FACTORS AFFECTING ATTITUDES TOWARD HOMOSEXUALS AMONG UNDERGRADUATE STUDENTS IN MALAYSIA

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A RESEARCH PROJECT
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Declaration

We hereby declare that the report entitled “Factors Affecting Attitudes toward Homosexuals among Undergraduate Students in Malaysia” submitted is written by us and is our own effort and that no part has been plagiarized without citations.

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This research paper attached here, entitled “Factors Affecting Attitudes toward Homosexuals among Undergraduate Students in Malaysia” prepared and submitted by “EE SIU KWIN, PUA XINYI, and TEH SIN TING” in partial fulfillment of the requirements for the Bachelor of Social Science (Hons) Psychology is hereby accepted.

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Abstract

Homosexuals faced sexual prejudice and discrimination by the society due to their sexual orientation, especially in Malaysia where homosexuality is illegal. Therefore, this study aimed to examine the relationship between intrinsic religiosity, gender role belief and the attitudes toward homosexuals among heterosexual undergraduates in Malaysia. Quantitative, cross-sectional research design was used in this correlation study. Four hundred sixty undergraduate students were recruited through convenient sampling. Both online and paper and pencil survey method were used in data collection. Attitudes Toward Lesbians and Gay Men Scale Revised 5-Item version (ATLG-R), Duke University Religion Index (DUREL), and Liberal Feminist Attitude and Ideology Scale (LFAIS): Gender Role subscale were used to measure the variables in this study. Result of the study revealed that those who had higher score in intrinsic religiosity showed more prejudicial attitudes toward homosexuality while those who held more feminist gender role belief had more positive attitudes toward homosexuality. Moreover, findings also indicated that males held more unfavorable attitudes toward both gay men and lesbians as compared to females. Furthermore, results of multiple regression revealed that gender role belief is the strongest predictor for the attitudes toward homosexuals, followed by intrinsic religiosity. The findings of the study are important for future studies as well as being a source of reference in planning awareness campaign and public health discourse.
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List of Abbreviations

ATG………… Attitudes toward Gay Men
ATL………… Attitudes toward Lesbians
ATLG……….. Attitudes toward Lesbians and Gay Men
AV………….. Antecedent Variables
DUREL…….. Duke University Religion Index
DV………….. Dependent Variable
IV……………. Independent Variables
LFAIS………. Liberal Feminist Attitude and Ideology Scale
LGBT……….. Lesbian, Gay, Bisexual, and Transgender
M……………. Mean
Max…………. Maximum
Min…………. Minimum
n…………….. Number of respondents
SD…………… Standard Deviation
SPSS……….. Statistical Package for Social Science
U.S.……….. United States
Factors Affecting Attitudes towards Homosexuals among Undergraduate Students in Malaysia

**Background of Study**

Undergraduate students are young adults who are at the stage of leaving adolescence but have not considered as an adult yet. Their attitudes toward homosexuals may change as their way of thinking are adjusted during the transition to young adult as better cognitive skills, ability to analyze through apparently contradict beliefs and formation of a sense of self as well as considerate things from multiple perspectives are developed (Brown, 2015). Furthermore, campus life provided a platform for interaction, undergraduate students have the opportunity to interact with various types of people, seek for intimacy and build romantic relationship or friendship (McLeod, 2013). Therefore, it would be interesting and important to study on their perceptions regarding homosexuals as they are also the future generation who will soon emerge into the society.

In Malaysia, homosexuality is an illegal behavior. According to Algappar and Kaur (2009), 323 articles related to homosexuality were published in the newspaper, New Straits Times, and it was found that 64 from 86 analyzed articles were portrayed negatively. Besides that, a survey conducted by Pew Research Center revealed that a total of 86% of the Malaysian society rejected homosexuality (“The global divide on homosexuality”, 2013). Besides the society, the politicians were also against homosexuality in Malaysia. This was shown when the LGBT community was viewed and rejected as a threatening, deviant culture by the Prime Minister (Human Rights Watch, 2013) and a gay rehabilitation centre was suggested in order to reduce the currently increasing number of gay men (Fridae, 2012).

Homosexuals faced a high chance of suffering from mental health problems as a result of the negative attitudes toward homosexuals by the society. Several possible consequences were higher risk in suicidal attempts (Hegna & Wichstrøm, 2007; King et al.,
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2008; Russell, 2003), alcohol dependence (Drabble, Midanik, & Trocki, 2005) and substance dependence (King et al., 2008) as compared to heterosexuals. Furthermore, mental disorders such as conduct disorder (Mustanski, Garofalo, & Emerson, 2010), major depression disorder (Chakraborty, McManus, Brugha, Bebbington, & King, 2011; Mustanski et al., 2010; Wang, Häusermann, & Weiss, 2014), neurotic disorders (Chakraborty et al., 2011), anxiety disorder (King et al., 2008), obsessive-compulsive disorder and phobic disorder (Chakraborty et al., 2011) were found to be suffered by homosexuals as a high risk group.

There were several factors that contributed to one’s attitude towards homosexuals. Various past studies found that interpersonal contact (Collier, Henny, & Sandfort, 2012; Detenber, Ho, Neo, Malik, & Cenite, 2013; Feng et al., 2012; Lau, Lau, & Loper, 2014; Tu & Lee, 2014), religiosity (Besen & Zicklin, 2007; Cardenas, Barrientos, Gomes, & Frias-Navarro, 2012; Ng, Yee, Subramaniam, Loh, & Moreira, 2015; Wu & Kwok, 2013; Yen et al., 2007), mediated exposure of homosexual content with homosexuals (Detenber et al., 2013) those who prefer Western movies (Feng et al., 2012), traditional gender role belief (Cardenas et al., 2012; Feng et al., 2012; Wellman & McCoy, 2014), religious groups (Adamczyk & Pitt, 2009; Roggemans, Spruyt, Droogenbroeck, & Keppens, 2015; Wu & Kwok, 2013), gender (Azrowani Ulia, Azlina, Omar Fauzee, & Rozita, 2012; Bernardo, 2013; Chang, Hsu, You, & Wang, 2013; Ellis, 2003; Hsu, 2009; Lau, 2013; Wu & Kwok, 2013), education level (Detenber et al., 2013; Hou et al., 2006; Ng et al., 2015; Nguyen & Blum, 2014), socioeconomic status (Bernardo, 2013; Detenber et al., 2013; Yen et al., 2007), residence area either urban or rural (Feng et al., 2012; Nguyen & Blum, 2014; Tu & Lee, 2014), those who view homosexual is not a choice (Detenber et al., 2013) and level of knowledge regarding homosexuality (Detenber et al., 2013; Hou et al., 2006) may posted differences in the perception towards homosexuals.
An individual’s religiosity is shown in the devotion one placed in his or her religion and the frequency of attending religious activities. Religious belief and education can place a strong influence one’s attitude towards certain issues such as homosexuality. The level of religiosity is identified as a strong predictor in one’s attitude towards homosexuals (Detenber et al., 2010; Ng et al., 2015). Religious person was found to hold more negative perception towards homosexuals (Jäckle & Wenzelburger, 2015) and are less likely to accept homosexuals in the society (Detenber et al., 2010).

Furthermore, gender role belief refers to one’s perception in the proper roles and behavior that males and females should portray in the society (Whitley, 2001). It can reflect the cultural ideas on the desirable outcome in sexual behavior (Nierman, Thompson, Bryan, & Mahaffey, 2007). This belief can greatly affect an individual’s attitudes regarding homosexuality. Researches found that those who held traditional gender role belief tend to have more negative attitudes toward gay men and lesbians (Ito, 2007; Stoof, 2014). In contrast, those with feminist or liberal gender role belief have more positive perceptions regarding homosexuals (Brown & Gladstone, 2012).

From these studies, the unfavorable attitudes toward homosexuals had become a serious issue as it can be seen that homosexuals in Malaysia are being seen and treated in a negative point of view by the government and the society. It is important to explore this issue by studying this topic on undergraduate students and their attitudes toward homosexuals. Therefore, this study focused in investigating intrinsic religiosity and gender role belief in their relationships with the attitudes toward homosexuals among undergraduate students in Malaysia.

