stigma, it has been generally described as an attitude that significantly discredits an individual (Goffman, 1963). Stigma is most frequently associated with diseases that have severe (incurable and progressive) outcomes and modes of transmission that are perceived to be due to an individual's personal behavioral (United Nations Development Program, 2003). HIV-related stigma refers to "prejudice, discounting, discrediting, and discrimination directed at people perceived to have HIV/AIDS, as well as the individuals, groups, and communities with which they are associated" (Herek & Capitanio, 1997). HIV-related stigma is often used to justify social inequality (Parker & Aggleton, 2003; Parker, Attawell, Pulerwitz, & Brown, 2002). It includes negative feelings, beliefs, and attitudes regarding people living with HIV/AIDS (PLWHA), such as the belief that they deserve their illness (Herek, 1999; Herek & Capitanio, 1994; Herek, Capitanio, & Widaman, 2002). Not understanding the disease, misconceptions about how HIV is transmitted, and lack of knowledge about protecting oneself may trigger stigmatization (Aggleton & Parker, 2002). HIV-related stigma and discrimination have been increasingly recognized as major obstacles to effective HIV/AIDS prevention and care programs (Parker & Aggleton, 2003; UNAIDS, 2002).

The epidemic of HIV/AIDS in China has spread dramatically since the first AIDS case was reported in 1985 (Wu, Rou, & Cui, 2004). The numbers of annually reported HIV infections in China have increased steadily at an average rate of 30% between 1995 and 2000 (China Centers for Disease Control and Prevention [CDC], 2004; Wu et al., 2004), and increased by 59% between 2002 and 2004. This was attributable largely to China's swiftly changing sexual morals (UNAIDS/World Health Organization [WHO], 2004). According to the UNAIDS 2006 report on the global AIDS epidemic and figures from the China CDC, it was estimated that 650,000 people are living with HIV/AIDS in China (range: 540,000–760,000), of whom 70,000 were newly infected in 2005 (range: 60,000–80,000) (F. Lu et al., 2006; UNAIDS/WHO, 2006). Many of the HIV-infected individuals in China are believed to be among the nation's 130 million rural-to-urban migrants. The migrant population has been reported to have a higher rate of HIV risk behaviors and higher STD infection rates (Anderson, Qingsi, Hua, & Jianfeng, 2003; X. Li et al., 2004). The epidemic of HIV/AIDS in China is creating serious public health problems and will threaten national security, social stability, and economic development in China unless effective intervention and prevention programs are implemented (Ministry of Health, People's Republic of China/United Nations Theme Group on HIV/AIDS in China, 2003).

As in many other countries, AIDS in China is a highly stigmatized disease. Characteristics of Chinese culture that foster increased HIV-related stigma include collectivism and filial duty (Liu et al., 2006; X. Lu, 1998). Because HIV infection is associated with stigmatized lifestyles such as drug use and commercial sex, HIV-infected persons are depreciated by a collectivist society (Liu et al., 2006). Although the Chinese government has made great efforts to control the HIV/AIDS epidemic in China, negative social responses toward PLWHA still occur (Hesketh, Zhu, & Dou, 2002). Researchers in China have documented that HIV-related stigma is quite prevalent in different populations (Chen, Choe, Chen & Zhang, 2005; Huang, Bova, Fennie, Rogers & Williams, 2005; L. Li, Lin et al., 2007; Liu et al., 2005). A study among health care providers in HIV epidemic areas revealed that even medical professionals who provide health care specifically to PLWHA have stigmatizing attitudes about PLWHA, similar to general society (L. Li, Lin et al., 2007). Lack of HIV/AIDS knowledge correlates with increased stigma toward PLWHA among people living in rural areas in China. Similar results were also reported in other studies (Chen et al., 2005; Huang et al., 2005). Chen et al. (2005) reported a study carried out in 66 communities in China showing that about half of participants had stigmatizing attitudes about PLWHA. A study among migrants in Anhui, China revealed that 65% had stigmatizing attitudes, and poor HIV/AIDS knowledge caused increased stigma toward PLWHA in that population (Liu et al., 2005; H. Liu, 2006). Ninety in-depth interviews conducted among rural-to-urban migrants revealed that their attitudes toward HIV-infected individuals mainly derived from fears of contagion and being associated with diseases, as well as culturally based moral judgments (Hong et al., 2008).

