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Gender Differences in Stigma and Community Support among People Living with HIV/AIDS in Thailand

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ABSTRACT

This study compares the levels of both stigma and community support as perceived and experienced by Thai men and women living with HIV/AIDS, and investigates individual factors, which can explain the gender differences in stigma and community support in Thailand. Data were collected from 412 members of people living with HIV/AIDS (PHA) support organizations in Bangkok and Northern Thai provinces in 2000. An assisted, self-administered survey instrument was used. The proportion of respondents who reported perceived stigma from people in their communities was significantly higher among male PHAs (46%) than females PHAs (34%). Male PHAs were significantly less likely than female PHAs to perceive community support (58% vs. 73%) and also to experience community support (15% vs. 26%). The multivariate analyses presented here indicate that much of the male disadvantage with regard to HIV-related social stigma and community support in Thailand appears largely due to differences between men and women in the sample; several of these differences are also found in the population of male and female PHAs throughout Thailand. These differences include the following: (1) male PHAs had on average more visible AIDS symptoms than females, a factor associated not only with more advanced illness but also increased stigma and less community support; (2) male PHAs were less likely than females to be widowed, a factor strongly associated with increased community sympathy and support; and (3) male PHAs in our sample were more likely than females to reside in Bangkok, which has more hostile community responses toward PHAs than Northern Thai provinces.

INTRODUCTION

AIDS-related stigma and discrimination have enormous public health significance because PHAs who perceive or experience stigma may be reluctant to disclose their HIV status, may delay testing and treatment, and avoid care and support programs (Nyblade et al 2003, Buzra 2001, Daniel and Parker 1993). It is widely reported that some groups suffer from stigma more than others, especially females, commercial sex workers, injecting drug users, and homosexuals (Nyblade et al 2005). If true, such variations have important implications for public heath programs that seek to slow the spread of the virus and to mitigate its consequences among those infected, their families, and their communities.

Female PHAs are widely assumed to be much more vulnerable to stigma than male PHAs (Nyblade 2003; De Bruyn 1992; Warwick et al. 1998). This notion is intuitively appealing because in some developing countries women are economically, culturally, and socially disadvantaged, and they lack equal access to HIV treatment, financial support, and education (UNAIDS 2000). In Thailand, however, a recent study found that female PHAs in fact reported more positive experiences with community reactions than male PHAs (VanLandingham et al. 2005). For example, 63% of female PHAs, but only 42% of male PHAs, reported experiencing support from people in their community (VanLandingham et al. 2005).

Research on HIV-related stigma among PHAs is hampered in a number of ways. First, most previous research pertaining to PHAs has focused exclusively on the negative aspects of PHA's perceptions and experiences, and has neglected potentially positive community aspects such as community support and care. It is critical to investigate both negative (stigma) and positive (community support) aspects of community-PHA

relationships if these relationships are to be better understood in the wide range of contexts in which they occur.

Second, although a variety of individual factors, such as sex, place of residence, and education have previously been studied as correlates of HIV-related stigma (Nyblade et al. 2005; VanLandingham et al. 2005; Kidanu et al. 2004), these studies only used univariate or bivariate analyses that did not take into account likely confounders. Thus, independent effects of gender and other factors on stigma remain unclear.

Third, most previous studies exploring stigma as it relates to PHAs are based on case studies or qualitative analysis, or hypothetical questions asked of non-PHA respondents about how they might react to a PHA (VanLandingham et al 2005, Nyblade et al 2003). Answers to these hypothetical questions do not always match actual behaviors (Nyblade et al 2005). Also, the widespread use of anecdotes and very small samples, often consisting of those experiencing the worst stigma, severely hamper the validity and generalizability of findings.

The recruitment of an unbiased sample of PHAs is extremely difficult, and while the data used for the VanLandingham et al (2005) paper cited above may be better than most, compositional features of the sample may help to explain some of the gender differences found. In other words, men and women PHAs may join support groups at different stages of the illness, and for different reasons. Disentangling these compositional features from a true gender effect will be a main focus of the paper.