**Statement of Problem**

Homosexuality is known to be an illegal behaviour in Malaysia even after some of the Western countries had legalized homosexuality. There was one of the many cases that
happened in Malaysia which the Malaysia former Prime Minister warned gay British ministers that they will not be welcome in Malaysia if they brought their male friends along (BBC News, 2001). In Malaysia, political influence is one of the reasons why Malaysia citizens have stigma about homosexuality which they stated that homosexuality is illegal and goes against the law of nature. This issue clearly showed the way Malaysia’s politicians acted against homosexuality and prevented homosexuality group to spread around Malaysia.

On the other hand, homosexuals in Malaysia were viewed as an out-group whereas gay men and lesbians were not supported and being bullied by the society. The lack of social and emotional support from the society toward homosexuals may lead to undesirable outcome. Homosexuals were less likely to stand up and voice out their inner feelings about themselves toward the society when they are being discriminated. Even when they got their courage to voice out about their sexual orientation, the society judged them negatively or even discriminated them personally. In a case of Malaysia, the news about a Malaysian man who was worry about his safety as there were people threaten his life and rebuked him after he confessed that he is gay online showed the prejudicial behavior of cyber bullying from the society toward homosexuals (The Star Online, 2010). Hence, Malaysians’ discrimination towards homosexuals was one of the reasons why this study is conducted.

In addition, there was minimum study about homosexual topic in Malaysia context which only few studies had been conducted and there are not many studies about undergraduate student’s attitudes toward homosexual in Malaysia. The lack of studies in Malaysia context caused other researchers to have difficulties to understand in details about homosexuality in Malaysia. Furthermore, researchers only focused on majority citizens which were the Malays and Chinese instead of the whole multiracial society. Based on a research regarding the attitudes of nursing students toward homosexuality in a local public university (Ng et al., 2015), 99% of nursing students involved were Malay students whereas only a
minority of participants from various ethnics and races were participated in this research. As a result, future studies might have difficulties in understanding the opinions of multi-ethnic citizens on homosexuality as the research focused more on the point of view of a specific dominant race in Malaysia.

Furthermore, a recent study showed that 70% of 1,000 Malays viewed themselves with religion as first, country as second and lastly is race which are Muslims first, continue with Malaysians and Malays third (Hong, 2006). Most of them identified themselves based on their religion. Other than that, strong religions can easily influence politics and public discourse which previous Malaysia’s Prime Minister Abdullah Ahmad Badawi’s speeches were frequently related to religion (Hong, 2006). The strong influence of religion can easily determine an individual’s perception towards certain unacceptable issue such as homosexuality especially in Malaysia whereby, homosexual is viewed as a crime. In addition, Malaysia is a country which well-known with various religions such as Muslims, Buddhists, Christians and so on. The differences of religions and level of religiosity showed different perceptions toward homosexuals and most religions were unable to accept homosexual which they often perceived homosexuals as negative behavior. Therefore, the differences in religion in Malaysia was the reasons why religiosity was choose to be one of the independent variables of this study in order to investigate the relationship between intrinsic religiosity and attitudes toward homosexuals among undergraduate students in Malaysia.

Moreover, Malaysia practiced medium masculinity culture in the society (Ting & Ying, 2013). Even though there was an increase of female employment in the labour force, males still dominated in political leadership and senior management roles in businesses in Malaysia (Goh, 2015). Besides that, several past literatures showed that gender role belief as a contributing factor to the attitudes toward homosexuals but there was lack of studies based on Malaysia context. So, the existence of traditional view in the perception of gender roles in
the society and limited studies conducted in Malaysia context led to the need to study on
gender role belief in the attitudes toward homosexuals among Malaysian undergraduate
students. As the problem stated above, this study proposed several research questions:

1) What are the relationships between intrinsic religiosity, gender role belief and
attitudes toward homosexuals among undergraduate students in Malaysia?

2) Is there any significant gender difference in the attitudes toward gay men and lesbians
among undergraduate students in Malaysia?

3) What is the unique predictor of attitudes toward homosexual among university
students in Malaysia?

Objectives

General objectives. This research aimed to determine the relationships between
intrinsic religiosity, gender role belief and attitudes toward homosexuals among
undergraduate students in Malaysia.

Specific objectives.

1. To determine the relationship between intrinsic religiosity, gender role belief and
attitudes toward homosexuals among undergraduate students in Malaysia.

2. To examine the gender differences in the attitudes toward gay men and lesbians
among undergraduate students in Malaysia.

3. To determine the unique predictors of the attitudes toward homosexuals among
undergraduate students in Malaysia.

Hypotheses

Research Objective 1: There are relationships between intrinsic religiosity, gender role belief
and attitudes toward homosexuals among undergraduate students in Malaysia.

$H_1$: There is a significant positive relationship between intrinsic religiosity and attitudes
toward homosexuals among undergraduate students in Malaysia.
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$H_2$: There is a significant negative relationship between gender role belief and attitudes toward homosexuals among undergraduate students in Malaysia.

Research Objective 2: There is a significant gender difference in the attitudes toward gay men and lesbians among undergraduate students in Malaysia.

$H_3$: Males held more negative attitude towards gay men among undergraduate students in Malaysia.

$H_4$: Males held more negative attitude towards lesbians among undergraduate students in Malaysia.

**Significance of Study**

The findings of this study can be helpful for understanding the knowledge gap about the attitude towards homosexuality. In the process of literature review, it was found that there were limited sources that related to homosexuality issues especially in Malaysia context. Most of the existing published studies were established in Western country, few studies were conducted in Eastern country especially Asian countries. Furthermore, most of the researches were done by conducting on a single factor that influenced the attitudes toward homosexuals. On the other hand, this study cooperated with variables such as intrinsic religiosity and gender role belief in testing its influence on the perceptions regarding homosexuals. Thus, the results of this study will be able to provide a more holistic understanding on the attitudes toward homosexuals in Malaysia context. In addition, this research is also able to serve as a platform to create awareness and better understanding among Malaysian to bring more equality to homosexual community by filling up the knowledge about homosexuality.

Besides, the findings can be beneficial in creating understanding or awareness about homosexuality. In fact, negative sexual prejudice towards homosexuals brought many consequences of antigay violence and victimization of homosexuals. Thus, the findings of the study can be utilized as the information in planning awareness campaign by bringing equality
to this sexual minority group. The greater openness about homosexuality in public can bring changes in factual knowledge which enable individual to dismiss the misconception and pessimistic stereotypes toward homosexuals. To sum up, this research is important to show the significant associations between the variables of intrinsic religiosity and gender role belief with the attitudes towards homosexuals within Malaysia’s context.

Definitions of Terms

**Undergraduate students.** Conceptual definition: Undergraduate students can be known as students who pursue for their degree which usually labelled as Bachelor of Arts or other courses (University of Cambridge, n.d.).

Operational definition: Undergraduate students were the target population of this study. The age range for the population was from 18 to 24 years old. Moreover, the undergraduate students from different universities of Peninsular Malaysia were recruited to respond to the questionnaires.

**Attitudes toward homosexuals.** Conceptual definition: Attitudes toward homosexuals can be defined as the perception or thought toward homosexuals. According to Lehman and Thornwall (2010), negative perceptions can lead to hate crimes directed towards gay men and lesbians, whereas positive perceptions can bring about social activism for this minority group.

Operational definition: Attitude towards homosexuals refered to the respondents’ scores on Attitude towards Lesbians and Gay Men (ATLG) scales (Herek & McLemore, 2011). Higher score means the respondents have negative attitude towards homosexuals.

**Intrinsic religiosity.** Conceptual definition: Religiosity was characterized as the level of fundamentalism and how frequent one attended to church (different building for different religion). Stolz (2008) defined religiosity as the preferences of a person, emotions, beliefs, and actions that refer to an existing (or self-made) religion.
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Operational definition: This study measured intrinsic religiosity by using the intrinsic religiosity subscale from The Duke University Religion Index (DUREL). High score corresponded to high level of religiosity.

**Gender role belief.** Conceptual definition: Gender role belief referred to “people’s ideas of the proper roles for men and women in society and of behavioral norms for men and women” Whitley (2001).

Operational definition: Gender role belief referred to respondents’ score on The Liberal Feminist Attitude and Ideology Scale: Domains and Items Gender Roles subscale (LFAIS). LFAIS was constructed to evaluate feminist attitudes thus; high score corresponded to liberal gender role belief.