HIV-related stigma and discrimination have been increasingly recognized as major obstacles to effective HIV/AIDS prevention and care programs (Parker & Aggleton, 2003). One of the major barriers to the adoption of HIV prevention strategies is that HIV-related stigma can cause people to refute risk, refuse testing, delay treatment, not disclose their HIV status, and not seek public assistance (Lee et al., 2005; Valdiserri, 2002). A study conducted in the United States showed that one third of American adults reported that their concerns about AIDS stigma would deter them from being tested for HIV in the future (Herek et al., 2002). This could also be a barrier for Chinese female migrants.

Chinese female migrants are usually young and poorly educated. They are more likely to have more conservative values than male migrants. In a study in Shanghai, about 87.4% of female migrants perceived themselves to be at no risk for being infected with HIV, 12.0%

didn't know if they were at risk, and only 3.7% of them had been tested for HIV (Cao et al., in press). With the rapidly increasing HIV epidemic in China, the proportion of HIV infections transmitted through heterosexual activities is constantly increasing (Wu et al., 2004). Heterosexual transmission, especially among subsets of migrants, is now a major route of infection (Anderson et al., 2003; X. Li et al., 2004; Wu et al., 2004). Hence, it is important to understand female migrants' attitudes about HIV/AIDS and related factors. To our knowledge, no other quantitative studies have been conducted regarding HIV prejudicial attitudes specifically among female migrants in China. Therefore, this study studied the prevalence and characteristics of female migrants with stigmatizing attitudes about HIV in a major city in China.

METHODS

STUDY SITES

The first HIV case in Shanghai was reported in 1987. By the end of 2008, there were 3,747 reported HIV cases in Shanghai (736 were newly infected in 2008). About 74% of the newly infected cases were migrants, and two thirds of these cases were 25–44 years old. Shanghai has an estimated population of 18.88 million people. There are about 5 million migrants currently living in Shanghai (National Bureau of Statistics, 2006). Most (84.7%) are younger than 35 years, and their median age is 27.3 years. The current study was conducted in a community located between urban and suburban areas in the southwestern part of Shanghai, where a large migrant population resides. Three communities favored by migrants were chosen as the study sites. There were approximately 4,000–5,000 migrants living in each of the sites (according to the local Migrants' Administrative Office). The data were collected in July and August 2008 from female migrants in Shanghai.

SAMPLE SELECTION

For the purposes of this study, a migrant was defined as someone who was born and registered as a permanent resident in a rural area outside of Shanghai and was living in Shanghai at the time the survey was conducted.

A community-based cross-sectional study was conducted. The inclusion criteria of the study were as follows. Participants had to be females between 18 and 40 years old and they had to have been living in Shanghai for at least 3 months. After communicating with local officers, research posters were distributed 3 days before interviewing began in each community. Those who were interested in participating in the study went to a rented office located close to their community to enroll. Informed consent was obtained from every participant before the interview, and appointments were made at their convenience. Information was collected from 601 female migrants, using a convenience sample.

The interviews were anonymous and administered in private rooms. Based on a pilot qualitative study, face-to-face interviews were preferred by participants, probably because of the generally low literacy level in this population. All interviews were conducted by female graduate students who had had previous experience with administering epidemiological questionnaires. A small incentive (U.S.\$7) was given to each participant as compensation for her time.

MEASURES

The quantitative questionnaire, developed specifically for this study, contained a total of 114 questions assessing participants' demographic characteristics, knowledge of HIV/AIDS and STDs, stigma against PLWHA, perceptions of availability of AIDS- and STD-related information and services, and sexual behaviors. One of the instruments, the prejudicial

attitude scale, was based on the *HIV/AIDS-Related Stigma and Discrimination Indicators Development Workshop Report* and a study that assessed the level of general prejudicial attitudes toward PLWHA among health service providers in China (L. Li, Lin et al., 2007a; USAIDS Interagency Working Group on Stigma and Discrimination, 2004). Prejudicial attitudes were assessed by asking participants their degree of agreement with statements such as “AIDS is punishment for bad behaviors,” and “a person who has HIV is dirty.” A total of 12 statements were used, and the scores for each question ranged from 1 (strongly disagree) to 5 (strongly agree); therefore, summary scores could range from 12 to 60 (highest degree of stigma). The direction of some items was reversed so that a higher score consistently indicated a higher degree of general prejudicial attitude. The Cronbach’ alpha for the variable was .87, indicating acceptable interitem reliability.

