Discriminatory Attitude Toward Vulnerable Groups in Singapore: Prevalence, Predictors, and Pattern

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Presently, there is a lack of psychological and quantitative studies in Singapore about discriminatory attitudes. This paper aimed to contribute to this aspect. However, to examine actual behavior can be difficult due to the sensitive nature of the needed data. Hence, this study approached discrimination at an attitudinal level. Six vulnerable groups were examined in this study. They consisted of people of a different race, immigrants or foreign workers, homosexuals, people living with HIV/AIDS, people of a different religion, and unmarried couples living together. Two research questions were posed: 1) What is the prevalence of having discriminatory attitude toward vulnerable groups? and 2) What are the predictors of these discriminatory attitudes? Using a sample population of 1,972 Singaporeans, descriptive analysis and binomial logistic regression analysis were conducted. Firstly, based on the results, the prevalence ranged between 10.76% to 42.46%. Singaporeans have discriminatory attitude toward vulnerable groups who can be categorized into two: the least discriminated (three groups ranging between 10.76% to 15.48%) and the highly discriminated (three groups ranging between 30.86% to 42.46%). Secondly, binomial logistic regression showed support for several significant predictors such as emphasis on the importance of religion and tradition, and employment status, depending on the model assessed. However, one pattern was observed in all the models, that a person who discriminates one group is more likely to discriminate another group. The findings were then discussed and explained within the context of Singapore.

Keywords: Singapore, stigma, discrimination, bigotry, prejudice

According to Velayutham (2017, p. 455), the topic of discrimination specially racism in Singapore is still "the white elephant in the room"; it needs to be publicly acknowledged before it can be discussed and eradicated. In fact, very few had done studies on discrimination in Singapore. Chew (2018) had observed that studies such as racism in Singapore tend to use narrative reviews and qualitative methods, and that they were done from the perspectives of history, sociology, even education. In fact, concerning quantitative studies, Chew (2018) had only managed to identify four on racial discrimination (see Chin & Vasu, 2012; Mathews, 2013, 2016; Ooi, 2005). A similar situation was observed whereby this present paper only found limited number of studies in Singapore concerning other types of discriminatory attitude.

Studies done outside of Singapore had suggested predictors of discriminatory attitude that include demographic variables (Swank, Fahs, & Frost, 2013), group differences (Kessler & Mummendey, 2001), religious belief (Kirkpatrick, 1993), and the presumed relationship between homosexuality and HIV/AIDS (Hill, 2013). Others had observed tolerance among the population when legislation protects them (Slenders, Sieben, & Verbakel, 2014). Although numerous studies on discrimination exist in literature, literature is scarce in terms of samples in Singapore.

Singapore is a country that is multiracial and multicultural with its 5.6 million people (Singapore Department of Statistics, 2018). It is also the most religiously diverse country in the world (Pew Research Center, 2014). Because of this, the government had been conducting its

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policymaking within the Chinese-Malay-Indian-Others (CMIO) framework to foster the values of tolerance and living in harmony, and promoting this approach as the cultural foundation of the nation (Lian, 2016). The government is doing this in order to ensure equality and lessen the tension between ethnic groups. This was done by having community-based self-help groups based on each ethnicity to address each of their shortcomings, subsidization of housing projects regardless of income levels, and objective standardized procedures for government employment (Moore, 2000).

Even so, racism still exists in Singapore among its population, albeit not publicly discussed and acknowledged (Velayutham, 2017). Since the late 1970s, the focus was no longer about tolerance and harmony, but the assimilation of the racial minorities – especially the Malays – into the Chinese-dominated society (Barr & Low, 2005). This was further supported by the fact that it was not the Chinese, but the Malays and the Indians of Singapore that highly perceived themselves being racially discriminated (Mathews, 2015). The same was seen on issues of religion. Although the government had been publicly promoting pluralism and harmony among the religious Singaporeans, the framework and current policy are far from perfect, and the government is still trying to improve these (Sinha, 2005).

It is not just that an internal form of racism is present, but also external form of racism or xenophobia is prevalent (Mathews, 2015). Immigrants and foreign workers are viewed by many Singaporeans as threatening employment prospect and livelihood of the locals (Gomes, 2014). While the country had always been conservative, a small number of the population had begun to lean more on the liberal side. Homosexuality is starting to become increasingly accepted and tolerated by the minority but not by the majority who still perceived this group as immoral and part of the social problems in the country (Mathews, 2015). The situation becomes worse when government and its news outlet are attributing HIV/AIDS to homosexuality (Goh, 2008). This further aggravates the stigma on those who have HIV/AIDS, exposing them to be vulnerable to discrimination. One recent study had noted the effect of homophobia (see Tan, 2018). Not only it is positively associated with discrimination toward PLHIV, but homophobia also mediated the effects of HIV/AIDS personal responsibility beliefs on discrimination toward PLHIV. It is important for the government of Singapore to prevent such stigmatization from occurring. Currently, the legal system still criminalizes homosexuality in terms of sexual relation relations; however, it is not enforced. This is done "to reflect Singaporeans' conservative attitudes while accommodating gay citizens" (Chua, Su, Tan, & Jie, 2017, p. 793).