**Chapter Summary**

In conclusion, the seriousness of the issue on homosexuality was reflected from the current phenomenon in Malaysia whereby homosexuals were being portrayed negatively and rejected from the societal and political point of view. Therefore, it is important to study on this topic on homosexuality among undergraduate students in Malaysia. In order to fill in the knowledge gap on this topic and to develop awareness and understanding on violence against homosexuals, this research aimed to investigate intrinsic religiosity and gender roles belief on its relationship with the attitudes toward homosexuals among undergraduates in Malaysia. Besides that, differences among gender in the attitudes toward gay men and lesbians were investigated separately.
Literature Review

Introduction

This chapter discussed the current phenomenon, factors and its consequences on the attitudes toward homosexuals. Next, various past studies on the relationships of variables and attitudes toward homosexuals were also reviewed. The theoretical framework and conceptual framework were presented at the end of this chapter.

Review on Attitudes toward Homosexuals

In Malaysia, homosexuality is illegal and the society had very low level of acceptance toward non-heterosexuals. Statistical survey conducted by Pew Research Centre indicated that approximately only 9% of respondents accepted homosexuality while 86% rejected homosexuality while others did not know or refused to answer. This phenomena can be explained by the fact that Malaysia as a Muslim country and religion centered around the people’s lives (“The global divide on homosexuality,” 2013) which portrayed sensitivity toward homosexual which believed to be contradicted with their religion beliefs. From the political point of view, the government also exhibited negative political stand toward LGBT behavior. This can be emphasized from the Prime Minister, Dato Seri Najib Tun Razak speech on July 2012, who stated that, “it is compulsory for us to fight LGBT behavior” (Human Rights Watch, 2013). This stand was more obvious where a Malaysian parliament, Datuk Baharum Mohamad suggested the government to start a gay rehabilitation center as it was found in a study that there was an increasing number of gay men whereby out of 10 Malaysian men, 3 of them were gays (Fridae, 2012).

There were several factors that contributed to one’s attitude toward homosexuals such as interpersonal contact, religiosity, and gender role belief. Firstly, interpersonal contact with homosexuals can influence the attitudes toward homosexuals. Previous literatures revealed that interpersonal contact is positively related with the attitudes toward homosexuals (Collier
et al., 2012; Detenber et al., 2013; Feng et al., 2012; Hsu, 2009; Lau, Lau, & Loper, 2014; Tu & Lee, 2014; Yen et al., 2007). Individuals who have contact with homosexuals held more positive attitude towards homosexuals.

Besides that, intrinsic religiosity was one of the factors that lead to attitudes toward homosexuals. Researches indicated that those with higher religiosity had more negative attitudes toward homosexuals (Besen & Zicklin, 2007; Cardenas et al., 2012; Ng et al., 2015; Wu & Kwok, 2013; Yen et al., 2007). Various studies also indicated that different religious groups have different attitudes toward homosexuals. Findings of the study found that Muslims (Adamczyk & Pitt, 2009; Roggemans et al., 2015) tend to have more negative attitudes toward homosexuals followed by Christian (Roggemans et al., 2015; Wu & Kwok, 2013).

Furthermore, gender role belief was also a factor in influencing the attitudes toward homosexuals. Past studies revealed that traditional gender role belief lead to more negative attitudes toward homosexuals (Cardenas et al., 2012; Feng et al., 2012; Wellman & McCoy, 2014).

In the study of homosexuality, it is important to address the demographic variables such as gender, educational level, socioeconomic status, rural or urban area, and knowledge of homosexuality. Gender can also influence the perceptions regarding homosexuals. Men had more unfavorable attitude towards gay men than lesbians as compared to women (Azrowani Ulia et al., 2012; Bernardo, 2013; Chang et al., 2013; Ellis, 2003; Hsu, 2009; Lau, 2013; Wu & Kwok, 2013). Moreover, education level of a person was one of the factors that determined the attitude towards homosexuals. It was notable that higher education level was related to the favorable attitudes toward homosexuals (Detenber et al., 2013; Gayeta, 2014; Hou et al., 2006; Ng et al., 2015; Nguyen & Blum, 2014).
Another factor that contributed to attitudes toward homosexuals was socioeconomic status. Researches revealed that those with higher socioeconomic status had more favorable attitudes regarding homosexuals (Bernardo, 2013; Detenber et al., 2013; Yen et al., 2007). Besides that, previous studies also highlighted that urban residents had more favorable attitudes concerning homosexuals (Feng et al., 2012; Nguyen & Blum, 2014; Tu & Lee, 2014). Lastly, researches revealed that higher level of knowledge regarding homosexuality was positively associated to positive attitudes regarding homosexuals (Detenber et al., 2013; Hou et al., 2006).

As a result of the sexual prejudice towards homosexuals by both the government and society, homosexuals were being mistreated and faced a high risk to mental health problems. Extensive literature had denoted that homosexuals were prone to suicidal attempts (Hegna & Wichstrøm, 2007; King et al., 2008; Russell, 2003), depression (King et al., 2008; Mustanski et al., 2010; Wang et al., 2014), alcohol dependence (Drabble et al., 2005), anxiety disorder (King et al., 2008), and substance dependence (King et al., 2008) compared to heterosexuals. This situation can be explained that they experienced social hostility, stigma and discrimination which placed them to at risk of emotional and behavioral problems.

Furthermore, homosexuals also had a higher tendency in suffering from other mental disorders such as conduct disorder (Mustanski et al., 2010), neurotic disorders, obsessive-compulsive disorder and phobic disorder as well as self-harm (Chakraboryt et al., 2011).

In conclusion, various studies showed several factors affecting the attitudes toward homosexuals. The sexual prejudice towards homosexuality had been a serious social issue in Malaysia. So, this study investigated two factors, which are intrinsic religiosity and gender role belief on its influence in attitudes towards gay men and lesbians among undergraduate students in Malaysia.
Relationship between Intrinsic Religiosity and Attitudes toward Homosexuals

Existing literature denoted the differences in religions on the perception or attitude toward homosexuals. Religious group can be viewed as an important variable when come to the topic of homosexual. Different religious believes and practices may have different point of view in this topic.

A Malaysian study conducted by Ng et al. (2015) evaluated nursing students’ attitudes toward homosexuality, to find out the causes of the attitudes, and to analyze in detail the relationship of religion in different aspects and homosexuality in Muslim population. A total of 495 nursing students of University Malaya Medical Centre (UMMC) with the mean age of 19.27 years were recruited as participants in this study. The instruments used were Homosexual Attitude Scale, Duke University Religion Index and demographic information. They revealed that religious group can significantly influence the attitudes toward homosexuals. Besides that, Muslim is significantly associated with the negative attitude toward gay men and lesbians due to the fact that homosexuality is illegal in Malaysia, the influence of intrinsic religiosity in them and their own belief toward Muslim teaching that integrated into their way of living.

Besides that, a Belgium research by Roggemans et al. (2015) aimed to study about the relationship between religion and the negative attitudes toward homosexuals among youth. The sample of 1907 secondary school students within the age range of 15 to 20 years old was randomly chosen and was measured using the Homophobia Scale and the Attitudes Towards Gay Men Scale. Findings showed that strong Muslim follower and strong Christian follower held the more negative attitudes toward homosexuals while freethinkers had the most positive attitudes regarding homosexuality. This was because of traditional gender roles as part of the cultural identity of youths and Muslims put importance and apply family values from their origin country even after immigrate to a Western country. For both Muslims and Christians,
their religion conviction is an important contributing element for their identity and affects their understanding of sexuality when they explore their own sexuality.

On the other hand, a cross-national comparison study conducted by Adamczyk and Pitt (2009) aimed to investigate religion and culture’s micro and macro effect on the public’s point of view regarding homosexuality. The data used were from the fourth wave of the World Values Surveys with sample size of 45,824 adults from 33 countries. They found out that religions such as Hindu, Buddhist, Orthodox Christians and freethinkers held more accepting attitudes regarding homosexuality compared to Muslims which held more condemning attitudes regarding homosexuality. This was explained from the harsher punishments for homosexuals which encouraged unacceptable attitudes regarding homosexuality in Muslim countries.

In addition to religious groups, religious belief, education and practices can strongly influenced one’s perception towards certain social issues, like homosexuality. So, an individual’s level of religiosity was also an important aspect to study on its influence on attitudes toward homosexuals.

