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Correlating social factors and HIV-related stigma of rural residents in Sorsogon, Philippines

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Abstract
With an alarming increase of Human Immunodeficiency Virus (HIV) cases in the Philippines, one key to prevention is eliminating the HIV-related stigma. The study attempted to determine the level of HIV-related stigma of the residents in a predominantly rural province, Sorsogon. Further, it also explored on the correlation of the demographic factors with the level of their HIV-related stigma. This cross-sectional and descriptive study was participated by 384 residents, chosen through systematic random sampling. It adopted Genberg *et al*'s *Stigma and Discrimination Scale*, as its survey instrument. Results revealed that the residents' level of HIV-related stigma is moderate. They believe that persons living with HIV (PLHIV) are not cursed or punished and must be treated fairly, but they remain uncomfortable associating with PLHIV and feel that discrimination against them exists. Using Spearman rho, education level and marital status displayed significant correlation with HIV-related stigma among all other factors. The study recommends intensive community-based awareness programs initiated by the local government, involving the less educated adults, out-of-school youths, and the males as target beneficiaries.

Keywords: HIV, HIV-related stigma, demographic factors, rural residents, Sorsogon

Introduction

According to United Nations, Philippines faces an alarming increase of HIV cases from 2008 onwards, compared to other countries in Asia and the Pacific (Geronimo, 2016) [6]. As of June 2018, there are 56,275 reported cases of HIV in the country (DOH, 2018) [1, 3]. According to Epidemiology Bureau of the Department of Health, there are 31 cases reported per day. While in 2009, 2011, and 2013, there are only 2, 7, and 13 cases reported per day respectively (DOH, 2018) [1, 3]. The concentration of these cases is in the highly urbanized cities like Metro Manila, Metro Cebu and the cities in Calabarzon area. Relatively, cases in the countryside or in the rural areas, like Sorsogon, are still low prevalent. However, similar to urbanized cities, the HIV cases in the countryside also follow an increasing pattern. In Sorsogon, from 11 reported cases of HIV in 2014, there are 74 reported cases in 2017 (Barcia, 2017) [2] and an addition of 26 cases in 2018 (Arguelles, 2018) [1].

Sorsogon, a predominantly rural province with high poverty incidence rate, is included in the top 20 poorest province in the country. It is located in the southernmost part of the Luzon island, which makes it as the major entry point from the southern islands in the country for those traveling by land. Tourism is also one of the main sources of the local governments' income. Given its geographical and economic circumstances, the rise of HIV cases is a clear and present danger.

One key factor that perpetrates the spread of HIV infection is the prevailing stigma towards HIV. The stigma is the negative social attitude and behavior of or towards people living with the illness. It is the perception of fear and shame and the experience of prejudice due to having the HIV infection or perceived to having it (Tomaszewski, 2012) [13]. In studies conducted in different Asian countries, majority showed their embarrassment of having the HIV infection and majority found it uncomfortable living together with person living with HIV (PLHIV) (Lata & Singh, 2015; [7] Sullivan *et al*, 2010 [12]; Malleshappa, Krishna, & Shashikumar, 2012) [8]. Understandably, HIV-related stigma is a result of poor knowledge of the illness, particularly on its transmission mode, etiology and prevention. According to Tomasszewski (2016), stigma towards HIV deters people from taking preventive actions, such as getting tested and submitting into treatment. Thus, when it is prevalent, more people will be at risk. In an overview report of HIV Stigma Index in the Pacific region, it said that HIV-related stigma continues to exist and it affects the lives of people afflicted with HIV and the people living with them. And with the prevalence of stigma, discrimination makes it difficult to treat the HIV epidemic despite the medical and scientific progress (Fiji Network for People Living with HIV, 2018) [4].

HIV cases are far more prevalent in the highly urbanized cities compared to the provinces in the countryside. Nevertheless, HIV cases in the rural areas are continuously rising in the recent years. Thus, this study attempted to understand the level of HIV-related stigma in the countryside, like Sorsogon. Understanding the level of stigma helps the community to determine the needed intervention programs in order to reduce or eliminate the said stigma. Moreover, the study also explores on the influence of demographic factors in the level of HIV-related stigma. In the Philippines, the cases of HIV are getting younger and are far more vulnerable with males. Males comprise 94% of HIV cases and the younger age group, that is, 34 years old and below, comprised of 80% of cases (DOH, 2018) [1, 3].

Objectives of the Study

The study aimed to determine the level of HIV-related stigma by the residents in the province of Sorsogon. It also tested whether there is a significant relationship between the

level of HIV-related stigma and the social factors such as age, sex, marital status, education level and income.

