

## An Investigation of AIDS-related Knowledge and Reactions among College Students in China

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**Abstract:** A total of 251 Chinese college students from Shanghai (31 males, 88 females) and Guangzhou (59 males, 73 females) completed a series of scales concerning AIDS related knowledge, affective feelings and attitude toward PWA, discomfort of contact with PWA, perceived responsibility of contracting AIDS, and support of coercive polices. Results showed that college students (a) had misconceptions about casual contagion of AIDS, independent of correct beliefs about AIDS, (b) expressed significant negative feelings toward PWA, (c) expressed discomfort of contact with PWA, (d) did not support coercive policies upon PWA ; (e) did not think it was PWA's responsibility to contract AIDS; and that (a) compared with college students from Guangzhou, those from Shanghai were more knowledgeable of AIDS and exhibited less negative feelings, negative attitude toward PWA and attributed less responsibility to PWA for their contracting of AIDS; and (b) it was misconception about casual contagion of AIDS but not correct beliefs about AIDS that was consistently predictive of negative reactions toward PWA. These findings call for strong efforts in disseminating AIDS related knowledge, particularly what can't cause AIDS, and eliminating negative reactions towards PWA among college students in China, especially students in Guangzhou area.

**Key words:** AIDS; people with AIDS (PWA); misconceptions; perceived responsibility; coercive policies

### Introduction

Since the first AIDS case was reported in 1985 in China, the epidemic in China has been spreading at an alarming rate. The number of annually reported HIV infections in China has been increased steadily at an average rate of 30% every year from 1995 to 2000 and at an accelerated rate thereafter (China Ministry of Health and UN Theme Group on HIV/AIDS in China, 2003; Wang, 1998; Zheng, Zhu, Yang, & Zhang, 1989). The latest reports of the AIDS epidemic in China have confirmed 319,877 cases of persons with HIV infections and estimated that approximately 740,000 people were infected with HIV, of which approximately 102,323 people have developed AIDS (National Center for AIDS/STD Control and

Prevention, China CDC., 2009). Currently, AIDS is spreading from so-called high risk groups, such as drug users and commercial sex workers, to common people, such as college students (China Ministry of Health and UN Theme Group on HIV/AIDS in China, 2008).

As premarital sex has become more acceptable among young people in China since 1980s (Zhang, Li, Li, & Beck, 1999), Chinese college students are now becoming a high risk group of HIV infection. A recent research revealed that 14% of college students were sexually active, out of which 40% never used condoms (Huang, Bova, Fennie, Rogers, & Williams, 2005). In 2005, an official from China Ministry of Health acknowledged that college students along with farmers were becoming high risk groups of AIDS (Law daily, July 25, 2005). Given this, efforts of AIDS education and

prevention in college students have started recently in China (Xinhua News, Agency, 19 June 2007).

Research in the perspective of social psychology has demonstrated that increasing people's knowledge about AIDS is very important for effective AIDS education and prevention (see a review, Herek, 1999). Knowing the lethality of AIDS and the routes through which AIDS is transmitted is critical for AIDS preventive behaviors (DiMatteo, 1991; Fisher & Fisher, 1992); knowing AIDS can not be transmitted by casual contact is helpful to eliminate unnecessary fear of AIDS and negative reactions toward people with AIDS (Batchelor, 1988; Herek, Capitanio, & Widaman, 2002). Meanwhile, eliminating AIDS related stigma is also critical for AIDS prevention, intervention, and control. As noted by Batchelor (1988), "AIDS is caused by a virus, but clearly it is indirectly being spread by fear, denial, and prejudice" (p. 853–858). Fear of AIDS, prejudice, and concomitant discrimination could deter people at risk of AIDS from being tested and people with AIDS from disclosing their health status, consequently increasing the possibility of transmitting HIV to others. Stigma also could make PWA, their families, as well as their caregivers experience prejudice, discrimination, and even be ostracized from schools, working places, and other public areas (see Herek, 1999, for a detailed review). AIDS stigma, as a worldwide phenomenon (Mann, Tarantola & Netter, 1992; Herek & Glunt, 1988; Farmer, 1992; Herek, Capitanio, 1993), is now also becoming a great barrier for AIDS prevention efforts in China (Wu, Rou, & Cui, 2004; China Ministry of Health and UN Theme Group on HIV/AIDS in China, 2004).