Another vulnerable group is the unmarried couples living together or unmarried cohabitation. It has become more accepted among Singaporeans with only 44.4% stating that this is morally wrong, relative to gay marriage with 72.9% being against it (Mathews, 2015). Various factors may contribute to the increase in acceptance of unmarried couples living together. For example, one study had suggested there will be pressure among married couples to have children; hence, the only way to avoid this is by not getting married (see Jones, 2012). In Singapore, the marriage rate has been trending down, while the divorce rate is increasingly getting higher (Singapore Department of Statistics, 2018) This situation can further discourage the notion of getting married among couples (Jones, 2012). Based on the interviews of 23 Singaporeans, Jones (2012) believes that this situation is interconnected: increasing acceptance of premarital sex and cohabitation, and the dampening of the desirability of marriage. Even so, this particular group of unmarried couples living together is still viewed by many Singaporeans as being morally wrong. This makes them one of the vulnerable groups. This is especially true where being unmarried, even if with children, is not ideal and is against the norm (Wong, Yeoh, Graham, & Teo, 2004). In fact, for Singaporeans who are unmarried but with children, they are

treated as single adults when applying for public housing, which is far more difficult compared to applying as married couples (Wong et al., 2004).

Through the literature review, six vulnerable groups that tend to be discriminated were identified: people of a different race, immigrants or foreign workers, homosexuals, people living with HIV/AIDS (PLHIV), people of a different religion, and unmarried couples living together. This present study contributes to literature through a quantitative approach in examining Singaporeans and the predictors of their discriminatory attitudes toward vulnerable groups by putting forward two research questions:

Research question 1: What is the prevalence of having discriminatory attitude toward vulnerable groups in Singapore?
Research question 2: What are the predictors of having discriminatory attitude toward vulnerable groups in Singapore?

Materials and Methods

Research Design and Data Set

The research design was inspired by previous studies (Haney, 2016; Manalastas et al., 2017). However, Haney (2016) had only looked at the predictors of discriminatory attitude toward homosexuals in the United States and the Netherlands. Just like Haney (2016), Manalastas et al. (2017) focused only on discriminatory attitude toward homosexuals, but in Indonesia, Malaysia, the Philippines, Singapore, Thailand, and Vietnam. Another differences were in terms of variables; Manalastas et al. (2017) only tested sex, age, level of education, and religiosity as the predictors, while Haney (2016) analyzed all of them as well marital status, with emphasis on tradition, level of happiness, and discriminatory attitude toward several other groups as predictors. Hence, the earlier study has a more comprehensive methodology (see Haney, 2016, pp. 1363–1365) while the more recent study has a more narrower scope of methodology but more countries (see Manalastas et al., 2017, pp. 27–28). Therefore, what differentiates this present study over the other two studies (Haney, 2016; Manalastas et al., 2017) would be the inclusion of discriminatory attitude toward several other vulnerable groups as predictors, and then expanding the analysis not only just on predictors of discriminatory attitude toward homosexuals, but also toward other vulnerable groups. Therefore, in this present study, instead of only examining predictors of discriminatory attitude toward homosexuals, other vulnerable groups were also assessed: people of a different race, immigrants or foreign workers, homosexuals, people living with HIV/AIDS (PLHIV), people of a different religion, and unmarried couples living together.

This present study used Wave 6 data (2010-2014) from the World Values Survey (Inglehart et al., 2014). Haney (2016) had used Wave 5 data (2005-2008), while Manalastas et al. (2017) had used Wave 6 data (2010-2014). This present study only focused on Singapore, with data collection being done in 2012. There is no issue of the data being outdated. The importance of using this data is further strengthened by the fact data for various countries are still being used, with some researchers even used data from the previous Wave. Another argument is that the data used for this present study could be seen as highly difficult to get due to its sensitive nature. For example, in several Muslim countries, such questions were barred from the survey. While in Singapore, it was not restricted. Even so, Chew (2018) had reviewed

the topic of racial discrimination and still claimed there is a lack of literature, citing only a few studies that had been done.