This study specifically addresses following questions:

1. What are the levels of stigma and community support as perceived and experienced by both male and female PHAs in Thailand?
2. What factors might explain gender-based differences on the above outcomes for this population?

BACKGROUND

1) Current HIV/AIDS situation in Thailand:

The HIV prevalence rate among the adult population (age 15-49) in Thailand was 1.5 per 100 persons in 2004 (UNAIDS 2004), but infection rates vary widely by region. Rates are highest in the Northern part of the country, moderate in Bangkok and lowest in some Central, Northeastern, and Southern provinces (UNAIDS 2004). Of all AIDS cases reported since 1984, the most common route of HIV transmission is through heterosexual intercourse (88%), followed by intravenous drug use (6%), and perinatal transmission (5%) (UNAIDS 2004). Although the number of new HIV infections and HIV prevalence has consistently declined since the mid-1990s, HIV has become a “mature generalized epidemic”. Increasing numbers of new HIV infections in Thailand are now occurring within the general population, particularly among the wives and sexual partners of men who were infected from their visits to sex workers (UNAIDS, 2002).

2)Definition and types of stigma

Goffman’s definition of stigma is commonly used as a starting point for defining stigma: an undesirable or discrediting attribute that an individual possesses, thus reducing that individual’s status in the eyes of society (Goffman 1963). Researchers have categorized stigma into two types; perceived and enacted stigma (Jacoby 1994, Malcolm

et al 1998, Scrambler 1998 cited in Brown et al 2003). Perceived stigma among PHAs refers to an individual's perception of negative attitudes and experiences, and to his or her fear of discrimination because of HIV status. Enacted stigma refers to negative acts or actual experiences that result from stigma and is often used synonymously with discrimination (Scrambler 1998, Malcom et al 1998, Nyblade et al 2005). This study focuses on the first type of stigma, i.e., perceived stigma, but also includes specific measures of more concrete community responses as experienced by this study's sample of Thai PHAs.

METHODS

Data sources

Data were collected in 1999 and 2000 using an assisted, self-administered survey that included 412 members of PHA support organizations in Bangkok, and three smaller towns in northern Thailand: Lampang, Chiang Mai, and Chiang Rai. These sites were selected in part because they have experienced some of the highest HIV rates in the country. HIV prevalence among military recruits for the period November 1991 through May 1998 was 8.3% for Chiang Mai; 5.4% for Lampang; 9.4% for Chiang Rai; and 2.7% for Bangkok (Im-em 1999). A second reason is that the comparison between Bangkok and the northern areas can be helpful to illustrate key differences in how community reaction plays itself out in a mega-city versus smaller towns. Bangkok's population size was over 6 million in 2000; our three northern up-country cities had population sizes ranging between just under 200,000 (Chiang Rai) and just 400,000 (Chaing Mai) (Thailand National Statistics Office 2008).

The survey includes information on respondents' socio-demographic characteristics; perceived stigma; perceived and enacted community support; information about PHAs' AIDS-related symptoms; disclosure of HIV positive status; and a wide range of additional topics. Because questions about perceived stigma, and perceived and enacted community support were asked only of those respondents who reported that members of their community knew or suspected that they were infected with HIV, data for PHAs whose status was not known to the community were omitted from the analysis (19%). Thus, the working sample is restricted to 338 respondents who were known to be or suspected by their communities to be infected with HIV.

Sampling

Collecting data from PHAs is a very difficult task, partly due to the fact that many PHAs have been disinclined to disclose their status or to participate in research (VanLandingham, et al 2002, MEASURE Evaluation 2004, Nyblade et al 2005). Although a random probability sampling of all PHAs in Thailand is theoretically ideal, such a sampling strategy has not been feasible for a number of reasons, including difficulty of identifying PHAs and the sensitivity of the topic.