Materials and Methods

The study employs cross-sectional descriptive quantitative design. The research locale was in Sorsogon province, a predominantly rural province in the Bicol Region of the Philippines. Residents from all the 15 towns and one city of the province, who were of legal age and resident for the last five years, were the participants in the study. Two *barangays* (villages) were randomly chosen from each town/city. Using 5% confidence interval, 384 respondents were drawn as samples and were chosen through systematic random sampling with a random start. The total sample (N=384) was proportionately divided according to the barangay's population. The survey distribution randomly starts from among the barangay landmarks—barangay hall, auditorium, chapel and elementary school. The distribution follows two household intervals and right direction method.

The study utilized a survey questionnaire, which has two parts: the demographic questions (which are age, sex, marital status, income, and education level) and the 22-item *Stigma and Discrimination Scale*, which was developed by Genberg *et al* (2008) [5] in his study, *Assessing HIV/AIDS stigma and discrimination in developing countries*. In the 22 statements of the Stigma and Discrimination Scale, respondents chose from a four-point Likert scale—strongly disagree, disagree, agree, and strongly agree. To interpret the responses, they were scored 1 to 4 on negatively-framed questions (strongly disagree = 1, disagree = 2, agree = 3, strongly agree = 4), while positively-framed questions were reversely scored. Scores were summed up to get the mean score. Mean range of 1.00–1.59, 1.60–2.19, 2.20–2.79, 2.80–3.39, and 3.40–4.00, were interpreted respectively as very high, high, moderate, low, and very low level of HIV/AIDS stigma.

During the data gathering, respondents were first asked if they have heard, seen or read about HIV and/or AIDS. Those who expressed their unfamiliarity with either of the terms were not asked to proceed with the *Stigma and Discrimination Scale*; only demographic data were taken from them. Data gathering was conducted in March-May of 2018.

Ethical considerations were strictly observed during data gathering by informing respondents of the survey's purpose and objectives, asking them to voluntarily participate, and informing them that confidentiality and anonymity are practiced.

Level of HIV-related stigma was obtained using descriptive statistics such as mean & SD. Correlation of social factors and the level of HIV-related stigma were explored using the bivariate *Spearman rho*. Significance level of >5% was observed.

Results and Discussion

A. Profile of the respondents

Of the 384 respondents, 357 completed the survey and the 27 did not complete the survey as they expressed unfamiliarity with the terms HIV and/or AIDS, which indicates a familiarity rate of 93%. It can be observed that HIV and AIDS are commonly known even in rural areas.

Table 1 displays the profile of the actual respondents in the study. Mean of age is 36 yrs old and the mode is the age group 25-34. Sex is equally represented as quota sampling was observed in this factor. The mean and mode of residents' education level is high school graduate. The families earning below 10,000 per month, which can be considered as low-income families, are the mean and mode of respondents' income level.

Table 1. Profile of the respondents

		N	%
Age	18 – 24	99	26
	25 – 34	104	27
	35 – 44	78	20
	45 – 54	55	15
	55 – 64	32	8
	65 and above	18	4
Sex	Female	195	51
	Male	187	49
Marital	Single	152	40
Status	Married/Cohabitating/Widowed/Separated	228	60
Education	Elementary Level	8	2
Level	Elementary Grad	35	9
	High School Level	80	21
	High School Grad	99	26
	College Level	92	24
	College Grad	64	17
	Did not attend school	1	0
Income	Less than 1,000 / mo	38	10
	1,000 – 5,000 / mo	98	26
	5,000 – 10,000 / mo	153	40
	10,000 – 50,000 / mo	49	13
	Over 50,000 / mo	5	1

B. HIV-related stigma of the residents

Table 2 shows the level of the residents' HIV-related stigma by presenting the mean score, SD and its interpretation. In general, respondents' HIV-related stigma fell on a moderate level (M=2.28, SD=0.32). It implies that although the stigma level is not high, it remains prevalent on a moderate level.

Among all items in the *Stigma and Discrimination Scale*, "*people who have HIV/AIDS are cursed*" (M=1.52, SD=.689) has the lowest level of HIV-related stigma, followed by "*people living with HIV/AIDS should be treated similarly…*" (M=1.67, SD=.790) and "*people living with HIV/AIDS deserve to be punished*" (M=1.72, SD=.694). It indicates that residents are aware that PLHIV are not cursed or punished, and must be treated fairly. Majority are sympathetic to the plights of PLHIV. In rural southern India, residents also expressed sympathy to PLHIV (Malleshappa *et al*, 2012) [8]. On the other hand, residents are aware that discrimination towards PLHIV remains. "*People who have HIV/AIDS face verbal abuse"* (M=3.09, SD=.766)*, "people living with HIV/AIDS face rejection from their peers*" (M=2.91, SD=.732), and "*people living with HIV/AIDS face neglect from their family*" (M=2.78, SD=.668), obtained the highest stigma level. This implies that despite the positive attitude shown, residents feel that PLHIV continues to experience rejection and abuse from their community, family and peers.