Empirical data about the extent to which people are knowledgeable of AIDS and to which stigma is prevalent are highly useful for developing AIDS education and prevention program. Research in U.S.A. showed that Americans have disproportionate knowledge about AIDS and that AIDS stigma persisted (Herek,

Capitanio & Widaman, 2002). In China, one study showed although most of the surveyed students knew the right modes of AIDS transmission, they showed considerable misconceptions about the possibilities of contagions by casual contact, symptoms of AIDS, and effective ways for treatment and prevention (Li, Lin, Gao, Stanton, Fang, Yin, et al., 2004). Another study revealed considerable misconceptions about HIV transmission by casual contact as well as negative attitude toward risk behaviors and PWA (Huang, et al., 2005). Both studies not only provided evidence of the lack of AIDS related knowledge in China but also leave a gap as to what is the relationship between this knowledge and people's reactions toward PWA.

Given the limited number of studies conducted in China and findings from previous studies, the present study aims to examine AIDS related knowledge and reactions toward PWA among college students in China. Particularly, we distinguished *misconceptions* that AIDS could be caused by casual contact from *correct beliefs* about the nature and spreading routes of AIDS. Then we examined whether and how *misconceptions* and *correct beliefs* could predict reactions toward PWA among Chinese college students. Since misconceptions are more likely to cause fear of AIDS than are correct beliefs (Batchelor, 1988), we expected that misconceptions would be more predictive of reactions toward AIDS. For those reactions, we not only examined general attitude toward PWA in China, but also examined affective feelings toward PWA, such as angry, disgust, fear, pity, and sympathy together with other reactions, such as discomfort of contact with PWA, perceived responsibility of PWA's contracting HIV, and support for coercive policies on PWA. We expected that Chinese people's prejudice toward PWA would manifest on all these variables, but the extents might vary across variables. In addition, we also examined possible gender and geographic differences in the surveyed variables. In our knowledge, no research has been done on all these

issues among Chinese college students so far. We believe that such a thorough investigation will provide a solid theoretical foundation to implement more effective AIDS education and prevention programs in China.

## Method

### *Participants*

Two hundred and fifty one college students with varied majors were recruited from East China Normal University in Shanghai (31 males, 88 females) and Sun Yat-Sen University in Guangzhou (59 males, 73 females) through on-campus posters on bulletin boards. Data from three participants were treated as outliers because of their extreme response styles (that is, they had extreme scores on most items) and subsequently were discarded. Thus, 248 participants were included in the following formal analyses. Among them, 229 students reported their ages, with a mean age of 20.23 years (17~27 years,  $SD = 1.91$  years). Most of them were undergraduates (96%) except for a few graduates.

### *Measures*

*AIDS Related Knowledge* The scale was adapted from a previous study conducted in Japan including 16 items (see table 1) (Maswanya, Moji, Aoyagi, Yahata, Kusano, Nagata, et al, 2000). Two kinds of knowledge about AIDS were involved in the scale: *misconceptions* about casual contagion of AIDS (e.g., Mosquito bite is one possible cause of infection) and *correct beliefs* about nature and transmitting routes of AIDS (e.g., AIDS is a viral infectious disease). Subjects were required to indicate whether they agree or disagree with each statement that concerns a certain kind of knowledge about AIDS. *Misconceptions* were reflected by the mean percentage of the correct answer across related items and *correct beliefs* were reflected by the mean percentage of the correct answer across the remaining items.

*Affective Feelings toward PWA* Five items were adapted from Herek et al.'s (2002) research to

measure participants' emotional reactions toward PWA including angry, disgusted, afraid, pity and sympathetic. Participants were asked to rate the extent to which they experience each of the five feelings above when thinking about the PWA in a scale ranging from 1 ("not at all") to 7 ("extremely strong").

*Attitude toward PWA* In the present study, a feeling thermometer was used to measure preferences or feelings toward PWA. Feeling thermometer is widely used as an attitude measure in social psychology (e. g. Greenwald, McGhee, & Schwartz, 1998). In the present study, participants were asked to rate how warm (favorable) or cold (unfavorable) they feel toward PWA on a scale ranging from 1 to 10. Higher score represents warmer or more favorable feelings toward PWA.