Knowledge of HIV/AIDS was assessed with 17 questions (Table 1) that have been used together or separately in many HIV studies to measure HIV-related knowledge (Chen et al., 2005; L. Li, Lin et al., 2007a). For each item, a correct answer was given 2 points; stating “don’t know” was scored one point; and each incorrect answer received 0 points. Total scores could therefore range from 0 to 34. We also included variables on respondents’ demographic characteristics, such as age, education, ethnicity, duration in Shanghai, exposure to information related to HIV/AIDS in the past 3 months, knowledge of HIV voluntary counseling and testing (VCT), and willingness to be tested for HIV at a VCT clinic.

ETHICAL REVIEW

This study was approved by the institutional review boards (IRBs) of the University of California at Los Angeles and Fudan University in Shanghai, China. Each participant was told that the study was anonymous, that their participation was voluntary, and that they could refuse to answer any question or withdraw from the interview at any time.

DATA ANALYSIS

All analyses were conducted using SAS statistical software (SAS Institute, Inc., Cary, NC), Version 9.1. Descriptive statistics were used to elucidate the pattern of general prejudicial attitudes among female migrants. Using summary scores of the 17 knowledge items mentioned above, stigmatizing attitudes were assessed using a mean of the prejudicial attitude scale. Associations of demographic characteristics, education, marital status, duration in Shanghai, level of knowledge of HIV/AIDS, recent exposure to HIV/AIDS information, and prior familiarity with VCT were correlated with stigmatizing attitudes using the one-way analysis of variance test. Multiple linear regression analyses were performed to examine the associations between general prejudicial attitudes and HIV/AIDS knowledge, recent exposure to HIV/AIDS information, and familiarity with VCT, controlling for the simultaneous effects of participants’ ages, ethnicity, education, and duration in Shanghai. Regression coefficient estimations and their significance levels were reported.

RESULTS

We identified 664 female migrants, of whom 601 (90.5%) agreed to participate in the study. The mean age of all participants was 31.7 years. One third of the participants were over 35 years old. About 30% of all subjects had no schooling or only some primary school. A total of 529 (88.0%) were currently married. Most (84.7%) of the participants were living with a husband/boyfriend. About one third (31.5%) reported having had premarital sex, and 9.2% had had more than one sexual partner. Seventeen percent were unemployed, and about 29% had an average household income of less than 1000 yuan (about \$145) per month. Six

percent of the participants had been in Shanghai for less than 6 months, and about 13% had been in Shanghai for over 10 years.

Scores on HIV/AIDS knowledge ranged from 7 to 34 (highest possible score), and the mean was 23.6. Only 16% of all participants had been exposed to HIV-related information in the past 3 months. Only 19.1% of the study participants knew about VCT clinics. Twenty-two reported having been tested for HIV in the past. However, 67.2% responded that they would be tested if it were free and confidential.

The mean of general prejudicial attitudes was 3.5 on a scale of 1 (minimum) to 5 (highest degree of prejudice), and ranged from 1.4 to 5. Descriptive analyses of female migrants' general prejudicial attitudes about PLWHA are presented in Table 1. Over half (56.4%) felt that people who acquired HIV/AIDS through sexual contact or drug use got what they deserved. About 80% admitted that they were afraid of PLWHA. Over half of the respondents felt that AIDS was a punishment for bad behavior. Two thirds (67.8%) admitted that they would not eat with PLWHA, and 74.4% that they would not buy food from PLWHA. Forty-three percent admitted that they would be ashamed if one of their family members were infected with HIV/AIDS.