Religiosity can be characterized as the level of fundamentalism and how frequent one attended to church (different building for different religion). Malaysian is a multi-ethnic society with variety of religions such as Islam, Buddhism, Christianity, Hinduism and others. In fact, in Malaysia, Islam is the federal religion and homosexuality is forbidden (Ng et al., 2015). As homosexuality is known as illegal, Malaysia rejected same-sex unions or anti-discrimination laws for sexual orientation or gender identity (Alagappar & Kaur, 2009). According to Ng et al. (2015), religion can create a big impact on one’s attitude toward homosexuals. However, existing literature showed inconsistency in reporting on its relation with attitudes toward homosexuals.
Landicho, Aliwalas, Buenaventura and Rodriguez (2014) conducted a research to investigate religiosity associated with attitudes towards homosexuals as well as the level of religiosity and attitudes based on demographic variables. A total of 120 non-homosexual students in Batangas were recruited for this study and the instruments used were Attitudes towards Lesbian and Gay Men Scale and Religiosity Scale. The religions of all participants were differentiated into Born Again, Roman Catholic, Adventist, Latter Day Saints and Iglesia ni Kristo. Findings showed that the respondents had an average level of attitudes towards homosexuals. Result also revealed no difference between the level of religiosity based on religion groups and gender. Besides that, it was found that there was no significant relationship among religiosity and the attitudes toward homosexuals. As a result, one’s religiosity did not influenced the attitudes toward non-heterosexuals.

In Malaysia, the result from the study by Ng et al. (2015) revealed that respondents have unfavorable attitudes toward homosexuals and the negative attitude is significant correlated with intrinsic religiosity. This can be explained that majority, more than 90 percentage of the sample, was Muslim and they had strong Islamic belief that hinder them to held sexual prejudice toward homosexuals.

A recent research by Jäckle and Wenzelburger (2015) investigated religion, religiosity, and attitudes concerning homosexuals with a multilevel analysis of 79 countries. As the databases, the World Values Survey from 1999-2004 and 2005-2009 were used for analysing purpose. The results indicated the clear discrepancies in levels of negative attitude towards homosexuality among the individuals that follow religions such as Muslims at the negative polar of the scale, while Buddhists and Atheists on the other extreme. Similarly, one with higher religiosity is also known as a religious person who have more unfavorable attitude toward homosexuality generally. The researchers also concluded that religiosity of a Muslim
had impact on the perceptions towards non-heterosexuals more negatively than the Buddhist’s religiosity.

Next, a research by Detenber et al. (2010) aimed to investigate the changes in attitudes concerning homosexuals in Singaporeans. It was conducted in the form of telephone interview using random-digit dialing. The participants consisted of 924 Singapore citizens and permanent residents with the mean age of 37.9 years. Result of this study indicated that intrinsic religiosity was the strongest predictor which was negatively related to the attitudes toward homosexuals and the acceptance of homosexuals. Result also showed the religious group that had the most negative attitudes and least acceptance of homosexuals was Muslim while Freethinkers had the most positive attitude and acceptance toward homosexuals. In addition, Christians scored for second lowest in ATLG but held more positive attitudes concerning homosexuals as compared to Buddhists and Muslims.

Moreover, Ahrold and Meston (2010) had examined about sexual attitudes differences in EURO-American, Asian, and Hispanic American populations with acculturation measures to study the relative influences of heritage and mainstream cultures, along with religiosity from different ethnics. The total sample of 1415 college students were asked to complete questionnaires which assessed attitudes towards homosexuality, traditional gender role, casual sex, and extramarital sex. Findings showed that intrinsic religiosity and spirituality were significantly correlated for women who are Asian, Hispanic, and Euro-American, whereby the conservatism of sexual attitudes is strongly related with intrinsic religiosity at higher levels of spirituality. The results showed consistency in indicating the different of ethnicity in the effects of religiosity on sexual attitudes. Similarly, in Asians and Euro-Americans, intrinsic religiosity and fundamentalism significantly predicted several sexual attitudes, whereas in Asians, significant predictor was spirituality. Besides that, the
measurement of religiosity predicted the sexual attitudes for females significantly more often than for males.

In conclusion, previous studies showed there was difference in the attitudes toward homosexuals among religious groups. Muslims was found to hold more unfavorable perceptions concerning homosexuality compared to other religions. In the aspect of religiosity, intrinsic religiosity gave a great impact on the attitude towards homosexuals. The higher the level of religiosity in an individual, the more unfavorable attitudes were held towards lesbians or gay men. From the existing studies, there was only limited number of Asian studies while most of them were conducted in Western context. Therefore, to fill in the knowledge gap, this study examined the relationship of religiosity and attitudes toward homosexuals among Malaysian undergraduate students.

**Relationship between Gender Role Belief and Attitudes toward Homosexuals**

Whitley (2001) defined gender role beliefs as individuals’ ideas of the proper roles and behavioral norms for female and male in community. According to Nierman, Thompson, Bryan and Mahaffey (2007), gender role beliefs were expected to explain multicultural differences in attitudes toward homosexuals since cultural ideas were closely reflected about the desirable outcome toward sexual behavior. As denoted by Brown and Gladstone (2012) women displayed less traditional gender roles beliefs than men did. In addition, there were significant correlation between liberal gender role beliefs and the favorable attitudes toward homosexuals (Brown & Gladstone, 2012).

Ito (2007) conducted a research on Japanese university students to investigate their attitudes toward homosexuals, its factors and in comparison to American university students using quantitative method. The participants for Japanese data were 166 Japanese university students in the average age of 20.3 years while American data were 746 university students in the average age of 22.4 years from Baunach and Burgess’ study in 2002. The instruments
used were Attitudes toward Gay Men and Lesbian scale, Male Role Norm Scale and General Social Survey. For both gender roles’ scales, male and female respondents were more likely to believe more traditional gender role attitudes as if the values of the scales are high. In this study, the result showed that Japanese heterosexual males who believe more in traditional gender role had more negative attitudes toward homosexuals compared to those who had more feminist gender role beliefs. Another finding of this study examined that American respondents held more negative attitudes regarding homosexuality after controlling for gender role attitudes.

For another Asia context, Feng et al. (2012) conducted a research to investigate the perception of homosexuality among adolescents and young adults from three different Asian cities where they practiced Confucianism. They conducted the research using cross-sectional design. The sample consisted of a total of 17016 males and females from the age range from 15 to 24 years old. The sample was recruited from Hanoi, Shanghai and Taipei using multistage sampling method. The findings of the study showed that respondents with traditional gender roles belief had negative attitude toward homosexuals which were both as abnormal and unacceptable. The researchers discussed that respondents who believed in more traditional Confucian values tend to perceived homosexuality as negative because they viewed non-heterosexuals as a violation of established ideas that what should males and females be based on cultural femininity and masculinity standards and viewed as being gender inconsistent and transgressing social norms.

Furthermore, a research was carried out to study the significance different between traditional gender roles and unfavorable attitudes towards homosexuals in Greek-Affiliated and independent male college students (DeCarlo, 2014). Ninety-eight participants that were eligible for the requirements were selected. After that, they were asked to complete the demographic questionnaire, Anti-Femininity subscale, the Anti-Masculinity subscale, and the
attitudes towards homosexuals. The result showed that participants who had higher adherence to traditional gender roles will had more unfavorable attitudes towards homosexuals. Thus, the researcher indicated that more research was needed before conclude with the statement of people with traditional gender role attitudes are tied into more unfavorable attitudes toward homosexuals in some populations.

In addition, Stoof (2014) conducted a research about the relationship between gender differences from cross-national and attitudes towards homosexuals. The researcher collected data of 220,457 participants in 40 countries. As a result, participants who held gender role attitude which is traditional have unfavorable attitudes regarding homosexuals. This was further explained that individual who believed in higher traditional gender role, he or she was expected to hold stricter and more valuable in gender identities. In spite of that, males’ gender role became stricter than female. Therefore, the attitudes toward homosexuals in males were more negative in order to uphold their masculinity and self-esteem, whereas this was less important for women’s femininity.

On the other hand, an interesting comparison study between Chile and U.S. had been carried out by Nierman, Thompson, Bryan and Mahaffey (2007). They examined the association between gender role beliefs and attitudes regarding homosexuals. A total of 102 students from Chile and 153 students from United States were recruited for this study. Moreover, the instruments that used for this study were Gender Role Beliefs Scale and Attitudes toward Lesbians and Gays scale. As a result, there were significant differences between traditional gender role belief and attitude towards homosexuality whereby respondents who believed in traditional gender roles will have unfavorable attitude towards homosexuals. Besides, it was also found that respondents from Chile held more traditional gender role beliefs and negative attitude toward homosexuals than respondents in United States. It was concluded that individuals who believed more in traditional gender role were
more likely to be prejudiced concerning homosexuality, perhaps due to the perception that homosexuals respectively violated femininity and masculinity based on cultural standards.