*Other reactions toward PWA* Three scales were adapted from Herek et al.'s study (Herek, et al., 2002). *Support for coercive policies* was measured by two items: "People with AIDS should be legally separated from others to protect the public health." and "The names of people with AIDS should be made public so that others can avoid them." *Perceived Responsibility* was measured by three items: "People with AIDS have gotten what they deserve.", "People with AIDS don't care if they infect other people with the AIDS virus.", and "People with AIDS are responsible for having their illness". *Discomfort of contact with PWA* was measured by four items: "It is difficult to have a person with AIDS as close friend.", "I would not be frightened to touch a person with AIDS", "There is no problem sharing an apartment with a person with AIDS.", and "I would not like to have physical contact with a person with AIDS." For all items above, subjects were asked to indicate the extent to which they agree or disagree with the statement on a scale ranging from 1 ("strongly disagree") to 7 ("strongly agree").

### *Procedure*

All items above were translated from English

into Chinese by the first author. Then back-translations were done by a bilingualist. The participating in the study is totally voluntary and anonymous. Before participating in the study, all subjects were required to sign a consent form. To ensure the anonymity of study, during the survey each subject was randomly assigned a subject number and no name was required. Moreover, no link between the consent form and data file existed. Subjects completed the questionnaire on computers with scales presented in a random order, in separate rooms. All data were automatically recorded by computers. After finishing the survey, each subject was paid 10 Chinese Yuan for his/her participation, then debriefed and thanked.

## Results

### *AIDS related knowledge among Chinese college students*

The percentages of correct answers for each item in knowledge scales were displayed in Table 1. From the table we can see that almost all surveyed college students had good knowledge about the correct routes of AIDS transmission, however, a big proportion of the college students did not know the nature of AIDS very well and did not know that AIDS would not be caused by casual contact. The imbalance of knowledge about AIDS transmission routes was consistent to previous findings both in China and United States (Li, et al., 2004; Huang, et al., 2005; Herek, et. al., 2002).

Table 1

*The Percentages of Correct Answers in Knowledge about AIDS in College Students*

	Correct response	Correct answer (%)	95% CI	
			low	up
1. Mosquito bites is one possible cause of infection	FALSE	58.9	52.7	65.0
2. Infected blood can transmit the virus	TRUE	98.0	96.2	99.7
3. Sexual intercourse with an AIDS person is a possible transmission route	TRUE	99.6	98.8	100
4. Living in the same room with an AIDS person is a possible transmission route	FALSE	73.9	68.4	79.4
5. Shaking hands with an AIDS person is a possible transmission route	FALSE	97.6	95.7	99.5
6. Living in the same house with an AIDS person is a possible transmission route	FALSE	94.4	91.5	97.3
7. Sharing the same swimming pool with an AIDS person is a possible transmission route	FALSE	52.4	46.2	58.6
8. Sharing the same toilet with an AIDS person is a possible transmission route	FALSE	58.1	52.0	64.2
9. Sneezing and coughing are possible routes for AIDS infection	FALSE	85.1	80.7	89.5
10. Mother to fetus infection is a possible transmission route	TRUE	97.6	95.7	99.5
11. AIDS is a viral infectious disease	TRUE	80.2	75.2	85.2
12. There is no effective treatment	TRUE	77.8	72.6	83.0
13. There is no effective vaccine	TRUE	89.1	85.2	93.0
14. People immediately show signs of sickness after infection of HIV	FALSE	92.3	89.0	95.6
15. AIDS is a life-threatening disease	TRUE	77.4	72.2	82.6
16. Patients have particular appearances	FALSE	89.5	85.7	93.3

*Note.* Items 1, 4, 5, 6, 7, 8, 9 belong to defined *misconceptions* and the remaining items belong to defined *correct beliefs*.

The mean percentages of correct answer for *misconceptions* and *correct beliefs* were presented in Table 2. The correlation of these two scales,  $r = 0.07$ ,  $p = 0.27$ , indicated that having correct beliefs was independent from having misconceptions. The students got most of the correct facts about AIDS, however, a lot of them have misconceptions too. They were significantly

more knowledgeable about *correct beliefs* than *misconceptions*,  $t = -9.50$ ,  $p < 0.001$ .