Table 2 presents the relationships between prejudicial attitudes toward PLWHA and participants' characteristics. Older female migrants were significantly more likely than younger women to have prejudicial attitudes toward PLWHA ($F = 33.58, p < .001$). Significant relationships were also found with Han ethnicity ($F = 5.54, p < .05$), less education ($F = 29.71, p < .001$), being married ($F = 27.51, p < .001$), living with husbands/boyfriends ($F = 9.75, p < .01$), longer duration in Shanghai ($F = 13.01, p < .001$), having multiple sexual partners ($F = 4.76, p < .05$), and engaging in premarital sex ($F = 41.42, p < .001$). We ranked summary scores of HIV/AIDS knowledge as "good" for >25 points and "poor" for < 25 points (maximum score possible was 34). Female migrants with good HIV/AIDS knowledge had significantly less stigma against PLWHA ($F = 12.42, p < .01$). Those who had heard about HIV/AIDS in the past three months were also less likely to have stigmatizing attitudes ($F = 12.07, p < .001$).

The results of multiple regression analyses are summarized in Table 3. Multiple regression of factors associated with stigma indicated that older female migrants were more likely to report prejudicial attitudes ($\beta = 0.04$). Participants living in Shanghai relatively longer reported more stigma than those who had stayed in Shanghai for a shorter time ($\beta = -.26, p = .04$). On the other hand, minority ethnicities ($\beta = -.50, p = .03$) and those who had higher education (middle school or higher) ($\beta = -.20, p = .002$) were less likely to stigmatize PLWHA than those of Han ethnicity or those who had the less education (no schooling or primary school). Study subjects who reported having had premarital sex indicated less stigma ($\beta = -.20, p = .06$). In addition, migrants who had recently heard information about HIV/STDs were less likely to manifest stigma than those who had not ($\beta = -.14, p = .08$). Not surprisingly, female migrants with sound knowledge about HIV/AIDS were significantly less likely to have stigma against PLWHA than those with poor knowledge ($\beta = -.14, p = .03$).

DISCUSSION

General prejudicial attitudes against PLWHA were reported by over half of the participants. Three important findings of the study deserve further consideration. Multivariable analyses indicated that participants' levels of knowledge of HIV/AIDS and knowledge about HIV/STDs were important predictors for milder stigma against PLWHA. Older age, lower education levels, and relatively longer duration in Shanghai were significantly related to

stigma against PLWHA. Fewer minority migrants reported reducing effects on HIV/AIDS-related stigma. Those who admitted to engaging in high-risk sexual behaviors such as premarital sex or multiple partners had lower scores, reflecting less stigma against PLWHA.

In the current study, those with sound knowledge of HIV/AIDS indicated less stigma against PLWHA compared with those with poor HIV/AIDS knowledge. This finding is consistent with a previous study by Chen et al. (2005), who reported that HIV/AIDS-related stigma was much higher among individuals who had inaccurate beliefs about how HIV/AIDS was transmitted and poor knowledge of HIV/AIDS. HIV knowledge can reduce people's general prejudicial attitudes. HIV/AIDS-related stigma negatively affects preventive behaviors such as condom use, undergoing HIV testing, and care-seeking behavior upon diagnosis, as well as quality of care given to HIV-positive patients (Brown, Macintyre, & Trujillo, 2003). Therefore, reduction of stigma must be considered an important component of successful HIV prevention and intervention approaches (Yang et al., 2006). Due to the association between better HIV/AIDS knowledge and less stigma among female migrants, future stigma reduction intervention programs should be designed to deliver HIV/AIDS knowledge and include small group activities such as role-playing, games, and group discussions that might help reduce stigma.

We found that older participants were more likely to report stigmatizing attitudes than those who were younger. A study among health service providers also revealed that older health service providers were more likely to report general prejudicial attitudes toward PLWHA (L. Li, Wu et al., 2007b). Less stigma was reported among persons younger than 30 years in the study by Chen et al. (2005). Our findings are consistent with these earlier studies. Therefore, future HIV stigma reduction programs among migrant women should particularly target older migrant women.

Our study participants were generally poorly educated. About one third of them had no education or only primary schooling. The study results indicate that female migrants with middle school or higher education had less stigma against PLWHA than those with less education. This observation was similar to a previous study among migrants in Beijing and Nanjing (Liu et al., 2005). Several studies have reported that people who have minimal education or misperceptions regarding HIV transmission are more likely to have discriminatory attitudes ((Foreman, Lyra, & Brinbauer, 2003; Siminoff, Erlen, & Lidz, 1991). Ignorance promotes fear and prejudice. In our study, among those who had middle school or higher education, 76% had good knowledge of HIV/AIDS, whereas only 58.5% had good knowledge among those with lower levels of education. For this reason, future stigma reduction programs should be simple and easily understood, so that migrants with little education can understand and benefit from them.