To summarize, gender role beliefs offered a great impact on the attitudes toward homosexuals. Individuals with more traditional gender role beliefs were more likely to hold sexual prejudice towards homosexuals. However, there was lack of studies in Malaysia context and no multi-ethnic samples from past studies. So, this study intends to examine the relationship between gender role beliefs and attitudes toward homosexuals among multi-ethnic sample of Malaysian undergraduate students as well as to trace the development of gender role belief.

**Link between Gender as Antecedent Variable and Attitudes toward Homosexuals**

Past researches highlighted the difference in gender concerning the attitudes toward homosexuals whereby male tends to have more negative attitude toward both gay men and lesbians while female held more positive attitudes toward both gay men and lesbians. Most of these result were reviewed from Taiwan (Chang & Chen, 2013; Hsu, 2009), Malaysia (Azrowani Ulia et al., 2012), Philippines (Bernardo, 2013) and Hong Kong (Lau, 2013).

In Philippines, the study conducted by Bernardo (2013) in investigating the association between belief systems and the attitudes toward homosexuals in two different Filipinos samples. The first study examined two belief systems, which were social dominance orientation and egalitarian belief, in relation to attitudes toward homosexuals. There were 173 university students as participants with the mean age of 18.86 years as sample and were measured by using Attitudes Toward Lesbians and Gay Men scale, Humanitarianism–Egalitarianism scale and Social dominance orientation scale. The result showed that men had more unfavorable attitudes towards gay men but there was no significant difference of gender regarding on the attitudes towards lesbians. In the second study, socioeconomic status and another two belief systems, protestant work ethic and polyculturalism, were included besides
replicate the first study. The sample for the second study was 334 participants, 135 from lower socioeconomic groups while 179 from higher socioeconomic groups. They were measured using Protestant work ethic scale and Polyculturalism scale included the scales used in the first study. It was found in the second study that women held more positive attitudes toward homosexuals while male had more unfavorable attitudes toward gay men.

In Taiwan, Chang and Chen (2013) conducted a study on the social relationship attitudes of university students who are identified as heterosexual toward homosexuals and bisexuals were examined. A total of 784 undergraduate students athletes were recruited as sample and were measured using three separate scales of Social Relationship Attitudes toward four sexes which are gay, lesbian and bisexuals males and females. The result showed that both gender held more unfavorable attitudes toward gay men and less negative towards lesbians and bisexuals.

Another Taiwan study was conducted by Hsu (2009) to investigate the association of demographic and sociocultural factors in the perception towards homosexuals among Taiwan heterosexual college students by using cross-sectional survey design. Two hundred and twenty three Chinese participants within the age range of 18 to 25 years old were recruited from private universities in Taipei and Taoyuan. The instruments used were Attitudes Toward Lesbians and Gay Men Scale-Revised-Short Form, Filial Peity Scale, Trueblood Sexual Attitudes Questionnaire and the Acceptance of Lesbians and Gay Men in Relationships Scale. Result showed males held more negative perceptions toward homosexuals compared to females in both Taipei and Taoyuan sample. This was due to the social structure in Chinese culture that emphasized on patriarchy.

Furthermore, a study conducted in Hong Kong by Lau (2013) examined regarding the heterosexual athletes’ attitudes toward homosexual players and the factors of the attitudes. Convenience sampling was used to recruit 100 university heterosexuals’ players as
participants with the mean age of 21.24 years. The measures used were demographic data and Attitudes Toward Lesbian and Gay Men Scale. Both males and females were found to have more negative attitudes towards gay than lesbian players. Besides that, men had more negative perceptions toward gay men in comparison to women. This is because gay men gained more social attention but lesbians gained better social acceptation.

Moreover, in Malaysia, Azrowani Ulia et al. (2012) aimed to examined sport spectators’ information and attitudes toward athletes who are gay men and lesbians. A total of 100 sport spectators were recruited as participants and were measured with The Knowledge about Homosexuality Questionnaire and Perception toward Lesbian and Gay. Result found that male was slightly more negative in their perception towards athletes who homosexuals. This is explained by men’s nature in being easily disgusted about homosexual behavior and women’s nature of accepting others by their quality instead of their behavior.

In conclusion, past studies from different countries in Asia showed that males are more negatives in their perceptions toward both gay men and lesbians as compared to females. This study also investigated separately the difference of gender in the attitudes toward gay men and lesbians among undergraduate students in Malaysia.

Theoretical Framework

In this research, Heider’s attribution theory was used to guide the framework of this study. Attribution theory is concerned on how people explain other’s behavior and how it relates with their thought and behavior (McLeod, 2010). This theory assumed that individual tried to decide the reason behind people’s action and what they do with their own perception. “Heider believed that people are naïve psychologists trying to make sense of the social world. People then to see the cause and effect relationships even there is none” (McLeod, 2010). In social psychology, two primary meanings for attribution were given which one denotes to the explanations of behavior and the other denotes to inference (Malle, 2011). According to
McLeod (2010), internal attribution is the process which the cause of the behavior happened due to internal characteristic such as personality traits but not due to external forces while external attribution is the process which causes the behavior happened in beyond the individual’s control which more likely due to situational or environment features. For instance, an individual has negative attitude toward homosexual’s group might due to that the individual’s personalities or belief about homosexuals (internal attribution) or due to particular situation that happened which caused the negative attitudes toward homosexuals (external attribution). Studies of attribution theory were extended by Weiner (1985) as he introduced the concept of controllability. If behaviors are labelled as “controllable”, people who imitate that behavior can be counted as a personal responsibility but when behaviors are labelled as “uncontrollable”, the shown behavior is less likely to count as liable (Whitehead, 2012).

In this century, societies tended to attribute homosexuality with different perspectives and different scales. When there were numerous means of attribution, it led to different attitudes regarding homosexuals among the societies. As an example, some countries had started to legalize homosexuality or same-sex marriage while other countries were still unable to accept homosexuality and often seen it as a crime. In Malaysia, homosexuality was often seen as immoral and homosexuals were treated as criminals as Malaysia does not recognize same-sex relationships and it is a punishable sin (Alagappar & Kaur, 2009). However, there was an important feature in attribution theory which is controllability and people’s attitudes and behavior toward stigmatized minority groups can be influences by attributions of controllability (Detenber et al., 2013). According to Bernard (1990), attribution theory showed that heterosexuals’ attitudes toward homosexuals would be more unfavorable when homosexuality was attributed as a controllable behaviour instead of uncontrollable. The different approach of attribution for homosexuality determined whether people can respect
and tolerant homosexuality as part of the society. In attribution theory, people will perceive certain behaviors as acceptable or not according to their norms, beliefs or cultures. If their perception have been fixed with the negative perceptions concerning homosexuality from the beginning, it will attribute that homosexuality is wrong and unacceptable to them.

Attribution theory was found to have an effect on intrinsic religiosity which was one of the variables in this study. A research done by Patrick (2012) stated that people with religious duties in church suggests an essential role for influencing the explanations on homosexuality. In term of religiosity education, people always included negative references to homosexuals and homosexuality was often considered as a crime against the nature (Patrick, 2012). Haider-Markel and Joslyn (2008) revealed that 20 percent of the respondents that never attended church consider homosexuality as a sin while the other 80 percent of the respondents who frequently attended church were more likely believe that homosexuality is sinful. This showed that people who often attended church receive negative perceptions about homosexuality than those who never attended church. Other than that, respondents who frequently attended church were asked whether clergy stated the law of homosexuals and about 52 percent of respondents stated that clergy did mentioned it and 72 percent of the respondents who frequently attended church stated that homosexuals were discouraged in religious. Based on the results stated, it showed clearly that in term of intrinsic religiosity, causal attribution about homosexuality had been shaped negatively (Whitehead, 2012). When religious education mentioned about homosexuals in negative perception, people with strong religiosity can easily influences with negative thought of homosexuals. In term of religiosity belief, homosexual was known as sinful and this sinful act was more likely chosen and controllable behavior. People who have strong religiosity believed that homosexual is sinful and they tend to view homosexual group as negative because homosexual group choose to
have this sinful behavior. Undeniable, people with strong religiosity belief have negative perception toward homosexuality.