We conducted two two-way ANOVAs to examine the city and gender differences in *misconceptions* and *correct beliefs*, respectively. The ANOVA on *misconceptions* revealed a significant geographical difference,  $F(1, 244) = 6.74$ ,  $p < 0.01$ ,  $\eta_p^2 = 0.027$ , suggesting that college students from

Shanghai had significantly fewer *misconceptions* about AIDS. There was no significant gender difference,  $F(1, 244) = 2.52, p = 0.11, \eta_p^2 = 0.010$  and no significant interaction between city and gender,  $F(1, 244) = 1.68, p = 0.20, \eta_p^2 = 0.007$ .

Table 2  
Means and Standard Deviations (in Parentheses) for Item Means of Misconceptions, Correct Beliefs

	Misconceptions	Correct beliefs
Shanghai		
Male	0.84 (0.16)	0.92(0.09)
Female	0.75 (0.22)	0.89(0.11)
Guangzhou		
Male	0.71 (0.24)	0.86(0.15)
Female	0.72 (0.23)	0.91(0.12)

The ANOVA on *correct beliefs* revealed no significant main effects of gender,  $F(1, 244) = 0.21, p = 0.89, \eta_p^2 = 0.000$ , and of city,  $F(1, 244) = 1.30, p = 0.26, \eta_p^2 = 0.005$ . Unexpectedly, a significant interaction between sex and city was found,  $F(1, 244) = 5.80, p < 0.05, \eta_p^2 = 0.023$ . Post-hoc test revealed a significant city difference for males,  $t = -2.25, p < 0.05$ , but not for females,  $t = 1.18, p = 0.24$ , indicating male students in Shanghai being more knowledgeable in *correct beliefs* than those in Guangzhou.

#### Various reactions toward PWA

We examined various reactions toward PWA including affective feelings, global attitude, discomfort of contact with PWA, perceived responsibility and support of coercive policies. Factor analysis on the five affective feeling items revealed two underlying factors, positive affection and negative affection, with the former loaded on disgust ( $a_{11} = 0.94$ ), angry ( $a_{21} = 0.69$ ), and fear ( $a_{31} = 0.77$ ) and the latter loaded on pity ( $a_{12} = 0.69$ ) and sympathy ( $a_{22} = 0.56$ ). The two factors accounted for 56.67% variance of the observed variables. To simplify the analyses, three negative affections were averaged across items to form an

index of negative affection (NA) and two positive affections were averaged to form an index of positive affection (PA), high score meaning strong affective feelings. Mean scores were used as the indexes of the discomfort of contact with PWA, perceived responsibility and supportive of coercive policies scales, with high score representing stronger negative reactions. Alpha coefficients for the three scales were 0.73, 0.91 and 0.74, respectively. Their means and standard deviations as well as correlations among them were presented in Table 3. From Table 3 we can see that positive affection is not correlated with any other reactions. However, the remaining reactions were significantly correlated with each other.

*Affective feelings toward PWA* Overall, the mean scores of PA ( $M = 5.23, SD = 1.16$ ) and NA ( $M = 3.17, SD = 1.39$ ) were significant above the theoretical zero points, that was 1, both  $ps < 0.01$ , which suggested surveyed college students possessed significant negative feelings but mixed with significant positive feelings toward PWA. The students expressed significantly stronger PA than NA,  $t = 17.85, p < 0.01$ . However, the correlations between PA and NA were almost zero, which suggested that possessing higher negative affections toward PWA did not mean possessing less positive affections.

We conducted two ANOVAs to examine the gender and city differences in NA and PA. The ANOVA on NA revealed a significant city difference,  $F(1,244) = 8.32, p < 0.01, \eta_p^2 = 0.033$ . College students from Shanghai expressed fewer negative feelings toward PWA. No significant gender difference was found,  $F(1,244) = 0.36, p = 0.55, \eta_p^2 = 0.001$ , and neither was the interaction,  $F(1,244) = 1.67, p < 0.20, \eta_p^2 = 0.007$ . The ANOVA on PA revealed no significant city difference,  $F(1,244) = 0.26, p = 0.61, \eta_p^2 = 0.001$ , no significant gender difference,  $F(1, 244) = 1.42, p = 0.24, \eta_p^2 = 0.006$ , and no significant interaction,  $F(1,244) = 0.28, p = 0.59, \eta_p^2 = 0.001$ .