Limitations of our data should be noted. The data were collected from a single district in Shanghai, which might not be representative of other migrant populations in China. Female migrants in Shanghai may have different demographic characteristics than migrants in other cities. For these reasons, caution should be used in generalizing our study findings to different geographic locations or populations. In addition, this study was cross-sectional and recall may have been inaccurate. Moreover, our study did not consider community-level factors. Community-level "norms" have been reported to have strong effects on HIV/AIDS-related stigma (Chen et al., 2005).

In conclusion, this study provides new evidence that HIV/AIDS-related stigma varies according to individual social demographic characteristics. Our findings provide some basic information for designing future HIV-related stigma reduction intervention programs among migrant populations. Future HIV-related stigma reduction intervention programs targeting

female migrants should be simple, easily understood, and improve HIV/AIDS knowledge. Intervention programs to reduce stigma should particularly target older, less educated female migrants.

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REFERENCES

- Aggleton, P.; Parker, R. HIV/AIDS: stigma, discrimination and human rights abuses. Washington, DC: Joint United Nations Programme on HIV/AIDS; 2002.
- Anderson AF, Qingsi Z, Hua X, Jianfeng B. China's floating population and the potential for HIV transmission: A social-behavioral perspective. *AIDS Care*. 2003; 15:177–185. [PubMed: 12856339]
- Brown L, Macintyre K, Trujillo L. Interventions to reduce HIV/AIDS stigma: What have we learned? *AIDS Education and Prevention*. 2003; 15:49–69. [PubMed: 12627743]
- Cao H, He N, Jiang Q, Yang M, Tao G, Gao M, Liu X, Detels R. Sexually Transmitted Diseases and Related Risk Factors among Migrant Women Living in Shanghai. (in press).
- Chen J, Choe MK, Chen S, Zhang S. Community environment and HIV/AIDS-related stigma in China. *AIDS Education and Prevention*. 2005; 17:1–11. [PubMed: 15843106]
- China Centers for Disease Control and Prevention. HIV/AIDS surveillance report. Beijing: China Center for Disease Control and Prevention; 2004.
- Foreman, M.; Lyra, P.; Breinbauer, C. Understanding and responding to HIV/AIDS-related stigma and discrimination in the health sector. Washington DC: Pan American Health Organization; 2003.
- Goffman, E., editor. *Stigma: notes on the management of spoiled identity*. Englewood Cliffs, NJ: Prentice-Hall; 1963.
- Herek GM, Capitanio CJ. AIDS stigma and contact with persons with AIDS: effects of direct and vicarious contact. *Journal of Applied Social Psychology*. 1997; 27:1–36.
- Herek GM. AIDS and stigma. *American Behavioral Scientist*. 1999; 42(7):1106–1116.
- Herek GM, Capitanio JP. Conspiracies, contagion, and compassion: trust and public reactions to AIDS. *AIDS Education & Prevention*. 1994; 6:365–375. [PubMed: 7986656]
- Herek GM, Capitanio JP, Widaman KF. HIV-related stigma and knowledge in the United States: Prevalence and trends, 1991–1999. *American Journal of Public Health*. 2002; 92:371–377. [PubMed: 11867313]
- Hesketh T, Zhu WX, Duo L. Editorial on epidemiology of HIV in China was misleading. *British Medical Journal*. 2002; 325:493. [PubMed: 12202338]
- Huang J, Bova C, Fennie KP, Rogers A, Williams AB. Knowledge, attitudes, behaviors, and perceptions of risk related to HIV/AIDS among Chinese university students in Hunan, China. *AIDS Patient Care and STDs*. 2005; 19:769–777. [PubMed: 16283837]
- Hong Y, Li X, Stanton B, Fang X, Lin D, Wang J, Mao R, Yang H. Expressions of HIV-related stigma among rural-to-urban migrants in China. *AIDS Patient Care and STDs*. 2008; 22:823–831. [PubMed: 18847389]
- Lee MB, Wu ZY, Rotheram-Borus MJ, Detels R, Guan JH, Li L. HIV-related stigma among market workers in China. *Health Psychology*. 2005; 24:435–438. [PubMed: 16045380]
- Li L, Lin C, Wu Z, Wu S, Rotheram-Borus MJ, Detels R, et al. Stigmatization and shame: consequences of caring for HIV/AIDS patients in China. *AIDS Care*. 2007a; 19:258–263. [PubMed: 17364408]
- Li L, Wu Z, Wu S, Zhaoc Y, Jia M, Yan Z. HIV-related stigma in health care settings: a survey of service providers in China. *AIDS Patient Care & STDs*. 2007b; 21:753–762. [PubMed: 17949274]