The above argument for this research design and the use of this data set are well justified. There is no issue on this aspect. Hence, this research design and using the data set will provide valuable information on literature involving Singapore. The sampling had been designed to be representative of the entire adult population in Singapore. Questionnaires were completed by interviewers through a face-to-face interview with participants. More details of the methodology, as well as the data set, are available online (see Inglehart et al., 2014). Data set is available for use with proper citation. Due to using an existing data set that had obtained ethical approval as well as already being used for various scholarly studies, no new ethical approval is necessary.

Coding of Variables and Models

All coding were done using binary form of 0 and 1 with the exception of age. There were 14 variables employed in this study. Each model representing each group has one dependent variable reflecting having discriminatory attitude toward a specific vulnerable group, and 13 independent variables reflecting predictors of this discriminatory attitude. Each coding was clearly stated for replicability purpose. SPSS syntax can be provided upon request.

For dependent variable, the variable was taken from the question: "On this list are various groups of people. Could you please indicate any that you would not like to have as neighbors?" This present study focused on the following groups: people of a different race, immigrants or foreign workers, homosexuals, people who have AIDS, people of a different religion, and unmarried couples living together. However, unlike in the original study (see Haney, 2016), this present study will label the group of people who have AIDS with the term people living with HIV/AIDS (PLHIV). Respondents who did not mention a particular group were coded as 0, and those who mentioned it were coded as 1. Each variable was treated as a dependent variable where the model represented that group, while the others were treated as independent variables. For example, in Model 1 that will be examining discriminatory attitude toward people of a different race, the variable not wanting "people of a different race" as neighbors will be treated as dependent variable, while discriminatory attitude toward other groups will be treated as independent variables. However, in other models, the variable "people of a different race" will be independent variables.

Other than the above, all models will have another eight independent variables: age, sex, marital status, education, employment status, emphasizing on the importance of religion and tradition, and happiness. These variables are treated as categorical, while age is treated as ratio. For sex, "female" was coded as 0, and "male" was coded as 1. On marital status, responses "Living together as married," "Divorced," "Separated," "Widowed," and "Single" were coded as 0; while responses "Married" were coded as 1. On education, responses indicating the person did not complete secondary education were coded as 0; while responses indicating the person completed secondary education or above were coded as 1. For employment status, responses which were "Retired," "Housewife," "Students," "Unemployed," and "Other" were coded as 0; while "Full time," "Part time," and "Self-employed" were coded as 1.

For the importance of religion, responses "Not very important" and "Not at all important" were coded as 0; while "Very important" and "Rather important" were coded as 1.

On the importance of traditional values, all responses were coded as 0 with the exception of responses "Very much like me" and "Like me" which were coded as 1. For the variable level of happiness, responses "Not very happy" and "Not at all happy" were coded as 0, while responses "Very happy" and "Rather happy" were coded as 1.

In total, there were six models being tested:
Model 1: Predictors of discriminatory attitude toward people of a different race.
Model 2: Predictors of discriminatory attitude toward immigrants or foreign workers.
Model 3: Predictors of discriminatory attitude toward homosexuals.
Model 4: Predictors of discriminatory attitude toward PLHIV.
Model 5: Predictors of discriminatory attitude toward people of a different religion.
Model 6: Predictors of discriminatory attitude toward unmarried couples living together.

Analyses

This study employed descriptive analysis and binomial logistic regression analysis in addressing the research questions. Odds ratio (*OR*) was adjusted based on respective model, and significance was based on *p* value being less than 0.05. Representativeness of having discriminatory attitude among the sample population was calculated using an online sample size calculator (see Australian Bureau of Statistics, 2018). At the time of the data collection, in 2012, the total population was 5,312,437 people (Singapore Department of Statistics, 2018). However, only 3,285,140 were Singapore citizens. Using the figure 3,285,140 people, representativeness was calculated. Analyses were done on all six models. (SPSS syntax can be provided upon request to view raw data and results including unadjusted *OR*s and *p* values.)

Results

Descriptive Statistics

The total number of participants was 1,972 people, with 1083 females and 889 males. The responses varied between 1,939 and 1,972 for each item. The mean age of respondents was 41.88, ranging between 18 and 89 years old. The descriptive details of the sample population being analysed were presented in Table 1.