Table 3  
Descriptive statistics for various reactions

	Positive affection	Negative affection	Attitude	Discomfort of contact	Perceived responsibility	Coercive policies
Guangzhou						
female	5.21(1.31)	3.23(1.50)	3.94(1.89)	4.47(1.40)	4.06(1.75)	2.04(1.09)
male	5.10(1.19)	3.46(1.46)	4.02(1.56)	4.28(1.31)	4.15(1.86)	2.34(1.30)
Shanghai						
female	5.37(1.00)	3.03(1.26)	4.56(1.67)	4.19(1.24)	3.34(1.30)	1.88(0.99)
male	5.10(1.11)	2.67(1.24)	4.90(1.58)	3.83(1.30)	3.38(1.62)	2.00(1.19)
Positive affection	1					
Negative affection	-0.01	1				
Attitude	0.10	-0.42**	1			
Discomfort	-0.01	0.58**	-0.64**	1		
Perceived responsibility	-0.08	0.35**	-0.25**	0.29**	1	
Coercive policies	-0.07	0.43**	-0.30**	0.43**	0.50**	1

Note. The upper part is means and standard deviations (in parentheses) and the lower part is correlations among reactions.

\*\*  $p < 0.01$

*Attitude toward PWA* Overall, the mean score ( $M = 4.29$ ,  $SD = 1.73$ ) was significantly lower than the theoretical mid-point of the scale (5.5) that represented neutral reactions,  $t = -10.97$ ,  $p < 0.01$ , which indicated that college students possessed a significant negative attitude toward PWA overall.

A two-way ANOVA was conducted to examine city and gender differences in the attitude toward PWA. There was a significant city difference,  $F(1, 244) = 10.14$ ,  $p < 0.01$ ,  $\eta_p^2 = 0.040$ , with Shanghai college students endorsing a less negative attitude than Guangzhou college students. The gender difference was not significant,  $F(1, 244) = 0.79$ ,  $p = 0.38$ ,  $\eta_p^2 = 0.003$ , and neither was the interaction,  $F(1, 244) = 0.33$ ,  $p = 0.57$ ,  $\eta_p^2 = 0.001$ .

*Other reactions toward PWA* The overall mean scores for perceived responsibility ( $M = 3.74$ ,  $SD = 1.65$ ) and for coercive policies ( $M = 2.05$ ,  $SD = 1.13$ ) were significant below the theoretical mid-point 4 ( $t_1 = -27.23$ ,  $t_2 = -2.46$ , both  $ps < 0.05$ ), which suggested that college students did not think it was PWA's responsibility to contract AIDS and did not support coercive policies upon PWA.

Nevertheless, the mean score for discomfort of contact with PWA ( $M = 4.25$ ,  $SD = 1.32$ ) was significantly above mid-point 4,  $t = 2.95$ ,  $p < 0.01$ , suggesting that college students still felt discomfort when contacting with PWA.

To examine city and gender differences on these three scales, a MANOVA was conducted with these three reactions as dependent variables. Results showed a significant city effect,  $F(1, 242) = 4.15$ ,  $p < 0.01$ ,  $\eta_p^2 = 0.049$ . There were no significant gender difference,  $F(1, 242) = 2.42$ ,  $p > 0.05$ ,  $\eta_p^2 = 0.029$ , and interactions,  $F(1, 242) = 0.16$ ,  $p = 0.92$ ,  $\eta_p^2 = 0.002$ . Further univariate analysis revealed that the city difference mainly arise from discomfort of contact with PWA,  $F(1, 244) = 3.94$ ,  $p < 0.05$ ,  $\eta_p^2 = 0.016$ , and perceived responsibility,  $F(1, 244) = 11.20$ ,  $p < 0.01$ ,  $\eta_p^2 = 0.044$ . College students from Shanghai expressed less discomfort of contact with PWA and they were less likely to attribute the responsibility to PWA than those from Guangzhou. However, students from both colleges were similar in not supporting coercive policies on PWA,  $F(1, 244) = 2.69$ ,  $p = 0.10$ ,  $\eta_p^2 = 0.011$ .