Therefore, purposive sampling procedures were used to obtain a reasonably large and diverse sample of HIV infected persons. All PHAs from principal local HIV/AIDS support groups in each city were invited to participate in the survey. Most participants were recruited and interviewed at support group meeting or activity places. A few were recruited at district hospitals, local health stations, and through personal contacts. Nearly all who were approached were willing to participate; there were only 19 refusals. More details about the sampling and recruitment procedure can be obtained from a previously

published research report (VanLandingham et al 2001). Although I believe this sampling procedure to be the best approach available to gain access to a broad range of PHAs in Thailand who are still well enough to participate in such a study, this sample is unlikely to be perfectly representative of the population of Thai PHAs. Other work suggests that male and female PHA support group participants may differ in their characteristics compared to the population of male and female PHAs in Thailand. First, although male PHAs outnumber females (UNAIDS 2004), many Thai PHA support groups contain a larger share of females than males. This may be due to the fact that most PHA support groups are dominated by health-maintenance and care-giving activities, (it is not unusual for there to be more than one HIV-infected person in a household), which are widely perceived to be the domain of women rather than men in Thailand (Del Casino, 2001). Second, female PHAs in support groups may be more in need of economic support than men (due to a loss of their husbands) but healthier (healthy enough to travel to join the groups activities) than the more general population of female PHAs in Thailand. Earlier research suggests that after husbands get sick and die, female PHAs often become aware of their HIV status and join in such support groups, even though they are still healthy. Third, PHA support group participants may have higher self-esteem than the population of PHAs, therefore are more likely to disclose their HIV status. This may be due to the fact that a majority of PHAs support group members are women and many of them have not been infected via socially stigmatized behaviors such as injected drug use, homosexual intercourse, and commercial sex, but rather infected through their husbands (VanLandingham et al 2002). Finally, individuals who are experiencing stigma may be less likely to join such groups than those who are not experiencing stigma

(VanLandingham et al. 2002). Therefore, male and female PHAs in support groups may be less likely to have perceived and experience stigma compared to a population of male and female PHAs in Thailand.

Measurement

Dependent variables:

Three dichotomous variables were selected as the main dependent variables: (1) Perceived stigma was measured by asking whether or not PHAs perceived that most people in the community generally reacted with 'disgust/fear' toward them or 'look down upon' them. Those who selected 'yes' on either 'disgust/fear' or 'look down upon' response categories were considered to be those who perceived stigma. (2) Perceived community support (a positive or neutral community reaction) was measured by asking whether or not PHAs perceived that most people in the community reacted to them in a way that was generally 'supportive', 'sympathetic', or 'no different than before'. Those who selected 'yes' on the 'supportive', 'sympathetic' or 'no different than before' response categories were considered to be those who perceived community support. (3) Enacted community support was measured by asking if PHAs observed that most people in the community generally 'helped' them. Those who selected 'yes' indicating that they had been "helped" were considered to be those who experienced community support.

I do not have an adequate measure in this study for enacted stigma. Gossip, which we do ask about, is problematic on several grounds. First, 'gossip' may be merely perceived rather than experienced. Second, distinguishing between 'gossip' and 'general talk' about a remarkable situation is difficult; HIV is a remarkable phenomenon in most

communities, and is a topic of much conversation. For these reasons, I have not included gossip as an outcome in our analyses.

Independent and control variables:

The main independent variable was sex, and control variables were (1) widowhood status, (2) age, (3) level of education, (4) place of residence and (5) presence of any current visible symptoms and disabilities including weight loss, mouth or skin rashes, difficulty moving about, inability to work, inability to leave house alone, inability to dress oneself, and inability to walk. Except for level of education, all of these variables were dichotomously coded.

A "current visible symptoms" variable was chosen as our main control variable because physical deformity is one of the main causes of stigma (Goffman 1963). A "widowhood" variable was also used as a control variable because widowed PHAs (especially female widows) tend to receive more sympathy and support from their communities compared to non-widow PHAs (VanLandingham et al. 2002). A "place of residence" variable was included based on the hypothesis that PHAs who reside in Northern small towns are more likely to perceive and experience community support, and less likely to perceive and experience stigma, than those reside in Bangkok. Other demographic variables such as "age" and "level of education" were included as standard control variables.