Table 1

Demographic Data

	n	%
Marital status		
Not married	816	41.40%
Married	1155	58.60%
Education		
Completed secondary education	1538	78.59%
Did not complete secondary education	419	21.41%

Table 1 *(Continued)*

		n	%
Employment			
	Employed	1164	59.03%
	Unemployed	808	40.97%
Religion is important			
	No	490	24.87%
	Yes	1480	75.13%
Tradition is important			
	No	1259	63.88%
	Yes	712	36.12%
Happiness			
	Happy	1829	92.75%
	Unhappy	143	7.25%
Does not want as neighbor: People of a different race			
	Not mentioned	1710	86.80%
	Mentioned	260	13.20%
Does not want as neighbor: Immigrants or foreign workers			
	Not mentioned	1266	64.26%
	Mentioned	704	35.74%
Does not want as neighbor: Homosexuals			
	Not mentioned	1362	69.14%
	Mentioned	608	30.86%
Does not want as neighbor: PLHIV			
	Not mentioned	1133	57.54%
	Mentioned	836	42.46%
Does not want as neighbor: People of a different religion			
	Not mentioned	1758	89.24%
	Mentioned	212	10.76%
Does not want as neighbor: Unmarried couples living together			
	Not mentioned	1665	84.52%
	Mentioned	305	15.48%

Note: N = 1972 (1083 females and 889 males); Age (Mean) = 41.88; Age range = 18-89.

Table 2

Approximation of Representativeness in Having Discriminatory Attitude

	n	Proportion (%)	CI	*SE*	*RSE*
People of a different race	1970	13.20%	0.01	0.01	5.78
Immigrants or foreign workers	1970	35.74%	0.02	0.01	3.02
Homosexuals	1970	30.86%	0.02	0.01	3.37
PLHIV	1969	42.46%	0.02	0.01	2.61
People of a different religion	1970	10.76%	0.01	0.01	6.49
Unmarried couples living together	1970	15.48%	0.02	0.01	5.26

Note: CI = confidence interval; *SE* = standard error; *RSE* = relative standard error.

Representativeness of Discriminatory Attitude

The figures on approximation of representativeness in having discriminatory attitude toward all six groups were presented in Table 2. The values had been calculated using the number of respondents, the total population of Singapore citizens, and the proportion of responses, as well as the confidence level being at 95%.

Model 1: Predictors of Discriminatory Attitude Toward People of a Different Race

Six factors were found to have statistically significant likelihood in predicting discriminatory attitude toward people of a different race in Singapore. The model correctly classified 89.5% of cases. The result was summarized in Table 3.

The largest predictor was people who have discriminatory attitude toward people of a different religion. The *OR* is 13.26 times. In other words, those who discriminate toward people of a different religion have the odds of 13.26 more likelihood to discriminate toward people of a different race, compared to those who do not discriminate. The second largest predictor was people who have discriminatory attitude toward unmarried couples living together, with an *OR* of 3.37. The third predictor was those who discriminate toward PLHIV, with the *OR* being 1.94. Other predictors were people who perceived traditional values being important in life (*OR* = 1.39), those who are unemployed (*OR* = 0.67), and people who do not want homosexuals as neighbors (*OR* = 0.66). When *OR* is below one, it indicates a decreased likelihood.

Model 2: Predictors of Discriminatory Attitude Toward Immigrants or Foreign Workers

Four factors were found to have statistically significant likelihood in predicting discriminatory attitude toward immigrants or foreign workers in Singapore. The model correctly classified 68% of cases. The result was summarized in Table 4. The largest predictor was people who have discriminatory attitude toward PLHIV (*OR* = 2.63) followed by discriminatory attitude toward homosexuals (*OR* = 1.81). The next predictor was those who discriminate toward people of a different race (*OR* = 1.41). Another predictor was people who emphasized on the importance of religion (*OR* = 0.71).

Table 3

Model 1: Predictors of Discriminatory Attitude Toward People of a Different Race

	OR	95% CI			p
Age	0.99	0.98	-	1.00	
Male	0.94	0.68	-	1.31	
Married	0.71	0.49	-	1.03	
Did not complete secondary education	0.81	0.55	-	1.19	
Unemployed	0.67	0.47	-	0.94	*
Emphasized on the importance of religion	0.89	0.62	-	1.30	
Emphasized on the importance of tradition	1.39	1.00	-	1.93	*
Unhappy	1.31	0.75	-	2.28	
Having discriminatory attitude on the following:					
Immigrants or foreign workers	1.38	0.99	-	1.92	
Homosexuals	0.67	0.46	-	0.97	*
PLHIV	1.94	1.37		2.74	***
People of a different religion	13.26	9.17	-	19.18	***
Unmarried couples living together	3.37	2.34	-	4.86	***

Note: OR = odds ratio; CI = confidence interval; *$p \leq .05$; ***$p \leq .001$; $\chi^2(13) = 411.68$, $p < .001$.