Table 2. Level of HIV-related stigma of the residents

	Mean	SD	Level of HIV-related Stigma
Shame and Blame factor			
1. People who have HIV/AIDS are cursed.	1.52	.689	Very low
2. People living with HIV/AIDS deserve to be punished.	1.72	.694	Low
3. People with HIV/AIDS are disgusting.	2.01	.732	Low
4. Families of people living with HIV/AIDS should be ashamed.	2.03	.762	Low
5. It is reasonable for an employer to fire people who have HIV/AIDS.	2.14	.789	Low
6. People living with HIV/AIDS should be ashamed.	2.18	.822	Low
7. People who have HIV/AIDS deserve compassion.	2.21	.739	Low
8. A person with HIV/AIDS should be allowed to work with other people.	2.23	.757	Moderate
9. People with AIDS should be isolated from other people.	2.34	.802	Moderate
Discrimination factor			
10. People with HIV should be allowed to participate fully in the social events in this community.	2.33	.723	Moderate
11. People who are suspected of having HIV/AIDS lose respect in the community.	2.57	.736	Moderate
12. People living with HIV/AIDS face physical abuse.	2.67	.818	Moderate
13. People living with HIV/AIDS face rejection from their homes by their families.	2.72	.798	Moderate
14. Most people would not buy vegetables from a shopkeeper or food seller that they knew had AIDS.	2.74	.788	Moderate
15. People want to be friends with someone who has HIV/AIDS.	2.77	.679	Moderate
16. People living with HIV/AIDS face neglect from their family.	2.78	.668	Moderate
17. People living with HIV/AIDS face rejection from their peers.	2.91	.732	High
18. People who have HIV/AIDS face verbal abuse.	3.09	.766	High
Equity factor			
19. People living with HIV/AIDS should be treated similarly by health care professionals as people with other illnesses.	1.67	.790	Low
20. People with HIV/AIDS do not deserve any support.	1.73	.744	Low
21. People who have HIV/AIDS should be treated in the same way as everyone else.	1.86	.760	Low
22. People with HIV/AIDS should not have the same freedoms as other people.	1.92	.898	Low
Total Ave	2.28	.320	Moderate

The 22-item *Stigma and Discrimination Scale* can be divided into three factors—*Shame and Blame*, *Discrimination*, and *Equity* as displayed in Table 2. Examining the *Shame and Blame* factor, it can be observed that majority of the statements are having low levels of HIV-related stigma. It had the lowest level of stigma when they strongly disagreed to the statement, PLHIV are cursed. Further, they also disagreed on the statements, PLHIV deserved to be punished and PLHIV are disgusting. It indicates that residents know that PLHIV are not entirely to be blamed of their misfortunes. Similar result showed in rural China where majority feel that PLHIV are not to be blamed with the disease (Sullivan *et.al.*, 2010) [12] However, despite the compassion shown by the residents, there remains reservation on associating with PLHIV. The statements, *PLHIV should be isolated from other people* (M=2.34, SD=.802) and *a person with HIV should be allowed to work with other people* (M=2.23, SD=.757) obtained a moderate level of stigma among the Shame and Blame factor. It means that although residents do not blame the PLHIV, but there remains a feeling of discomfort living together with them. Sri Lankans, despite their value of fairness towards PLHIV, had displayed fear of living together with PLHIV, such as sharing a room or toilet with them (Navaratna *et al*, 2015) [10]. Chinese from the rural area (Sullivan, 2010) [12] and youths from Palestine (UNICEF, 2011) also displayed fear of sharing food with PLHIV; and Indians from the rural south would not risk their children share classroom with PLHIV (Malleshappa *et al*, 2012) [8].

Among the three factors, the *Discrimination* factor held the highest level of HIV-related stigma as it ranges from moderate to high. It demonstrates that residents seriously feel that discrimination exists and that rejection, abuse, and neglect are experienced by PLHIV. Although, they haven't personally witnessed any abuse or discrimination against PLHIV, they have the perception that it exists in their community.

On the other hand, the *Equity* factor held the lowest stigma among the other factors. It exhibits the residents' positive attitude towards PLHIV; residents highly feel PLHIV should be supported and treated fairly. In a rural province of Sri Lanka, residents also expressed equal and fair treatment of PLHIV (Navaratna *et al*, 2015) [10].