Analysis

Univariate analysis was conducted to compare the levels of perceived stigma, and perceived and enacted community support between male and female PHAs. Pearson's Chi-square tests (bivariate analyses) were performed to describe the unadjusted

association between the dependent and independent/control variables. Multiple logistic regression analysis was performed to estimate the net effect of sex and other socio-demographic variables on the likelihood that a PHA perceived/experienced stigma and community support. Four distinct models examined gender differences in PHA's perceived/enacted stigma and community support:

Model 1: Logit Y1 (X) = $\beta0 + \beta1(\text{sex}) + \epsilon$

Model 2: Logit Y1 (X) = $\beta0 + \beta1(\text{sex}) + \beta2(\text{symptoms}) + \epsilon$

Model 3: Logit Y1 (X) = $\beta0 + \beta1(\text{sex}) + \beta2(\text{symptoms}) + \beta3(\text{widowhood}) + \epsilon$

Model 4: Logit Y1 (X) = $\beta0 + \beta1(\text{sex}) + \beta2(\text{symptoms}) + \beta3(\text{widowhood}) + \beta4(\text{age}) + \beta5(\text{education}) + \beta6(\text{residence}) + \epsilon$

Variables were included in the models in this particular order because our primary purpose was first, to determine the size of the effect of sex (male versus female) on stigma; and second, to determine the source of any such effect, i.e., the degree to which sex differences could be explained by symptoms, marital status, and/or standard demographic factors.

A "current visible symptoms" variable was first entered in model 2 because visibility of PHA's AIDS symptoms has been shown to increase community's fear of HIV infection through casual contact (Khuat et al. 2004) and thus, visible AIDS symptoms may be a fundamental factor affecting PHA's perceived stigma and possibly their perceived and enacted community support. A "widowhood" variable was entered in model 3 because previous research suggests that widowhood is strongly associated with increased community sympathy and support (VanLandingham et al. 2004); this study aims to examine the adjusted effects of widowhood on both stigma and community

support under the condition that all respondents' AIDS symptoms are held constant. Other three control variables such as "age", "education", and "place of residence" were included in model 4 because these are common demographic control factors.

RESULTS:

Sample characteristics (Table 1)

Of the 338 respondents, there were considerably more females (71%) than males (29%) in our sample. The mean age of male and female PHA respondents were 34 years and 32 years respectively. Two-thirds of the female PHA respondents (66%) were widowed, compared to 11% of the male PHA respondents. The proportion of those who had divorced or been separated were much higher among male PHAs (16%) than female PHAs (9%). Only two percent of female PHAs were single, as opposed to 29% of male PHAs. The majority of female PHAs (91%) lived in the Northern part of Thailand, while 20% of male PHAs resided in Bangkok. More than two third (71%) of male PHAs reported they were currently having visible HIV/AIDS related symptoms or disabilities, while 52% of female PHAs reported the same.

Descriptive analysis of dependent variables (Table 2)

I found significant gender differences in both stigma and community support. The proportion of respondents who reported perceiving stigma from most people in their communities was significantly lower among female PHAs (34%) than male PHAs (46%) ($p<0.05$). Also, female PHAs were significantly more likely than male PHAs to report perceived community support (73% for females and 58% for males, $p<0.01$) and also experience community support (26% for females and 15% for males, $p<0.05$).

The unadjusted associations of control variables with perceived and enacted stigma and community support (Table 3)

The likelihood that PHAs perceived stigma was significantly higher among non-widows, those residing in Bangkok, and those with visible AIDS symptoms than among widows, those residing in Northern provinces, and those without visible AIDS symptoms ($p<0.05$, $p<0.001$, $p<0.001$, respectively). Even so, less than half of each of these sub-groups—except those living in Bangkok – reported perceived stigma as the general norm.

As expected, widows were significantly more likely than non-widows to report perceived and enacted community support ($p<0.01$ and $p<0.05$, respectively). The percentage of respondents who reported perceiving community support was significantly higher among those living in Northern provinces, compared to those residing in Bangkok ($p<0.001$). Interestingly, those with six years of education were significantly more likely than those with less than or more than six years of education to perceive community support ($p<0.001$). But again and contrary to much existing literature, the majority in each sub-category above – except for those living in Bangkok – reported perceived support, rather than perceived stigma, to be the norm.