Table 4

Model 2: Predictors of Discriminatory Attitude Toward Immigrants or Foreign Workers

	OR	95% CI			p
Age	1.00	0.99	-	1.01	
Male	0.88	0.72	-	1.08	
Married	1.17	0.92	-	1.47	
Did not complete secondary education	1.00	0.79	-	1.26	
Unemployed	0.94	0.76	-	1.16	
Emphasized on the importance of religion	0.71	0.56	-	0.89	**
Emphasized on the importance of tradition	1.09	0.89	-	1.35	
Unhappy	1.27	0.87	-	1.84	
Having discriminatory attitude on the following:					
People of a different race	1.41	1.01	-	1.95	*
Homosexuals	1.81	1.45	-	2.25	***
PLHIV	2.63	2.14		3.23	***
People of a different religion	1.40	0.98	-	2.01	
Unmarried couples living together	0.92	0.69	-	1.24	

Note: OR = odds ratio; CI = confidence interval; *p ≤ .05; **p ≤ .01; ***p ≤ .001; χ²(13) = 204.64, p < .001.*

Model 3: Predictors of Discriminatory Attitude Toward Homosexuals

In this model, six factors were found to have statistically significant likelihood in predicting discriminatory attitude toward homosexuals in Singapore. The model correctly classified 74% of cases. The result was summarized in Table 5. The largest predictor was people who have discriminatory attitude toward PLHIV (*OR* = 3.50). Other predictors were discriminatory attitude toward unmarried couples living together (*OR* = 3.48), immigrants or foreign workers (*OR* = 1.83), and people of a different religion (*OR* = 1.66). While these predictors showed an increase in likelihood, two other predictors had an *OR* of less than one. Predictors that showed decreasing likelihood of discriminating toward homosexuals were those who had discriminatory attitude toward people of a different race and if they are unemployed, with *OR*s of 0.66 and 0.73 respectively.

Table 5

Model 3: Predictors of Discriminatory Attitude Toward Homosexuals

	OR	95% CI			p
Age	1.00	1.00	-	1.01	
Male	0.90	0.72	-	1.12	
Married	1.07	0.83	-	1.37	
Did not complete secondary education	1.10	0.85	-	1.42	
Unemployed	0.73	0.58	-	0.92	**
Emphasized on the importance of religion	0.91	0.71	-	1.17	
Emphasized on the importance of tradition	1.04	0.83	-	1.30	
Unhappy	0.94	0.62	-	1.42	
Having discriminatory attitude on the following:					
People of a different race	0.66	0.46	-	0.94	*
Immigrants or foreign workers	1.83	1.46	-	2.28	***
PLHIV	3.50	2.81		4.36	***
People of a different religion	1.66	1.14	-	2.44	**
Unmarried couples living together	3.48	2.58	-	4.70	***

Note: OR = odds ratio; CI = confidence interval; *p ≤ .05; **p ≤ .01; ***p ≤ .001; χ²(13) = 342.44, p < .001.*

Model 4: Predictors of Discriminatory Attitude Toward PLHIV

Five factors were found to have statistically significant likelihood in predicting discriminatory attitude toward PLHIV in Singapore. The model correctly classified 69% of cases. The result was summarized in Table 6. The largest predictor was people who have discriminatory attitude toward homosexuals ($OR = 3.49$) followed by discriminatory attitude toward immigrants or foreign workers ($OR = 2.62$), people of a different race ($OR = 1.88$), and unmarried couples living together ($OR = 1.44$). Another predictor was people who emphasized on the importance of tradition with an OR of 1.27.

Table 6

Model 4: Predictors of Discriminatory Attitude Toward PLHIV

	OR	95% CI			p
Age	1.00	0.99	-	1.01	
Male	0.86	0.70	-	1.06	
Married	0.96	0.76	-	1.21	
Did not complete secondary education	1.03	0.81	-	1.30	
Unemployed	1.19	0.96	-	1.47	
Emphasized on the importance of religion	1.11	0.87	-	1.40	
Emphasized on the importance of tradition	1.27	1.03	-	1.56	*
Unhappy	1.01	0.69	-	1.48	
Having discriminatory attitude on the following:					
People of a different race	1.88	1.34	-	2.65	***
Immigrants or foreign workers	2.62	2.13	-	3.23	***
Homosexuals	3.49	2.80		4.36	***
People of a different religion	0.78	0.53	-	1.14	
Unmarried couples living together	1.44	1.06	-	1.96	*

Note: OR = odds ratio; CI = confidence interval; **p* ≤ .05; ****p* ≤ .001; $\chi^2(13) = 337.47$, *p* < .001.

Model 5: Predictors of Discriminatory Attitude Toward People of a Different Religion

Three factors were found to have statistically significant likelihood in predicting discriminatory attitude toward people of a different religion in Singapore. The model correctly classified 91.6% of cases. The result was summarized in Table 7. The largest predictor was people who have discriminatory attitude toward people of a different race with an OR of 13.39. Another predictor was having discriminatory attitude toward unmarried couples living together with an OR of 4.36, while having such attitude toward homosexuals showed an OR of 1.80.

