

# HIV-Related Stigma and Discriminatory Attitudes among a Semi-Urban Population

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## Abstract

**Background:** Stigma and discriminatory attitudes (SDAs) have a negative impact on human immunodeficiency virus (HIV) prevention, testing, and treatment as well as on family and social networks. There is a lack of understanding about HIV-related SDAs among people living outside large cities. This study is aimed to determine the level of HIV-related SDAs among a semi-urban population in Malaysia and to compare the SDA results among people with different sociodemographic characteristics.

**Methods:** A sample of 106 respondents was generated by convenience sampling during the screening campaign in Alor Gajah, Malaysia. Data collection was carried out based on a pre-tested questionnaire via face-to-face interviews.

**Results:** More than half of the respondents (62.3%) thought that an HIV-positive teacher should not be allowed to continue teaching at school; 81.1% were unsure or were unwilling to care for their family member with AIDS at home; 81.2% thought children with HIV/AIDS should not continue to be raised in families; and 77.3% thought they would not reveal if a family member had HIV/AIDS.

**Conclusion:** Priority should be given to evidence-based interventions to reduce HIV-related SDAs. This study did not reveal any significant relationship between sociodemographic profiles and HIV-related SDAs. Therefore, further research with a larger sample size is needed to investigate the underlying causes of HIV-related SDAs.

**Keywords:** attitude, discrimination, HIV/AIDS, stigma, Malaysia

## Introduction

Reducing HIV-related stigma and discrimination attitudes (SDAs) is critical for effective HIV prevention and treatment. SDAs have a negative impact on the access of people living with HIV (PLHIV) to resources and hamper health promotion efforts (1). A recent study in Thailand showed that all forms of HIV-related SDAs were negatively associated with anti-retroviral treatment adherence among PLHIV (2). There is evidence suggesting that HIV-related SDAs have major impacts on family and the broader social networks and are associated with losing family 'face', damaging relations, and bringing shame to the family (3). A cross-sectional study in Ethiopia found a significant association between higher levels of HIV-related SDAs and higher levels of depressive symptoms (4). Effective SDA reduction interventions should

be based on evidence unravelling a context-specific needs assessment of sociodemographic and cultural aspects associated with HIV/AIDS, along with collaborative planning (5). It is argued that the social and economic background may influence people's behaviour with respect to HIV/AIDS stigmatisation and discrimination (6).

Although a number of articles concerning HIV-related SDAs in Malaysia have appeared in the recent literature, most were focused on specific population groups, such as healthcare providers (7–9) and prisoners (10). There is still a limited understanding of attitudes towards PLHIV in multi-cultural and multi-ethnic communities beyond large cities. This study set out to determine the level of HIV-related SDAs and to compare the SDA results among people with different sociodemographic characteristics.

The study was set among a semi-urban population located in Alor Gajah, Malaysia.

## Materials and Methods

### *Study design, sample size, and sampling method*

A cross-sectional study was carried out among 106 participants. Participants were conveniently selected and interviewed during a screening campaign within the framework of the District Health programme by year three medical students. To be eligible for the survey, participants had to be Malaysian, aged 18 years and above, and residents of the Alor Gajah district in Malacca state. All ethical requirements, including verbal informed consent and confidentiality of responses, were stringently ensured throughout the study.

### *Data collection method and instrument*

Information was collected using face-to-face interviews based on a pretested close-ended questionnaire. Pretesting was done in a similar setting on adults falling in the same age brackets. The questionnaire consisted of two sections: (i) sociodemographic characteristics, which included sex, age, race, educational level, and marital status; (ii) attitudes towards PLHIV. The scale for attitude measurement consisted of 10 statements adapted from the demographic and health survey (11), which included perceptions towards PLHIV. Scoring was based on a 5-point Likert-type scale ranging from 1 (strongly disagree) to 5 (strongly agree). Based on an interpretation of the underlying meanings, eight items that seemed to probe similar underlying latent constructs and indicated HIV-related SDAs were grouped together. Their total score ranged from 8 to 40, with higher scores indicating a lower level of stigmatising attitudes (or positive attitudes) towards PLHIV. The scores of two items, numbers 6 and 10, were reverse coded to produce the same direction of scoring. Two items, numbers 2 and 7, had both a positive and a negative interpretation; thus, they were not included in the total score and were analysed separately.