The unadjusted associations of control variables with perceived and enacted stigma and community support by gender (Table 3-a and 3-b)

By comparing the results in table 3-a with those in table 3-b, the males in most sub-categories – except those living in Bangkok and those with six years of education – showed higher percentages of reporting perceived stigma than female respondents. For example, the percentage of respondents who reported perceiving stigma was much higher among male widows (46%) than female widows (30%). In terms of perceived community

support, almost all female respondents in each sub-category – except those living in Bangkok – showed higher percentages of reporting perceived community support than male respondents. For example, the percentages of respondents who reported perceiving community support were much higher among female widows (78%) and female northern residents (77%) than male widows (55%) and male northern residents (63%), respectively. In terms of enacted community support, the results show a similar pattern as those described in perceived community support.

Results from tables 3-a and 3-b also show some gender differences and similarities in factors associated with stigma and community support. Interestingly, the percentage of respondents who reported perceiving stigma was significantly higher among male PHAs with six years of education than male PHAs with less than or more than six years of education ($p<0.05$). However, this difference was not significant among female PHAs. Female PHAs who lived in Bangkok were significantly more likely to perceive stigma than female PHAs who lived in Northern provinces ($p<0.001$). This significant association was not found among male PHAs, although the pattern of results is the same. Presence of any current visible symptoms was significantly associated with higher likelihood of perceived stigma among both male and female PHAs ($p<0.05$ among male PHAs; $p<0.01$ among female PHAs).

The percentage of respondents who reported perceiving community support was significantly higher among female widows than female non-widows ($p<0.05$). However, this significant association was not found among male respondents. Education was significantly associated with respondent’s perceived community support among both male and female PHAs ($p<0.01$ among male PHAs; $p<0.05$ among female PHAs). Both

male and female respondents who lived in Northern provinces were more likely to perceive community support than those who lived in Bangkok ($p<0.06$ among male PHAs; $p<0.001$ among female PHAs). In terms of enacted community support, no significant results were found among either male or female respondents.

The adjusted association of independent variables with perceived and enacted stigma and community support:

Perceived stigma: (Table 4-a)

The multivariate results from Model 1 show that female PHAs were significantly less likely than male PHAs to report perceived stigma (OR=0.6, $p<0.05$). Model 2 shows that the point estimate of the effect of being a woman was to face only 71% of the odds a man would to perceive stigma; however this effect was no longer significant after controlling for the presence of any visible AIDS symptoms, which is highly significant. The point estimates in Model 3 still suggest that female PHAs were less likely than male PHAs to report perceived stigma, however the gender effect remains statistically insignificant after adding widowhood status in the model, the addition of which moves the point estimate of the sex effect closer to parity, but is itself not statistically significant. The point estimate in Model 4 suggests that the gender effect completely disappears after including the three control variables. Model 4 also indicates that PHAs with any visible AIDS symptoms were 2.4 times more likely than PHAs without any visible AIDS symptoms to report perceived stigma, after controlling for other variables ($p<0.01$). PHAs who lived in Northern provinces were less likely to report perceived stigma than PHAs who lived in Bangkok (OR=0.3, $p<0.01$).

Perceived community support (positive or neutral community reaction): (Table 4-b)

The pattern of results in table 4-b mirror those in 4-a. Model 1 shows that female PHAs were 1.9 times more likely than male PHAs to report perceived community support ($p<0.01$). The point estimate in Model 2 still suggests that female PHAs were more likely than male PHAs to report perceived community support, and this gender effect remained statistically significant and similar in magnitude after controlling for the presence of any visible AIDS symptoms (OR=1.8, $p<0.05$). Model 3 shows that the point estimate of the effect of being a woman was to enjoy 139% of the odds a man would to perceive community support; however this gender effect was no longer significant after adding widowhood status in the model. Model 3 also indicates that widows were 1.7 times more likely than non-widows to report perceived community support ($p<0.05$). The point estimates in Model 4 suggest that the gender effect remains statistically insignificant after including the three control variables; again, the effect approaches parity here. Model 4 also suggests that PHAs with six years of education were significantly more likely to report perceived community support than PHAs with less than six years of education (OR=2.3, $p<0.05$). In addition, PHAs who lived in Northern provinces were 3.9 times more likely to report perceived community support than PHAs who lived in Bangkok ($p<0001$).