Attribution theory also explained on how people define other’s behavior with their own perceptions. In term of gender role belief, people with strong gender role belief tend to believe each gender has their own role such as male has to work and earn money while female has to stay at home and care the family. Whitehead (2012) mentioned that people who hold strong belief in traditional gender roles generally showed negative perceptions concerning homosexuality. This was explained by the fact that those with strong traditional gender role belief were unable to accept the roles of lesbians and gay men which lesbians were less feminine and more masculine and gay men were more feminine and less masculine (Whitehead, 2012). Based on attribution theory, people with strong gender-role belief will view homosexual as “controlled” behavior whereas every genders believe that male should be masculine and female should be feminine but not vice versa (Whitehead, 2012). When the behavior happened vice versa, people with strong gender-role belief will show more unfavorable attitudes toward homosexuals.

In conclusion, the linkage between intrinsic religiosity, gender role belief and attitudes toward homosexuals is strengthened with the support of attribution theory. The support of attribution theory helped to investigate the associations among intrinsic religiosity, and gender role belief on attitudes toward homosexual among university students in Malaysia.
Figure 1. Theoretical framework of intrinsic religiosity, gender role belief and attribution theory.

Conceptual Framework

The main objective of this study was to examine the relationship between intrinsic religiosity, gender role belief, and attitudes toward homosexuals among undergraduate students in Malaysia. Antecedent variables (AV) of this study were demographic information from students which included gender, ethnicity, and religious as well as private or public university. The independent variables (IV) for this research were intrinsic religiosity and gender role belief while the dependent variable (DV) was attitudes toward homosexuals. Several past studies found that there were relationship between intrinsic religiosity (Besen & Zicklin, 2007; Cardenas et al., 2012; Ng et al., 2015; Wu & Kwok, 2013; Yen et al., 2007), gender role belief (Cardenas et al., 2012; Feng et al., 2012; Wellman & McCoy, 2014) and attitudes toward homosexuals. Attribution theory was the foundation of conceptual framework as conceptual framework was guided by the theory.
Chapter Summary

The current phenomenon concerning the attitudes towards homosexuals in Malaysia, its factors and consequences was discussed in this chapter. Furthermore, several empirical studies regarding the attitudes toward homosexuals were summarized according to the different independent variables which are religiosity and gender role belief. Studies about the relationship between gender and religion groups on the attitudes toward homosexual were also reviewed in this chapter. Attribution theory was used to explain the links of all the independent variable in the attitudes toward homosexuals. Lastly, the conceptual framework of this study was shown in a diagram to give a clearer picture on the relationships between variables understanding.
Methodology

Introduction

This chapter explained the research design used to frame this study. Target population and location of the study were also outlined and followed by the method of sample size calculation. The sampling method used to recruit respondent of the study was discussed as well. Next, the detail of the research procedure and measures used in this study were presented. The data processing and analysis plan were stated at the end of this chapter.

Research Design

Quantitative approach was used to study a sample on undergraduate students’ attitudes toward homosexuality and its causes for their attitude. Quantitative study is the use of post positivist claims to develop understanding, apply inquiry plans as experiments and surveys, and gather data on prearranged measurement to obtain a statistical data (Creswell, 2003). Besides that, cross-sectional is the method used to determine the frequency or level of a specific attitude within a well-defined population at a certain time (Silva, 1999). Thus, cross-sectional research was chosen to study across participants who are heterosexuals from different aspects on their current attitudes toward non-heterosexuals who are gay men and lesbians. Furthermore, correlational design was employed to examine the relationships of intrinsic religiosity and gender role belief on the attitudes toward homosexuals. Correlational research design is the analysis of a number of factors to verify the degree of change or relation of values for the determinants in a detectable pattern (Privitera, 2014). Moreover, survey method was used for the data collection of the study. Survey research design is describe as the method to evaluate, describe or characterize an individual or a group by using a written or oral form of survey (Privitera, 2014). Therefore, a correlational survey was used to investigate the relationships between intrinsic religiosity, gender role belief and the attitudes toward homosexuals among undergraduate students.
Research Population and Location of the Study

Population of this research involved undergraduates from both public and private universities and colleges. The total number of higher education students in Malaysia was 1,156,293 students in the year 2013 (Kementerian Pendidikan Malaysia, 2013). There were a total of 20 public universities (Senarai IPTA, 2015) as well as 510 private universities and colleges located in Malaysia (Kementerian Pendidikan Tinggi, 2015).

Malaysia is situated in the southeast of the Asia continent. The country is divided into Peninsular Malaysia and East Malaysia. There are a total of 13 states and three federal territories in Malaysia. Peninsular Malaysia, also known as West Malaysia, consists of eleven states along with two federal territories. It is divided into four regions which are the Northern region that consisted of Perlis, Kedah, Perak, and Pulau Pinang, the Central region that consisted of Kuala Lumpur, Putrajaya, Selangor, and Negeri Sembilan, the Southern region that consisted of Melaka and Johor, and lastly the East Coast region that consisted of Pahang, Kelantan, and Terengganu. On the other hand, East Malaysia is made up of the remaining two states and one federal territory which are Sarawak, Sabah and Labuan.

The total population of Malaysia was 30,644,293 in the year 2015 (Countrymeters, 2015). As a multiracial country, Malaysia consists of three main ethnicity where Malays occupies more than half of the population (63.1%), followed by Chinese (24.6%), and lastly Indians (7.3%) while the rest are other minor ethnic groups (0.7%) according to the lastest 2010 census (Department of Statistics Malaysia, 2011).

Sample Size and Sampling Method

The sample size of this research was calculated according to the sample size calculation from Krejcie and Morgan (1970). It was stated that the minimum size of a sample for the population over 1,000,000 is 384 people with the standard error = .05 (Krejcie & Morgan, 1970). So, the estimated sample size of this study including 20% expected outlier or
missing data or incomplete questionnaire is 460 undergraduate students. Students who were identified as homosexuals were excluded in the sample as this study only interested on heterosexuals’ attitudes toward homosexuals. Respondents of the study were recruited using convenient sampling whereby questionnaires were distributed in the form of online survey and paper and pencil survey to undergraduate students that were convenient and available (Bluman, 2009) from the universities and colleges in Malaysia. Random sampling was not used as it was impossible to gather the name list from the selected universities and colleges as well as it is difficult to reach every selected respondent. Therefore, convenient sampling was chosen for this study. Furthermore, for online survey, the link was made available only for Malaysian undergraduate students who are currently studied in universities and colleges in Malaysia. A list of private and public universities and colleges that involved in this study is shown in Table 3.1.

Research Procedure

Data collection was conducted through online or paper and pencil. An internet link of the online survey [https://docs.google.com/forms/d/1msmtOHuZMQ_smX7ngXTLph2iKyzubS1BkmvB6U7fk/viewform] was distributed to undergraduate students from public and private universities and colleges across Malaysia. The survey consisted of an informed consent form, measurements and demographic information. Respondents were required to sign the informed consent form prior proceeded to answer the questionnaire. The online survey was opened for responses for three months from January 2016 until March 2016. On the other hand, data collection using paper and pencil survey was conducted at cafeterias and lecture halls to reach the respondents from different universities. Firstly, details in the informed consent such as purpose of the study, voluntary participation and confidentiality of information were briefly explained to the participants. The time to complete the questionnaire took approximately 15 minutes. All procedure of data collection was approved by university
research ethical committee of Universiti Tunku Abdul Rahman, refer number of
U/SERC/05/2016.