- Li X, Fang X, Lin D, Mao R, Wang J, Cottrell L, et al. HIV/STD risk behaviors and perception-s among rural-to-urban migrants in China. *AIDS Education and Prevention*. 2004; 16:538–556. [PubMed: 15585430]
- Liu H, Hu Z, Li X, Stanton B, Naar-King S, Yang H. Understanding interrelationships among HIV-related stigma, concern about HIV infection, and intent to disclose HIV serostatus: A pretest-posttest study in a rural area of eastern China. *AIDS Patient Care STDS*. 2006; 20:133–142. [PubMed: 16475894]
- Liu H, Li X, Stanton B, Fang X, Mao R, Chen X, et al. Relation of sexual risks and prevention practices with individuals' stigmatising beliefs toward HIV infected individuals: An exploratory study. *Sexually Transmitted Infections*. 2005; 81:511–516. [PubMed: 16326857]
- Lu F, Wang N, Wu Z, Sun X, Rehnstrom J, Poundstone K, et al. Estimating the number of people at risk for and living with HIV in China in 2005: methods and results. *Sexually Transmitted Infections*. 2006; 82 Suppl. 3iii:87–91.
- Lu X. An interface between individualistic and collectivistic orientations in Chinese cultural values and social relations. *Howard Journal Communications*. 1998; 9:91–107.
- Ministry of Health, People's Republic of China/United Nations Theme Group on HIV/AIDS in China. Joint assessment report on HIV/AIDS prevention and control in China. Beijing: 2003 June.
- National Bureau of Statistics of China. 2005 Shanghai 1% population sample survey data. 2006 [Accessed March 2010]. www.stats.gov.cn
- Parker R, Aggleton P. HIV and AIDS-related stigma and discrimination: a conceptual framework and implications for action. *Social Science & Medicine*. 2003; 57:13–24. [PubMed: 12753813]
- Parker, R.; Attawell, K.; Pulerwitz, J.; Brown, L., editors. HIV/AIDS-related stigma and discrimination: a conceptual framework and an agenda for action. Washington, DC: Horizons Program; 2002.
- Shanghai: Xinmin.cn. [Retrieved October 2008]. from <http://sh.xinmin.cn/shehui/2008/11/30/1453664.html>
- Siminoff LA, Erlen JA, Lidz CW. Stigma, AIDS and quality of nursing care—state of the science. *Journal of Advanced Nursing*. 1991; 16:262–269. [PubMed: 2037730]
- UNAIDS/World Health Organization. World AIDS Campaign 2002–2003. A conceptual framework and basis for action: HIV/AIDS stigma and discrimination. Geneva, Switzerland: UNAIDS; 2002.
- UNAIDS/ World Health Organization. AIDS epidemic update. Geneva, Switzerland: UNAIDS; 2004.
- UNAIDS/ World Health Organization. AIDS epidemic update. Geneva, Switzerland: UNAIDS; 2006.
- United Nations Development Program. Regional human development report: HIV/AIDS and development in South Asia. New Delhi, India: 2003.
- USAIDS Inter-Agency Working Group on Stigma and Discrimination. HIV-Related Stigma and Discrimination Indicators Development Workshop report. Washington, DC: Author; 2004.
- Valdiserri RO. HIV/AIDS stigma: An impediment to public health. *American Journal of Public Health*. 2002; 92:341–342. [PubMed: 11867303]
- Wu Z, Rou K, Cui H. The HIV/AIDS epidemic in China: History, current strategies and future challenges. *AIDS Education and Prevention*. 2004; 16:7–17. [PubMed: 15262561]
- Yang H, Li X, Stanton B, Fang X, Lin D, Naar-King S. HIV-related knowledge, stigma, and willingness to disclose: A mediation analysis. *AIDS Care*. 2006; 18:717–724. [PubMed: 16971280]