Enacted community support (being helped): (Table 4-c)

The pattern of results in Table 4-c is similar to those in Tables 4-a and b. Model 3 shows that the association between enacted community support and gender did not persist after controlling for both presence of any visible AIDS symptoms and widowhood status. Model 4 shows that the point estimate of the effect of being a women was to experience

133% of the odds a man would to experience community support, after including all control variables; however this effect of female advantage remains statistically insignificant.

DISCUSSION:

The multivariate analyses presented here indicate that much of the female advantage with regard to HIV-related social stigma and community support in Thailand appears due to compositional features of the sample and that factors more directly associated with gender are also important. Regarding perceived stigma, since women PHAs in this sample are less advanced in their illnesses, they exhibit fewer symptoms, and obvious symptoms are associated with more perceived stigma. Similarly for residence, men PHAs in the sample are more likely to live in Bangkok than upcountry, and Bangkok residence is associated with more perceived stigma than is upcountry residence.[1]

Women PHAs are more likely than men to perceive community support in large part because women are more likely to be widowed than men, and widow status seems to generate substantial sympathy with respect to other marital status, at least for women. As above, men PHAs in the sample are more likely to live in Bangkok than upcountry, and Bangkok residence is associated with less perceived community support than is upcountry residence.[2]

As is the case for perceived stigma and perceived community reaction, women's advantages over men in experiencing enacted community support become statistically insignificant in the presence of factors that control for visible symptoms, marital status, age, socioeconomic status, and residence; but none of these control and explanatory variables are statistically significant covariates of enacted community support.[3] Also, the

point estimate in the final model, albeit statistically insignificant, still suggests that the odds of women experiencing enacted community support are about a third higher than for men.

In summary, compositional differences related to the fact that husbands tend to become infected earlier than wives – resulting in our female respondents more likely to be widowed and less likely to have advanced symptoms than our male respondents – and related to the fact that our male respondents are more likely than are our female respondents to live in Bangkok – a less sympathetic environment than upcountry[4] -- explain some but not all of the advantages women have over men with regard to HIV-related stigma, perceived community support, and enacted community support for this sample of HIV infected adults in Thailand. That much of this disadvantage for men appears due to compositional differences makes them neither inconsequential nor independent of gender dynamics that work against men. Earlier infection during the pre-ARV era and a higher likelihood of visible symptoms condemn many men to more stigma and less support than would otherwise have been the case. Stated differently, the fact that so many of the early cases of HIV in Thailand were male – and were occurring before the general population understood how one does and does not contract it, and before the widespread availability of treatment – undoubtedly resulted in many of these early male PHAs having a much rougher experience with HIV-related community reaction than subsequent waves, which included many more women.

Some of these advantages for women appear to be more directly related to gender stereotypes. For example, being widow confers advantages for perceived (and perhaps enacted) community support for women but not for men. This likely reflects community

awareness of a common pattern of married women becoming infected by their husbands, who became infected earlier in their lives (Songwathana et al 2001, Dane 2002); women are therefore often considered to be “innocent victims” (Buckley 1997). While activists have experienced more success in combating stereotypes that serve to “blame the victim” for HIV positive gay men, less progress has been made in fostering more sympathy and support for HIV-positive heterosexual men.

The majority of our PHA respondents report positive or neutral community reaction to their HIV status; and male PHAs face more problem than female PHAs. These results strongly suggest that generalizations and assumptions about the ubiquity of stigma and discrimination against PHAs; and about disproportionate suffering among female PHAs relative to men both need to be re-examined and subjected to more rigorous empirical investigations than have previously been employed. Much of the existing research on AIDS-related stigma has been hampered by a number of methodological shortcomings (VanLandingham et al. 2005), and by preconceived notions regarding gender and stigma. Population-based research on stigma should become more feasible since expanding availability of treatment provides incentives for PHAs to be more open about their serostatus.