Table 3.1
*List of Private and Public Universities or Colleges in Malaysia that Respondents Attended*

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<th>Private</th>
<th>Public</th>
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<td>Aimst University</td>
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<td>Asia Pacific University</td>
<td>International Islamic University Malaysia</td>
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<td>Advance Tertiary College</td>
<td>Politeknik Sultan Salahuddin Abdul Aziz Shah</td>
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<td>Brickfields Asia College</td>
<td>University Technology Mara</td>
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<td>Disted College</td>
<td>Universiti Kebangsaan Malaysia</td>
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<tr>
<td>International Medical University</td>
<td>Universiti Malaya</td>
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<tr>
<td>Infrastructure University Kuala Lumpur</td>
<td>Universiti Malaysia Perlis</td>
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<td>Melaka International of Science and Technology</td>
<td>Universiti Malaysia Sarawak</td>
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<td>Methodist College Kuala Lumpur</td>
<td>Universiti Putra Malaysia</td>
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<td>Monash University</td>
<td>Universiti Sains Malaysia</td>
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<td>Multimedia University</td>
<td>Universiti Teknikal Malaysia Melaka</td>
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<td>National Cheng Chi University</td>
<td>Universiti Teknologi Malaysia</td>
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<td>Tunku Abdul Rahman University College</td>
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<td>Taylor’s University</td>
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<td>The One Academy</td>
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<td>UCSI University</td>
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<td>Universiti Tenaga Nasional</td>
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<td>Universiti Teknologi PETRONAS</td>
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<td>Universiti Tunku Abdul Rahman</td>
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Research Instrument

This study used three research instruments which were Attitudes Toward Lesbians and Gay Men Scale, Revised 5-Item version (ATLG-R), Duke University Religion Index (DUREL), and the Liberal Feminist Attitude and Ideology Scale: Gender Roles subscale to measure all the variables under study.

Attitudes toward homosexuals. The Attitudes Toward Lesbians and Gay Men Scale, Revised 5-Item version (ATLG-R) by Herek and Mclemore (2011) is a 10 items brief measure for heterosexuals’ perception towards homosexuals. It consisted of two subscales with 5 items each which are Attitude Toward Lesbians (ATL-R-S5) Subscale and Attitude Toward Gay Men (ATG-R-S5) Subscale. Examples of the items listed are ‘Sex between two men is just plain wrong’ and ‘Female homosexuality is a perversion’. Respondents stated their opinion on all items based on Likert scale of 7-point with 1 (strongly disagree) to 7 (strongly agree). Besides the four items that are reverse-scored such as ‘Male homosexuality is a natural expression of sexuality in men’ and ‘Female homosexuality is merely a different kind of lifestyle that should not be condemned’, all items’ scores are computed based on the Likert scale. Scores of all items were totalled up and divided with the total number of items. Higher score indicated a more negative attitude toward homosexuals. High levels of internal consistency is shown in ATLG subscales ($\alpha > .85$) when administered with college student samples (Fisher, Davis, Yarber, & Davis, 2010). ATLG also showed test-retest reliability ($rs > .80$) with alternate forms as well as discriminant validity (Fisher et. al, 2010).

Intrinsic religiosity. The Duke University Religion Index (DUREL) by Koenig and Büsßing (2010) measures religious involvement by assessing three different aspects. Organizational religious activity is measured in the first item while non-organizational religious activity is measured in the second item. Intrinsic religiosity is measured in the continuing three items, for example, ‘In my life, I experience the presence of the Divine’. The
FACTORS AFFECTING ATTITUDES TOWARD HOMOSEXUALS

first two items are measured with a 6-point Likert scale while the remaining three items are measured with a 5-point Likert scale. Scores of each subscale are calculated separately. A higher score indicates higher level of religiosity in each three subscales. The three-item Intrinsic Religiosity subscale was found to have a Cronbach’s alpha of 0.75 (Koenig & Büsung, 2010). This study only utilized the three items of intrinsic religiosity.

**Gender role belief.** The Liberal Feminist Attitude and Ideology Scale (LFAIS) by Morgan (1996) is a 60 items measure for feminist attitude on three domains, which are gender role attitudes, goals of feminism and feminist ideology. Participants is required to rate according to a 6 point Likert scale whereby 1 (strongly disagree) whereas 6 (strongly agree). The Liberal Feminist Attitude and Ideology Scale (LFAIS): Gender Roles subscale by Morgan (1996) consisted of 10 items that measures perceptions on the proper roles for male and female. Examples of items listed are ‘Both husband and wife should be equally responsible for the care of young children’ and ‘It is insulting to the husband when his wife does not take his last name’. Only five items are reversed scored, the remaining items are computed according to the Likert scale. All the scores are summed up and a high score showed liberal in gender role belief. The reliability of gender roles subscale is Cronbach α = .77 while the test-retest reliability is α = .83 (Morgan, 1996). Besides that, it showed strong concurrent validity and convergent validity (Morgan, 1996). Only the 10 items gender role subscale was utilized for the research.

**Pilot Study**

A pilot study was conducted on the 4th of December 2015, Friday in one of the lecture halls of University Tunku Abdul Rahman. A total of 30 undergraduate students within the age range of 19 to 24 years, were recruited as respondents through convenient sampling. The respondents was found to have a mean age of 21.27 years (SD=1.05). All questionnaires
were distributed and information about the study such as purpose of this research as well as
the informed consent was briefly explained to all respondents.

Reliability

Pilot study was conducted to test the reliability of the scales used in this study. It was
found out that the reliability of the Attitudes Toward Lesbians and Gay Men Scale, Revised
5-Item (ATLG-R) was quite high (α=.918) in the pilot study as well in the actual study
(α=.873). Furthermore, the Duke University Religion Index (DUREL) obtained a Cronbach’s
alpha of .736 from the pilot study whereas Cronbach’s alpha of .778 from the actual study.
Lastly, the reliability of the Liberal Feminist Attitude and Ideology Scale (LFAIS): Gender
Roles was found to be α=.539 in the pilot study while α=.661 in the actual study. The
reliability of all variables from both pilot and actual study were all shown in Table 3.2.

Table 3.2
Reliability of attitudes toward homosexuals, intrinsic religiosity and gender role belief from
pilot and actual study

<table>
<thead>
<tr>
<th>Scale</th>
<th>Number of items</th>
<th>Cronbach’s alpha, α</th>
</tr>
</thead>
<tbody>
<tr>
<td>Attitudes Toward Lesbians and Gay Men Scale,</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Revised 5-Item version</td>
<td>10</td>
<td>.918</td>
</tr>
<tr>
<td>Duke University Religion Index</td>
<td>5</td>
<td>.620</td>
</tr>
<tr>
<td>Liberal Feminist Attitude and Ideology Scale:</td>
<td>10</td>
<td>.539</td>
</tr>
<tr>
<td>Gender Role</td>
<td></td>
<td>.661</td>
</tr>
</tbody>
</table>

Data Processing and Analysis

All data were collected and analyzed through the IBM Statistical Package for Social
Science (SPSS) version 20.0. Description of the features of sample including demographic
variables such as gender, age, ethnic groups, religion and others was examined by descriptive
analysis. Attitudes toward homosexuals were examined based on the factors in this study
which are intrinsic religiosity and gender roles belief. Pearson correlation test were used to
analyze the correlations between intrinsic religiosity, gender role belief and the attitudes
toward homosexuals. This was because correlation test could verify two variables in a linear relationship in terms of strength and direction (Bluman, 2009). Furthermore, independent samples t-tests were used to examine gender differences on the attitudes toward gay men and lesbians separately. By conducting independent t-test, the difference between the two means were tested when two conditions are met which are the two samples were not related from each other and are recruited from two populations that are normally distributed (Bluman, 2009). Besides that, multiple regression test verified the existence of significant relationship of several independent variables toward a single dependent variable (Bluman, 2009). Therefore, multiple regression test was used to investigate the unique predictors of the attitudes toward homosexuals. All statistical procedure utilized 0.05 as significant value.

Chapter Summary

Quantitative, cross-sectional approach and correlational survey design were chosen as the research design for this study. Besides that, undergraduates from public or private universities or colleges were recruited as sample through conventional sampling. Attitudes Toward Lesbians and Gay Men Scale, Revised 5-Item version (ATLG-R), Duke University Religion Index (DUREL) and the Liberal Feminist Attitude and Ideology Scale (LFAIS): Gender Role subscale were the instruments used to measure the variables in this study. Furthermore, pilot study was conducted to test the reliability of the scales used. It was found out that all three scales had high reliability in both pilot study and actual study. Lastly, descriptive analysis, Pearson correlation test, independent sample t-test and multiple regression test were conducted using IBM Statistical Package for Social Science (SPSS) version 20.
Result and Discussion

Introduction

This chapter presented on the background of respondents and the frequency distribution of the variable in this study. Besides that, the findings of this study as well as explanation of result with supportive materials based on past literatures were also presented.

Descriptive Statistics

The total number of 495 respondents were collected and filtered. Thirty five respondents who were either gay or lesbian were excluded as this study focused on studying attitudes of heterosexuals’ toward homosexuals. Therefore, only 460 respondents were remained for further analysis.