Model 6: Predictors of Discriminatory Attitude Toward Unmarried Couples Living Together

In this model, six factors were found to have statistically significant likelihood in predicting discriminatory attitude toward unmarried couples living together in Singapore. The model correctly classified 86.1% of cases. The result was summarized in Table 8. The largest predictor was people who have discriminatory attitude toward people of a different religion ($OR = 4.44$), followed by discriminatory attitude toward people of a different race ($OR = 3.48$).

Other predictors were those having discriminatory attitude toward homosexuals with an *OR* of 3.46, and toward PLHIV with an *OR* of 1.51.

Table 7

Model 5: Predictors of Discriminatory Attitude Toward People of a Different Religion

	OR	95% CI			p
Age	1.00	0.98	-	1.01	
Male	1.13	0.79	-	1.63	
Married	0.82	0.55	-	1.24	
Did not complete secondary education	1.17	0.78	-	1.77	
Unemployed	1.12	0.77	-	1.64	
Emphasized on the importance of religion	1.45	0.94	-	2.22	
Emphasized on the importance of tradition	1.03	0.72	-	1.47	
Unhappy	1.09	0.59	-	2.01	
Having discriminatory attitude on the following:					
People of a different race	13.39	9.26	-	19.37	***
Immigrants or foreign workers	1.37	0.95	-	1.99	
Homosexuals	1.80	1.22		2.65	**
PLHIV	0.74	0.50	-	1.10	
Unmarried couples living together	4.36	2.99	-	6.36	***

Note: OR = odds ratio; CI = confidence interval; $**p \le .01$; $***p \le .001$; $\chi^2(13) = 408.25$, $p < .001$.

Table 8

Model 6: Predictors of Discriminatory Attitude Toward Unmarried Couples Living Together

	OR	95% CI			p
Age	0.99	0.98	-	1.00	
Male	0.81	0.60	-	1.09	
Married	1.14	0.82	-	1.58	
Did not complete secondary education	1.09	0.78	-	1.52	
Unemployed	0.83	0.61	-	1.13	
Emphasized on the importance of religion	0.89	0.64	-	1.24	
Emphasized on the importance of tradition	1.24	0.93	-	1.65	
Unhappy	1.01	0.59	-	1.71	
Having discriminatory attitude on the following:					
People of a different race	3.48	2.41	-	5.02	***
Immigrants or foreign workers	0.91	0.67	-	1.23	
Homosexuals	3.46	2.56		4.67	***
PLHIV	1.51	1.11	-	2.05	**
People of a different religion	4.44	3.03	-	6.51	***

Note: OR = odds ratio; CI = confidence interval; $**p \le .01$; $***p \le .001$; $\chi^2(13) = 343.85$, $p < .001$.

Discussion

This present study identified the following groups as those who are vulnerable to being discriminated: people of a different race, immigrants or foreign workers, homosexuals, PLHIV, people of a different religion, and unmarried couples living together. Two research questions which were posed earlier were discussed below with the results.

Research Question 1

This study aimed to determine the prevalence of having discriminatory attitude. Hence, the following question was posed: What is the prevalence of having discriminatory attitude toward vulnerable groups in Singapore? While knowing the proportion of responses, it is not known if it is representative of the Singaporean population. Hence, the number of respondents, the total population of Singapore citizens, and the proportion of responses were taken into consideration; result showed the confidence interval, standard error, and relative standard error were low. Hence, the proportion of responses were determined to be representative. This current study observed that the six vulnerable groups assessed in Singapore can be separated into two categories: the least discriminated and the highly discriminated.

Under the least discriminated category, 10.76% and 13.20% of Singaporeans were showing discriminatory attitude toward people of a different religion and of a different race respectively. The most discriminated under this category was unmarried couples living together, with 15.48% of Singaporeans admitting they do not want these people as neighbors. Under the highly discriminated category, the percentages increased tremendously to 30.86% of Singaporeans having discriminatory attitude toward homosexuals, while 35.74% did not want immigrants or foreign workers to be their neighbors. The most discriminated group among all six vulnerable groups was PLHIV with 42.46% of Singaporeans having this attitude.

In addressing research question 1, not only the prevalence rate of having discriminatory attitude were calculated, but the categories of least and highly discriminated groups were also identified. This will be discussed further later on in the discussion to understand discrimination in the context of Singapore.