### *Statistical analysis*

The data were analysed using SPSS for Windows version 21.0 (12). We described the variables using frequencies with percentages and means with standard deviations. We performed an independent t test and one-way analysis of variance to compare the means of SDA scores among categorical variables. With multiple linear regression, we regressed sociodemographic

variables onto the SDA score (outcome). The level of significance was taken at  $P < 0.05$  (2-tailed).

## Results

All 106 individuals who consented to participate in the survey completed the full interview. The sociodemographic characteristics of our study population ( $n = 106$ ) are contained in Table 1. There were more females (60.4%) than males (39.6%) who completed the interview. The mean (SD) age was 30.2 years (SD 11.5) (range 18–71 years); almost half of the respondents (47.2%) were aged 18–20 years, and almost half were single (48.1%). By ethnic breakdown, most of the participants were Malay (80.2%); only 17% had a university education.

Answers to the 10 attitudinal statements were collapsed into 3-point scales (agree/not sure/disagree), as shown in Table 2. Overall, the respondents scored a mean of 26.07 (SD 4.30) out of the scale range from 8 to 40 points for eight statements that characterize HIV-related SDAs. The levels of social SDAs towards PLHIV were moderate. Nevertheless, more than half (62.3%) thought that an HIV-positive teacher should not be allowed to continue teaching at school if he/she is not sick. Half of the respondents (50.9%) thought that PLHIV were responsible for bringing the disease into the community.

However, attitudes concerning family stigmatisation and symbolic interaction with PLHIV were not as favourable. The majority (81.1%) were unsure or unwilling to care for their family member at home if this person became sick with AIDS. Most thought children with HIV/AIDS should not continue to be raised in families (81.2%) and should be isolated in specialised institutions (77.3%). The majority (77.3%) thought they would not reveal if their family member had HIV/AIDS.

Our findings revealed no significant difference in the mean scores used to measure SDAs towards PLHIV according to gender ( $P = 0.96$ ), age ( $P = 0.86$ ), race ( $P = 0.84$ ) and marital status ( $P = 0.57$ ) (Table 1). Education was found to have a significant association with SDA scores ( $P = 0.02$ ), whereas respondents with a higher education level had significantly more positive attitudes towards PLHIV than those with a lower education level.

The results of the multiple linear regression analysis did not reveal any significant relationship between sociodemographic variables (the predictors) and HIV-related SDAs (the outcome) (Table 3).

**Table 1:** Scores of HIV-related stigma and discriminated attitudes by socio-demographic variables\*

Socio-demographic characteristics	Total n = 106		Stigma score	
	n	%	Mean (SD)	P
Gender				
Male	42	39.6	26.10 (3.75)	0.955
Female	64	60.4	26.05 (4.65)	
Age group				
Below 20	50	47.2	26.26 (4.43)	0.864
21-40	40	37.7	25.77 (3.76)	
41-71	16	15.1	26.19 (5.31)	
Race				
Malay	85	80.2	26.20 (4.46)	0.837
Chinese	11	10.4	26.09 (3.86)	
Indian	9	8.5	25.00 (3.61)	
Others	1	0.9	24.00 (-)	
Highest educational level				
No formal education	2	1.9	20.00 (5.66)	0.023
Primary school	7	6.6	24.86 (6.94)	
Secondary or high school	79	74.5	26.72 (3.79)	
Tertiary education	18	17.0	24.33 (4.38)	
Marital status				
Single	51	48.1	26.31 (4.34)	0.574
Married	53	50.0	25.74 (4.24)	
Divorced/widowed	2	1.9	28.50 (4.30)	

\*The means of SDA score were compared by using independent t-test (males and females) and one-way ANOVA (other categorical variables).

## Discussion

The results of this study showed that the respondents had relatively high levels of HIV-related SDAs in certain aspects of social life, family life, and direct interaction with PLHIV. A high proportion of those who wanted to keep secret the fact a family member had HIV/AIDS might indicate either feelings of shame or intentions to provide sympathy and care. Yet, the latter might reflect high public HIV-related SDAs. Perception of the respondents regarding the responsibility of PLHIV for bringing the disease into the community could be interpreted both as an HIV-related SDA and as a neutral demonstration of awareness about HIV infection dynamics. Despite the low level of agreement with the statement that PLHIV should be ashamed of themselves, the respondents were less liberal and tolerant when it came to other social attitudes, such as allowing

HIV-positive teachers to continue teaching. A possible explanation of these contradictory findings is probably the belief in punishment for irresponsible behaviours and the practice of forgiveness in Islamic teaching (13,14).