The study’s samples from PHA support group members are unlikely to be perfectly representative of all PHAs in Thailand. Although multivariate models controlled for the socio-demographic characteristics of the study’s sample, this would not necessarily completely resolve issues of potential selection bias in the sample. The study results are strictly illustrative of the male and female PHA support group participants, but also provide more general insights into the dynamics between socio-demographic factors

(especially gender) and stigma and community support among PHA support group members in the study areas.

Future stigma reduction and support programs for PHA support groups in Thailand need to be focused on the sub-populations that are male, non-widowed, living in Bangkok, and have visible AIDS symptoms.

Table 1: Socio-demographic characteristics of participants by gender

Males (n=98)		Females (n=240)		Total (N=338)		
Items	**N**	**%**	**N**	**%**	**N**	**%**
Age		Mean=34.2 (20-69)		Mean=31.6 (17-52)		Mean=32.3 (17-69)
Sex						
Male		98				29.0
Female		240				71.0
Marital Status						
Single	28	28.6	4	1.7	32	9.5
Currently married	43	43.9	55	22.9	98	29.0
Divorced or separated	16	16.4	22	9.2	38	11.2
Widowed	11	11.2	159	66.3	170	50.3
Place of residence						
Bangkok	20	20.4	22	9.2	42	12.4
Northern Provinces[5]	78	79.6	218	90.8	296	87.6
Level of education						
Less than 6 years	44	44.9	90	37.5	134	39.6
6 years	25	25.5	105	43.8	130	38.5
More than 6 years	29	29.6	45	18.8	74	21.9
Presence of any current visible symptoms[6]						
No	28	28.6	116	48.3	144	42.6
Yes	70	71.4	124	51.7	194	57.4

Table 2: Proportions of PHAs respondents who perceived stigma, and who perceived and experienced community support by gender

Items	Male %	Female %	P value
	(n=98)	(n=240)	
Perceived stigma[7]			<0.05
Yes	45.9	33.8	
Perceived community support[8] (positive or neutral community reactions)			<0.01
Yes	58.2	72.9	
Enacted community support (being helped)			<0.05
Yes	15.3	26.3	

Table 3: Unadjusted association of independent and control variables with the likelihood of PHA's perceived stigma, and perceived and enacted community support (N=338)

Items	Perceived Stigma %	Perceived Support %	Enacted Support %
Widow Status			
Non-widow	43.5*	60.7**	17.9*
Widowed	31.2	76.5	28.2
Province			
Bangkok	66.7***	35.7***	16.7
Northern Provinces	33.1	73.3	24.0
Level of education			
Less than 6 years	41.8~	60.4***	17.2~
6 years	29.2	81.5	29.2
More than 6 years	43.2	60.8	23.0
Presence of any current visible symptoms			
No	24.3***	72.9~	22.2
Yes	46.9	65.5	23.7

Chi-square test: ~ <0.1, * < 0.05, ** <0.01, *** <0.001

Table 3-a: Unadjusted association of independent and control variables with the likelihood of PHA's perceived stigma, and perceived and enacted community support among male PHAs respondents (N=98)

Items	Perceived Stigma %	Perceived Support %	Enacted Support %
Widow Status			
Non-widow	46.0	58.6	13.8
Widowed	45.5	54.5	27.3
Province			
Bangkok	60.0	40.0~	15.0
Northern Provinces	42.3	62.8	15.4
Level of education			
Less than 6 years	47.7*	56.8**	15.9
6 years	24.0	84.0	20.0
More than 6 years	62.1	37.9	10.3
Presence of any current visible symptoms			
No	28.6*	57.1	14.3
Yes	52.9	58.6	15.7

Table 3-b: Unadjusted association of independent and control variables with the likelihood of PHA's perceived stigma, and perceived and enacted community support among female PHAs respondents (N=240)

Items	Perceived Stigma %	Perceived Support %	Enacted Support %
Widow Status			
Non-widow	40.7	63.0*	22.2
Widowed	30.2	78.0	28.3
Province			
Bangkok	72.7***	31.8***	18.2
Northern Provinces	29.8	77.1	27.1
Level of education			
Less than 6 years	38.9	62.2*	17.8
6 years	30.5	81.0	31.4
More than 6 years	31.1	75.6	31.1
Presence of any current visible symptoms			
No	23.3**	76.7	24.1
Yes	43.5	69.4	28.2