### *The associations between AIDS knowledge and reactions toward PWA*

To examine how two kinds of knowledge are predictive of reactions toward PWA, we did a series of regression analyses with specific reactions as outcome variables and *misconceptions*, *correct beliefs*, city and gender as predictors. All variables were entered into the equation at one time<sup>1</sup>. The results were presented in Table 4. After controlling for city and gender differences, *misconceptions* were predictive of negative reactions but not positive reactions toward PWA, more misconceptions being

associated with more negative reactions toward PWA. In contrast, *correct beliefs* were predictive of none of the reactions. Even after controlling for knowledge about AIDS and gender, significant city differences still existed in some reactions. College students from Guangzhou expressed more negative affections and negative attitude toward PWA and attributed more responsibility of contracting AIDS to PWA. Additionally, there was a significant gender difference in support of coercive policies, with males being more likely to support coercive policies on PWA.

Table 4

*Associations between AIDS related knowledge and reactions*

Criteria	Predictors			
	Misconceptions	Correct beliefs	City	Gender
Negative affection	-0.29**	0.00	-0.13*	0.00
Positive affection	-0.00	0.08	0.05	-0.07
Discomfort of contact	-0.35**	0.11	-0.08	-0.06
Perceived Responsibility	-0.18**	0.07	-0.20**	0.04
Coercive policies	-0.28**	0.07	-0.06	0.12*
Attitude	0.24**	0.00	0.17*	0.03

Note. All numbers were standardized regression coefficients  $\beta$ s.

\*  $p < 0.05$ , \*\* $p < 0.01$ .

### Discussion

The study examined AIDS related knowledge and reactions toward PWA among Chinese college students from Shanghai and Guangzhou. We found that misconceptions and some negative reactions toward PWA were prevalent in Chinese college students and some district differences in the surveyed variables. Surprisingly, we also found that it was *misconceptions* but not *correct beliefs* that predicted negative reactions. Given the prevalence of AIDS stigma in China and its harmful impacts (e.g. Zhou, 2008; Li, et al., 2008), we believe these findings have potential implications.

Previous studies have found that fallacy of contracting AIDS by casual contact was prevalent

among college students in Hunan and Jiangsu provinces as well as in Beijing (Li et al., 2004; Huang, et al., 2005). The present study demonstrated that it was also true in Shanghai and Guangzhou. Through these findings, we could infer that misinformation of contracting AIDS by casual contact is a common phenomenon in China nowadays. New to our study was that two kinds of knowledge, *misconceptions* and *correct beliefs*, were independent of each other, indicating that knowing one of them does not necessarily mean knowing the other. This is somewhat surprising. People may have expected that fewer misconceptions is associated with more correct beliefs. However, this is not the case in our college sample. One possible reason is that two kinds of

<sup>1</sup> Preliminary analyses showed that none of the possible interactions was significant. So in the final analyses, only first-order terms were included.

knowledge have not been evenly distributed. Indeed, in our study, college students possess much more correct beliefs than misconceptions. Another possibility is that the limited range of correct beliefs restricted the correlation, because the scores on correct beliefs in the present study are very close to the up-limit (Cohen, West, Cohen, & Aiken, 2002).

In the classic book *The Nature of Prejudice* (Allport, 1979), Allport posited that ignorance constitutes an important source of prejudice. This is true in our study. Specifically, we found that it was *misconceptions* but not *correct beliefs* that were predictive of AIDS stigma, in contrast to previous findings that *correct beliefs* are important for self-preventive behavior (Fisher & Fisher, 1992). This predictive effect hold true even after controlling for city and gender differences. These findings suggest that in the efforts to prevent and control AIDS, more attention should be paid to eliminate people's misconceptions about AIDS-transmitting routes while increasing people's general knowledge about AIDS.