TABLE 1
 Female Migrants' General Prejudicial Attitude Toward People Living with HIV/AIDS (PLWHA)

	Disagree		Not Sure		Agree	
	No.	(%)	No.	(%)	No.	(%)
People who got HIV/AIDS through sex or drug use got what they deserved	280	30.0	82	13.6	339	56.4
AIDS is a punishment for bad behavior	193	32.1	80	13.3	328	54.5
People who behave promiscuously should be blamed for AIDS	106	17.6	86	14.3	409	68.1
People living with HIV should have the right to marry	339	56.4	62	10.3	200	33.3
You are afraid of people living with HIV	95	15.8	35	5.8	471	78.4
You would feel ashamed if someone you know got HIV/AIDS	310	51.6	75	12.5	216	36.0
You would feel ashamed if someone in your family got HIV/AIDS	269	44.7	74	12.3	258	42.9
You would not buy from a food vendor who has HIV/AIDS	110	18.3	44	7.3	447	74.4
You would not share eating utensils with a person living with HIV because you are afraid of getting infected	144	24.0	50	8.3	407	67.8
You would be willing to work with an HIV-positive coworker	272	45.2	61	10.2	268	44.6
People with HIV should lose their jobs	249	41.4	78	13.0	274	45.6
People with HIV should lose their jobs	237	39.5	112	18.6	252	42.0

TABLE 2

Female Migrants' Characteristics Associated With Stigma Toward PLWHA

	<i>N</i>	Mean	<i>SD</i>	<i>F</i> Value
Age				
18–25 yrs	110	2.97	0.65	33.58***
26–30 yrs	135	3.27	0.70	
30–35 yrs	159	3.59	0.78	
>36 yrs	197	3.78	0.74	
Ethnicity				
Han	591	3.48	0.78	5.54*
Other	10	2.89	0.81	
Education				
No schooling	42	3.76	0.69	29.71***
Primary school	165	3.78	0.75	
Middle school	316	3.41	0.74	
High school or higher	78	2.88	0.67	
Marital status				
Single/separated/ widowed	72	3.02	0.76	27.51***
Married	529	3.53	0.77	
Living with husband/boyfriend				
No	92	3.23	0.76	9.75**
Yes	509	3.51	0.78	
Duration in Shanghai				
<1 year	38	3.03	0.65	13.01***
>1 year	563	3.50	0.78	
Number of sexual partners				
<1	546	3.49	0.79	4.76*
>1	55	3.25	0.71	
Premarital sex				
No	412	3.60	0.77	41.42***
Yes	189	3.17	0.74	
Knowledge of HIV/AIDS				
Poor	359	3.55	0.75	12.42**
Good	242	3.33	0.81	
Recently had information about HIV/AIDS				
Yes	96	3.22	0.77	12.07***
No	505	3.52	0.78	
Previously heard of VCT				
Yes	115	3.23	0.82	12.81**
No	486	3.52	0.76	

Note. VCT – voluntary counseling and testing.

*
 $p < 0.05$

**
 $p < 0.01$

 $p < 0.001$

TABLE 3

Factors Associated With Stigma Among Female Migrants ($N = 601$), Results From Multiple Linear Regression^a

Variables	β	t Value	p
Age	.04	6.30	<.0001
Minority ethnicity	-.50	-2.20	.03
Middle school or above	-.20	-3.15	.002
Married	.002	.02	.98
Living with husband or boyfriend	-.79	-.74	.46
Reported premarital sex	-.14	-1.82	.06
Had multiple sex partners	.05	.50	.62
Living in Shanghai more than a year	.26	2.10	.04
Had good knowledge of HIV/STDs	-.14	-2.20	.03
Heard information about HIV/STDs recently	-.14	-1.72	.08
Previously heard of VCT	-.09	-1.16	.24
R^2	1	.21	

Note. STDs – sexually transmitted diseases; VCT – voluntary counseling and testing.

^a A higher score of stigma indicated a higher degree of general prejudicial attitude.