We found that SDAs concerning direct interaction with PLHIV were more discriminatory than indicators of social SDAs. This is consistent with a recent study among the general staff of a public university in Malaysia (15). However, the extent of the negative attitude towards PLHIV was higher in the present study. Thus, in our study 77.3% of the respondents thought that HIV-positive children should be isolated in specialised institutions. In contrast, Tee and Huang (15) reported that only 17.1% of the participants were of the opinion that PLHIV should be isolated from the public. Presumably, the difference in the residential status is responsible for the discrepancy between the two studies—the

**Table 2:** Distribution of respondents by degree of agreement with statements (n = 106)

Statements	Agree		Not sure		Disagree	
	n	%	n	%	n	%
I will buy food from a food stall owner knowing that he had HIV/AIDS	70	66.0	18	17.0	18	17.0
If a member of my family got HIV/AIDS I will not keep it a secret	13	12.3	11	10.4	82	77.3
I will care for my family member at home if this person became sick with AIDS	20	18.9	18	17.0	68	64.1
If the teacher at school has HIV but is not sick he/she should be allowed to continue teaching	26	24.5	14	13.2	66	62.3
If the child has HIV/AIDS but is not sick he/she should be allowed to continue attending school together with not infected children	23	21.7	19	17.9	64	60.4
People with HIV/AIDS should be ashamed of themselves	14	13.2	12	11.3	80	75.5
People with HIV/AIDS are responsible for bringing the disease into the community	31	29.2	23	21.7	52	49.1
Children with HIV/AIDS should not continue to be raised in families	86	81.1	6	5.7	14	13.2
Children aged 12-14 should be taught using a condom to avoid getting HIV/AIDS	70	66.0	18	17.0	18	17.0
Children with HIV/AIDS should not be isolated in specialized institution where they can receive proper health care services	13	12.3	11	10.4	82	77.3

**Table 3:** Regression parameters for sex, age, race, educational level, and marital status\*

Variable	Coefficient ( $\beta$ )	SE	95% CI		P value
Intercept	27.812	4.281			
Female vs. Male	- 0.214	0.916	- 2.034	1.607	0.816
At and above 20 vs Below 20	- 0.717	1.157	- 3.017	1.583	0.537
Non-Malay vs Malay	- 0.706	0.642	- 1.983	0.570	0.274
With formal education vs. No formal education	0.373	0.818	- 1.252	1.998	0.649
Married vs Single	- 0.054	0.911	1.865	1.756	0.953

\*The outcome variable was SDA score (range of score between 8 and 40). No variable is significant at p-value of less than 0.05 (2-tailed)

present study was conducted among a semi-urban provincial population while that of Tee and Huang (15) focused on an urban population of a large city. Nonetheless, there is evidence that rural people have higher SDAs than those living in urban areas (16). Further research to investigate the role urbanization plays in shaping HIV-related SDAs is needed.

Previous studies reported a significant association between age, ethnicity or/and education and SDA scores (14,15). We did not find evidence to support the importance of sociodemographic factors in understanding SDAs.

This study had the following limitations. We used convenience sampling to draw our sample, which limits the external validity of the study. The

small sample size limits the power of the study and the generalisation of the results to the population of interest. Face-to-face interviews, despite providing high rates of completion of the forms, may have led to interviewer bias in the process of data collection and encouraged respondents to give socially desired responses. Nevertheless, this study serves as an important baseline paper for future studies on SDAs in different hometown localities.

## Conclusion

The findings of this study suggest relatively high levels of discriminatory attitudes concerning the responsibility of PLHIV for immoral behaviour, family stigma and direct interaction with PLHIV. They also indicate alarmingly high levels of SDAs in relation to caring for family members with AIDS and social isolation of HIV-positive children. Consequently, the efforts aimed to support PLHIV may be jeopardised and HIV prevention, testing, and disclosure hindered. Priority should be given to evidence-based interventions to reduce SDAs among populations in different localities. This study revealed that none of the sociodemographic profiles were related to SDAs. Further research with a larger sample size is needed to investigate the underlying causes of HIV-related SDAs.

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## Conflict of Interest

None.

## Authors' Contributions

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Analysis and interpretation of the data: HL, AAM  
Critical revision of the article for the important intellectual content: AAM, AMD, AS  
Final approval of the article: AAM, AS  
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