For the first time, the present study examined the affective reactions toward PWA in China and found surprisingly mixed feelings existing among surveyed college students. The students expressed pronounced negative feelings toward PWA; however, they also showed some strong positive feelings at the meantime. Due to lethality and infectivity of AIDS, it is quite understandable that the students possess negative feelings toward PWA. As to the positive feeling indicated by pity and sympathy, it may arise from humanism considerations. A second possibility is the special symbolic meaning of AIDS in China. Although drug use and inappropriate sex behavior are among the main routes to transmit AIDS in China, what is more notable is that a large portion of PWA has contracted HIV through commercial plasma-donation due to poverty (Wu, et al., 2004). For many Chinese students, AIDS maybe have been associated with commercial plasma-donation that is highly worth of sympathy (Weiner, 1993), which

consequently lead to students' positive feelings toward PWA to some extent. The finding that student did not attribute responsibility of contracting HIV to PWA provided evidence for this account. However, positive affection is independent of negative affections and other negative reactions toward PWA, which suggests that facilitating positive affection such as pity and sympathy toward PWA make little difference in eliminating negative reactions toward PWA such as angry, disgust and fear.

Besides negative affective feelings, some other negative reactions were also found among Chinese college students including negative attitude, discomfort of contact with PWA. Nevertheless, the surveyed college students did not think it was the PWA's responsibility for their contracting AIDS and did not support coercive policies upon PWA. According to Herek (1999), well-educated people usually possess less negative attitude toward PWA. Therefore, in addition to symbolic associations between AIDS and involuntary and non-stigmatized behaviors mentioned above, students' social status as well-educated people may also explain these findings to some extent.

A striking and consistent finding in the present study was the city differences. Compared with college students from Guangzhou, those from Shanghai showed fewer misconceptions about AIDS, expressed less negative affective feelings toward PWA, felt less discomfort of contact with PWA, and held a less negative attitude toward PWA and so on. More strikingly, even after controlling for knowledge about AIDS, college students from Guangzhou still showed significantly more negative affective feelings, showed more negative attitude toward PWA and attributed more responsibility too PWA for their AIDS. These findings may reflect the facts that AIDS epidemic is more serious in Guangdong province than in Shanghai (China Ministry of Health and UN Theme Group on HIV/AIDS in China, 2004). Nevertheless, given the limited representative of



surveyed samples, any further inferences should be cautious.

Despite of important implications of the findings, there were some limitations in this study. First, our sample was limited to the college students from Shanghai and Guangzhou, and also the sample size was relative small compared to the huge population that they belong to. Second, the items to assess AIDS knowledge were only a limited sample of all possible aspects of AIDS knowledge. Thus, they only provided us limited information on AIDS related knowledge. Keeping these limitations in mind, one should be very cautious when attempting to generalize our findings to the target population and to other AID related knowledge.

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# 中国大学生对艾滋病知识的了解以及对艾滋病患者的反应

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**摘 要** 本研究区分艾滋病知识的两个不同侧面: 对艾滋病的误解和对艾滋病的正确认识, 并第一次在中国探讨这两个不同侧面的知识对艾滋病患者的认知、情感、行为反应的不同预测作用。119 名(31 男, 88 女)来自上海、132 名(59 男, 73 女)来自广州的大学生参加了本调查。结果发现被调查的大学生: 1) 普遍对艾滋病存在误解, 即认为艾滋病可以通过日常的一般接触传染, 并且, 这种误解和对艾滋病的正确认识相互独立; 2) 都表达了对艾滋病患者的厌恶情感、与艾滋病患者接触的不舒服感; 3) 尽管如此, 但都不支持对艾滋病患者采取强制措施, 也不认为艾滋病患者感染艾滋病是他们自己的责任。研究还发现, 和来自广州的大学生相比, 来自上海的大学生对艾滋病有着更多的了解, 对艾滋病患者有着更少的负性情感、更少的消极态度、他们也更少地把感染责任归结到患者本身。特别有趣的是, 本研究发现, 对艾滋病患者的负性反应具有显著预测能力的是对艾滋病患者的误解而不是正确认识, 即误解越多, 负性反应越多。这些发现提示, 中国未来的艾滋病防治工作应该继续大力加强对艾滋病相关知识的宣传教育, 不仅要让人们知道艾滋病是通过什么途径传染的, 还要特别消除他们对艾滋病的许多误解, 从而减少或消除对艾滋病患者的许多歧视性反应, 营造一个良好的艾滋病防治环境; 同时, 中国的艾滋病防治还应该注意地区差异, 不同地区的防治力度和采取的策略应该和各地的实际疫情相适应。

**关键词** 艾滋病; 艾滋病患者; 误解; 责任感知; 强制性措施

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