Research Question 2

Determining the predictors of discriminatory attitude was the second aim of this study. The following question was posed: What are the predictors of having discriminatory attitude toward vulnerable groups in Singapore? Binomial logistic regression was conducted on each model to determine significant predictors. This current study had identified the *ORs* and statistically significant predictors of discriminating others based on the assessed variables. However, consistently, all six models showed that most of the statistically significant predictors are discriminatory attitude itself, albeit toward other groups. This is similar to the findings of Haney (2016) whereby having discriminatory attitude toward immigrants and foreign workers and PLHIV are significant predictors of having the same attitude toward homosexuals. However, this present study is more comprehensive with more groups assessed as dependent variables and additional groups as independent variables (i.e., examining predictors for six groups instead of just one group). Concerning demographic variables, in all six models, the following were not observed to be statistically significant predictors: age, sex, marital status, level of education, and level of happiness. Other demographic variables that were found to be

significant predictors include employment status, as well as putting importance on religion and tradition. However, some predictors had *OR* of being less than 1. For example, employment status was observed as a predictor for having discriminatory attitude toward people of a different race ($p \leq 0.05$) and homosexuals ($p \leq 0.01$) with *OR*s respectively being 0.67 and 0.73. While it is difficult to conclude the how or why aspect of the findings without going deeper into the matter, findings from this research can be considered as one of the studies that researchers can first look into before embarking on the topic of discrimination in Singapore.

Viewing things from a broader perspective, a pattern was observed in all six models: a person who discriminates one group has the likelihood to discriminate another group. For example, the finding shows that those who discriminate toward people of a different religion have an *OR* of 13.27 to also discriminate toward people of a different race. Similarly, those who discriminate toward PLHIV and unmarried couples living together have *ORs* of 4.36 and 4.70 respectively to discriminate toward homosexuals. The first example concerns discriminations based on religious belief and race that are interrelated; either the person is one of them or an outsider. While the second example is more on how the vulnerable groups are toward the established and accepted norm of the majority and perceived as a social problem. All these suggest that there is a pattern where those who discriminate a particular group will also discriminate another group if there are perceived similarities or linkage between them. While non-group predictors are mostly non-significant, the trend supports the link between one discriminatory attitude toward another. These results can further be explored by viewing the groups through social identity theory, in-group versus outgroup, and even labeling theory. These predictors of discriminatory attitude can be comprehended better by looking into the context of Singapore's society, with regards to its culture, politics, and legal system.

Understanding Discrimination in Singapore's Context

Being a country that has diverse ethnic groups and culture, Singapore is also the most religiously diverse country in the world (Pew Research Center, 2014). The government had its policymaking revolves around the CMIO framework, with the majority of Singaporeans agrees that the government is responsible for promoting harmony among the population (Mathews, 2015). However, many had observed discriminations based on race and religion still exist, with mostly Malays and Indians in Singapore perceiving this (Mathews, 2015). Although the current finding supports previous literature that there are discriminatory attitudes based on race and religion in Singapore, the finding in this present study noted they fall under the least discriminated category.

Similarly, unmarried couples living together made up the other vulnerable group that is under the least discriminated category. This supports previous findings. Less than half of the population explicitly disagrees on the idea of unmarried couples living together (Mathews, 2015). In fact, in 2017 the divorce rate is getting higher while the marriage rate is trending down (Singapore Department of Statistics, 2018). All these may contribute to the fact that it has now become more tolerated for unmarried couples to live together; furthermore, only less than half of the population believes divorce is a social issue and is morally wrong (Mathews, 2015). This shows there is a shift moving away from traditional family and marriage values in the current society.

All these may contribute to why this present study had observed that among Singaporeans there is a low prevalence rate on having discriminatory attitude toward people of

a different religion (10.76%), people of a different race (13.20%), and unmarried couples living together (15.48%). These three vulnerable groups fall under the least discriminated category. To a certain extent, Singapore's effort to promote tolerance and harmony can be seen as a success for the first two vulnerable groups, while the third vulnerable group is becoming more accepted and tolerated due to a shift of the society's opinion on marriage institution being less of an integral aspect of life.

However, while a minority of Singaporeans started to lean more on the liberal side, the country is still on the conservative spectrum. There are more than three-quarter of the population that agreed on homosexuality being morally wrong (Mathews, 2015). The dominant Chinese population might contribute to the negative sentiment leading toward discrimination toward homosexuals in the country. Carrying the family name onto the next generation is a vital element in Chinese culture; hence, putting importance on tradition may have a link toward people of a different race and PLHIV. The situation is further aggravated by homosexuality being legally criminalized. The stance of the government can be seen when they used the news outlet to propagate negative opinion on this matter (Goh, 2008). The effect is evident with this present study observing a high prevalence rate among Singaporeans on having discriminatory attitude toward three vulnerable groups – homosexuals (30.86%), immigrants or foreign workers (35.74%), and PLHIV (42.46%) – resulting to these groups falling within the highly discriminated category.