C. Correlation of HIV-related stigma and social factors

Table 3 presents the correlation between the demographic factors and the level of HIV-related stigma. Using the bivariate Spearman rho test, the level of HIV-related stigma of the residents displayed a significant relationship with the demographic factors, *education level* (***r***s(353)=-.253, ***p***=.000), and *marital status* (***r***s(354)=.161, ***p***=.002). On the other hand, *age*, *sex*, and *income* were not found to have significant relationship with the level of HIV-related stigma. It indicates that as the *education level* increases and being *single,* the level of HIV-related stigma decreases. Further, results also imply that the level of HIV-related stigma is not influenced by *age* (***r***s(355)=.033, ***p***=.532), *sex* (***r***s(355)=-.015, ***p***=.782), and *income* (***r***s(318)=-.033, ***p***=.554).

The influence of education in the level of HIV-related stigma is comprehensible and logical. Those with higher education level have a better understanding of the disease and accordingly would have a lower stigmatizing attitude. Sullivan *et al*, (2010) [12] supports this contention in his study in rural China, when he found that those with higher educational attainment have the higher the awareness and the lesser the stigmatizing attitude towards PLHIV. Malleshappa *et al* (2012) [8] also found that those with less than secondary education had more discriminatory attitude

towards PLHIV than those with secondary education.

In the case of marital status, it can be observed that unmarried residents have a lower HIV-related stigma level. This finding may seem similar to a Nigerian HIV awareness survey when unmarried residents have higher HIV awareness than the married residents (REACH, 2010) [11]. This marital status and stigma level relationship may be attributed to the open-mindedness of unmarried adults. More unmarried adults from the rural areas are exposed to different ideologies and beliefs, than those married adults who are more confined in the house or workplace.

Table 3. Correlation between social factors and the level of HIV-related stigma

		Mean	SD	*Rs*	*P*
Age	18 – 24	2.26	0.286	.033	.532
	25 – 34	2.26	0.330		
	35 – 44	2.33	0.288		
	45 – 54	2.27	0.335		
	55 – 64	2.20	0.405		
	65 and above	2.49	0.317		
Sex	Female	2.28	0.335	-.015	.782
	Male	2.27	0.309		
Marital	Single	2.21	0.306	.161	.002*
Status	Married/Cohabitating/Widowed/Separated	2.32	0.325		
Education	Elementary Level	2.39	0.172	-.253	.000*
Level	Elementary Grad	2.35	0.338		
	High School Level	2.33	0.289		
	High School Grad	2.26	0.323		
	College Level	2.09	0.292		
	College Grad	2.09	0.331		
	Did not attend school	2.35	-		
Income	Less than 1,000 / mo	2.32	0.250	-.033	.554
	1,000 – 5,000 / mo	2.24	0.340		
	5,000 – 10,000 / mo	2.33	0.314		
	10,000 – 50,000 / mo	2.20	0.364		
	Over 50,000 / mo	2.29	0.279		

*significant at >.05 level

Age and sex are the two social factors that have shown no significant relationship with HIV stigma level. This non-significance, however, is disturbing considering the fact that the diagnosed HIV cases in the Philippines are getting younger and the huge majority are males. Ages 25-34 are the most prevalent age group, followed by ages 15-24, and they comprised about 80% of all HIV cases. Males are also the far more vulnerable sex as they comprised 94% of HIV cases in the Philippines, particularly those who practice male-to-male sex (DOH, 2018) [1, 3]. Thus, being the most vulnerable demographics, the males and the younger generation should need to have a much lower stigma level, in order to avert the increase of the HIV cases in the country.

Conclusion and Recommendation

The foregoing discussions of results conclude that residents' level of HIV-related stigma remains prevalent; although it is no longer viciously rampant, it exists on a moderate level. Residents shown sympathy towards PLHIV, but remain uncomfortable associating with them. Also, they feel that discrimination against PLHIV remains prevalent. Furthermore, although age, sex and income were not found to significantly correlate, education level and marital status have displayed significant relationship with the level of HIV-related stigma. It means that as education level increases and being unmarried, the HIV-related stigma also decreases.

In the light of the findings, the study recommends that community-based awareness campaign should aggressively continue, particularly in the rural areas, as it remains the most effective way to immensely reduce the HIV-related stigma. The local government and the rural health units must take the initiative in carrying out HIV/AIDS education. Target beneficiaries of HIV education should focus on the less educated adults, the out-of-school youths, and the homosexual males. Sexual behaviors and HIV/AIDS prevention practices of the residents should be also explored and investigated.

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