Table 4-a: Multivariate regression for outcome of PHA's perceived stigma (N=338)

	Perceived stigma			
	Model 1	Model 2	Model 3	Model 4
	Adjusted Odds Ratio	Adjusted Odds Ratio	Adjusted Odds Ratio	Adjusted Odds Ratio
Sex				
Male				
Female	0.600*	0.708	0.826	1.066
Current visible symptoms				
No				
Yes		2.608***	2.541***	2.416**
Widow Status				
Non-widow				
Widowed			0.747	0.736
Age				
Continuous				1.037
Level of education				
Less than 6 years				
6 years				0.794
More than 6 years				1.109
Place of Residence				
Bangkok				
Northern Provincial				0.307**

*** < 0.001, ** < 0.01, * < 0.05 ~ <0.06

Table 4-b: Multivariate regression for outcome of PHA's perceived community support (N=338)

	Perceived Community Support (positive or neutral community reaction)			
	Model 1	**Model 2**	**Model 3**	**Model 4**
	Adjusted Odds Ratio	**Adjusted Odds Ratio**	**Adjusted Odds Ratio**	**Adjusted Odds Ratio**
Sex				
Male				
Female	1.937**	1.848*	1.390	1.119
Current visible symptoms				
No				
Yes		0.780	0.823	0.899
Widow Status				
Non-widow				
Widowed			1.747*	1.587
Age				
Continuous				0.983
Level of education				
Less than 6 years				
6 years				2.326*
More than 6 years				1.190
Place of Residence				
Bangkok				
Northern Provincial				3.935***

*** < 0.001, ** < 0.01, * < 0.05 ~ <0.06

Table 4-c: Multivariate regression for outcome of PHA's enacted community support (N=338)

	Enacted Community Support (being helped)			
	Model 1	**Model 2**	**Model 3**	**Model 4**
	Adjusted Odds Ratio	**Adjusted Odds Ratio**	**Adjusted Odds Ratio**	**Adjusted Odds Ratio**
Sex				
Male				
Female	1.969*	2.047*	1.621	1.331
Current visible symptoms				
No				
Yes		1.214	1.268	1.314
Widow Status				
Non-widow				
Widowed			1.539	1.718~
Age				
Continuous				0.967
Level of education				
Less than 6 years				
6 years				1.421
More than 6 years				1.315
Place of Residence				
Bangkok				
Northern Provincial				1.409

*** < 0.001, ** < 0.01, * < 0.05 ~ <0.06

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[1] The bivariate association between Bangkok residence and perceived stigma is statistically significant only for women. The fact that it is insignificant for men is likely a function of the smaller number of men in the sample – the point estimates suggest a similar disadvantage for Bangkok residence for men.
[2] The bivariate association between Bangkok residence and perceived community support is statistically significant only for women. The fact that it is insignificant for men is likely a function of the smaller number of men in the sample – the point estimates suggest a similar disadvantage for Bangkok residence for men.
[3] Widowhood is of borderline significance in this model.
[4] The male disadvantage related to Bangkok residence may be due to the anomie of Bangkok; or perhaps that selection factors predispose men in our sample to both stigma and Bangkok residence. If a non-trivial fraction of our male

Bangkok residents were gay (Bangkok is a major destination for gay men in Thailand), they would face the double jeopardy of being both gay and HIV infected, a jeopardy that would surely accentuate stigma for them and a feature that would be missed by our model's assumption of "no difference" between the stigma-related characteristics of male and female Bangkokians.

[5] Northern provinces include Chiang Mai, Chiang Rai, and Lampang.

[6] Visible symptoms include 1) weight loss, 2) mouth or skin rashes, 3) difficulty moving about, 4) unable to work, 5) unable to leave house alone, 6) unable to dress myself, or 7) unable to walk.

[7] Those who reported that general reactions of most people in their communities to you were "disgust", "fear", and/or "looked down upon".

[8] Those who reported that general reactions of most people in their communities to you were "supportive", "sympathetic" and/or "no difference than before"

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