While racial and religious harmony is being promoted by the government and had been ingrained into the mind-set of Singaporeans, it is a different story for foreign workers or immigrants. Responses indicating discriminatory attitude toward immigrants or foreign workers were more than double the percentage compared to responses concerning people of a different race and religion. This might be due to CMIO framework targeting and being effective in promoting tolerance among Singaporeans in Singapore internally, but not externally toward foreigners or immigrants. This supports previous findings that Singaporeans view immigrants and foreign workers as a threat from the economic perspective (see Gomes, 2014).

The most discriminated group out all six groups was PLHIV, which can be linked to discrimination toward homosexuals. It is still a stigma in Singapore, and the condition being a stereotype attributed to homosexuals further complicates the matter (Goh, 2008). The current situation in Singapore is that the government is still putting a tough stance toward homosexuals with legal criminalization on it is still in place. However, the country had lifted its ban on HIV-positive visitors since 2015. Nevertheless, it is the attribution of certain orientation toward specific diseases and vice versa that may contribute to these groups being highly discriminated.

Conclusion

This current study had observed two categories of vulnerable groups in Singapore: the least discriminated and the highly discriminated. Predictors had also been identified and then discussed. Viewing the findings from a broader perspective, a pattern was observed whereby a person who discriminates one group is likely to discriminate on another. However, it depends on the link between the groups, and it should be interpreted based on the current context of the society, which in this study it is the society in Singapore. Tolerance is constructed by how the government had engineered harmony through policymaking (i.e., racial, religious, and cultural harmony through the CMIO framework), while acceptance flourished due the absence of

restriction or legal backlash (i.e., unmarried couples living together is not legally prohibited). Negative sentiment is constructed by tradition, values, and culture of the majority, and the legal system (i.e., Chinese culture and the importance of carrying family name to the next generation, followed by homosexuals being criminalized, and to a certain extent the stigma on people living with HIV/AIDS). While engineered harmony is effective, it does not prioritize or emphasize the same values toward immigrants, foreign workers, and other groups seen as outsiders (i.e., CMIO is effective only among Singapore citizens but not with regards to the intended effect on non-Singapore citizens).

Even though current values in this conservative society are being contested, it is not detrimental for the society and the government to prevent the act of discrimination, even if not accepting and agreeing to them. What proves to be destructive on human values is the act of blatant discrimination in daily life, such as in the workplace, education, and even in aspects of home ownership. To work and earn a living, to have an education, and to have a home, are basic human rights. The majority may hold a strong opinion toward the minority. However, to discriminate on matters involving livelihood is to deprive others of their basic rights as a human being, and this is not acceptable.

Implications, Limitations, and Future Research

Overall, the CMIO framework in Singapore can be argued to be a success in fostering tolerance and acceptance. However, all things considered, such framework did not necessarily cultivate tolerance and acceptance as an intrinsic value – that is accepting a person as who he or she is, whether they are foreign workers or immigrants or stigmatized people. Current policies are formulated to support racial and religious harmony. This is commendable as it is relatively successful. However, at the same time, it fails to address other groups.

Hence, this study contributes to the current literature concerning diversity and discrimination in Singapore. The ever-progressive mindset of the population in Singapore proves to be a challenge on how the government needs to consider their current policies and policymaking process. This present study provides valuable information for the government of Singapore to better comprehend the current state of the issue on hand to assist in future policymaking in combating discrimination. Not only that, non-governmental organizations and civic societies can also make use of this study to understand the variables and context better, and for further research. Only by having an understanding of the matter can those involved create awareness and work toward educating the public effectively, as well as in lobbying to eradicate such discriminatory attitude in the society.

Although this study had presented original findings, several limitations should be acknowledged. Firstly, this study used an existing data set that assessed discriminatory attitude and not behavior. Hence, future research can address this by directly assessing discrimination at the behavioral level. Secondly, this study is of a quantitative nature. This opens up more opportunities for future studies to look into these predictors from a qualitative perspective, especially on understanding the links between them. Thirdly, this study did not further explore some of the variables that were expected to be predictors but were found to be nonsignificant. For example, unemployment should be linked to having discriminatory attitude toward immigrants and foreign workers, while viewing tradition as important should be a predictor for having discriminatory attitude toward unmarried couples and homosexuals. Hence, it is recommended for future studies to further assess these variables, especially exploring them

qualitatively to understand the rationale behind the result. Finally, this data set was collected in 2012. Hence, as a limitation, the results are several years old. Therefore, future studies can use more recent data set from the World Values Survey whereby there will be new data set every several years. Comparative analysis can also be done to assess if there are changes in prevalence rate and predictors using Wave 6 data and Wave 7 data.

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