Respondents’ background. Table 4.1 showed the demographic information of the participants in this study. The sample consisted of 460 participants with the average age of 21.02 years (SD=1.59). The gender of the participants was equally distributed which consisted of 230 females (50%) and 230 males (50%). Most of the participants were Chinese (76.7%), followed by Malays (10.4%), Indians (7.4%) and other ethnicities (5.4%) such as Bidayuh, Iban and many more. Furthermore, most of them were Buddhism (62.8%), followed by Christianity (13.9%), Islam (11.3%), Hinduism (6.1%) and other religions (5.9%) such as Atheist, Taoism and others. Lastly, most of the participants were studying in private universities (77.6%) and 22.4% of the respondents pursued their study in public universities.

Frequency distribution of variables under study. Table 4.2 displayed the scores on the attitudes toward homosexuals, intrinsic religiosity and gender role belief. The mean values and standard deviations (SD) of all scales used in this study were tabulated. Attitudes toward homosexuals was found to have the mean score of 3.71 (SD=1.33) while intrinsic religiosity had a mean score of 9.55 (SD=3.04). On the other hand, the mean score of gender role belief was 40.68 (SD=6.77).
### Table 4.1
Demographic information of participants (N=460)

<table>
<thead>
<tr>
<th>Category</th>
<th>n (%)</th>
<th>Mean</th>
<th>SD</th>
<th>Min</th>
<th>Max</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td>21.02</td>
<td>1.59</td>
<td>17</td>
<td>27</td>
<td></td>
</tr>
<tr>
<td>Gender</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>230 (50)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Female</td>
<td>230 (50)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ethnic</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Malay</td>
<td>48 (10.4)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Chinese</td>
<td>353 (76.7)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Indian</td>
<td>34 (7.4)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Others</td>
<td>25 (5.5)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Religion</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Islam</td>
<td>52 (11.3)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Buddhism</td>
<td>289 (62.8)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hinduism</td>
<td>28 (6.1)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Christianity</td>
<td>64 (13.9)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Others</td>
<td>27 (5.9)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Universities</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Private</td>
<td>356(77.4)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Public</td>
<td>104(22.6)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note. SD: Standard Deviation; Min: Minimum; Max: Maximum

### Table 4.2
Frequency distribution of attitudes toward homosexuals, intrinsic religiosity, and gender role belief (N=460)

<table>
<thead>
<tr>
<th>Category</th>
<th>n (%)</th>
<th>Mean</th>
<th>SD</th>
<th>Min</th>
<th>Max</th>
</tr>
</thead>
<tbody>
<tr>
<td>Attitudes toward homosexuals</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Low (&lt; 3.8)</td>
<td>226(49.1)</td>
<td>3.71</td>
<td>1.33</td>
<td>1.00</td>
<td>7.00</td>
</tr>
<tr>
<td>High (≥ 3.8)</td>
<td>234(50.9)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Attitudes toward gay men</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Low (&lt; 3.8)</td>
<td>214(44.6)</td>
<td>3.83</td>
<td>1.43</td>
<td>1.00</td>
<td>7.00</td>
</tr>
<tr>
<td>High (≥ 3.8)</td>
<td>246(55.4)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Attitudes toward lesbians</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Low (&lt; 3.6)</td>
<td>217(41.6)</td>
<td>3.59</td>
<td>1.34</td>
<td>1.00</td>
<td>7.00</td>
</tr>
<tr>
<td>High (≥ 3.6)</td>
<td>243(58.4)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Intrinsic religiosity</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Low (&lt; 10)</td>
<td>225(48.9)</td>
<td>9.55</td>
<td>3.04</td>
<td>3.00</td>
<td>15.00</td>
</tr>
<tr>
<td>High (≥ 10)</td>
<td>235(51.1)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gender role belief</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Low (&lt; 40)</td>
<td>226(49.1)</td>
<td>40.68</td>
<td>6.77</td>
<td>22.00</td>
<td>60.00</td>
</tr>
<tr>
<td>High (≥ 40)</td>
<td>234(50.9)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note. SD: Standard Deviation; Min: Minimum; Max: Maximum
Inferential Statistics

This section presented the correlation analysis, independent t-test and linear regression based on the research questions of the study.

Research Question 1: What are the relationships between intrinsic religiosity, gender role belief and attitudes toward homosexuals among undergraduate students in Malaysia?

\( H_1: \text{There is a significant positive relationship between intrinsic religiosity and attitudes toward homosexuals among undergraduate students in Malaysia.} \)

As depicted in Table 4.3, there is a statistically significant positive association between intrinsic religiosity with attitudes toward homosexuals among undergraduate students \((r = .382, p = .000)\). This means that undergraduate students who reported to have higher intrinsic religiosity are more likely to have higher score on attitude towards lesbians and gay men (ATLG) scale which means they held more unfavorable attitude towards homosexuals. Hence, \( H_1 \) is supported.

The results from correlation test provide consistent support for first hypothesis which there is a significant positive relationship between intrinsic religiosity and the attitudes toward homosexual among undergraduate students in Malaysia. Based on the results from past study (Jäckle & Wenzelburger, 2015) religiosity is significantly correlated with attitudes toward homosexuals whereby an individual with higher religiosity has more unfavourable attitudes toward homosexual generally. With regards to the fact that intrinsic religiosity lead one perceive negative attitude toward homosexuality, Ng et al. (2015) purported that it could be the respondents who have unlikely attitudes toward homosexuals is significant correlated with intrinsic religiosity and Muslim revealed more on unfavorable attitudes toward homosexuals compared to other religious due to the strong Islamic belief that Muslims kept and restrain them to held negative prejudice toward homosexuals. With the support of past
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research and results that shown above, intrinsic religiosity is significantly positive correlated with attitudes toward homosexuals.

$H_2$: There is a significant negative relationship between gender role belief and attitudes toward homosexuals among undergraduate students in Malaysia.

As described in Table 4.3, there is a significant negative relationship between gender role beliefs and attitudes toward homosexuals among undergraduate students ($r = -.402, p < .001$). This indicates that the high score in LFAIS corresponds to liberal gender role belief tend to have more positive attitudes toward homosexuals among undergraduate students. Therefore, $H_2$ is supported.

Therefore, the result of this study significantly showed that respondents who are low in gender role belief which is more traditional in their gender role attitudes are more likely to have negative attitudes toward homosexuals. This finding is consistent with the past study conducted by Ito (2007) who found that the stronger the Japanese heterosexual males held in traditional gender role, more unfavorable attitudes toward homosexuals were perceived compared to those who encouraged in total equality between females and males in all aspects of life. Moreover, the findings of this study also showed consistent result with the study conducted by Stoof (2014) which found that those who held less liberal gender role belief have more negative attitudes toward homosexuality. This can be explained that individual that maintained their belief in stronger traditional gender role, he or she is expected to hold stricter and more valuable in gender identities and roles. Therefore, males with higher traditional gender role belief supported their masculinity and self-esteem and stayed strong in males’ own identity and responsibility (Stoof, 2014). Moreover, it is said that homosexuality can violate the nature of femininity and masculinity based on their cultural standards (Nierman, Thompson, Bryan & Mahaffey, 2007). Hence, people who perceived more liberal
gender role belief held less sexual prejudice toward homosexuals as compared to those who perceived more traditional gender role belief.

Table 4.3
Correlation among variables (N = 460)

<table>
<thead>
<tr>
<th>Variables</th>
<th>Mean</th>
<th>SD</th>
<th>1</th>
<th>2</th>
<th>3</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Religiosity</td>
<td>9.55</td>
<td>3.04</td>
<td></td>
<td>-0.002</td>
<td>1</td>
</tr>
<tr>
<td>2. Gender role belief</td>
<td>40.68</td>
<td>6.77</td>
<td>-0.078</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>3. Attitude toward homosexuals</td>
<td>3.71</td>
<td>1.33</td>
<td>0.38***</td>
<td>-0.402*</td>
<td>1</td>
</tr>
</tbody>
</table>

**. Correlation is significant at the 0.05 level (2-tailed).

***. Correlation is significant at the 0.001 level (2-tailed).

Research Question 2: Is there any significant gender difference in the attitudes toward gay men and lesbians among undergraduate students in Malaysia?

$H_3$: Males held more negative attitude towards gay men as compared to females.

Independent sample t-test was administered to analyze gender difference on attitudes toward gay men and attitudes toward women who were lesbians (refer to Table 4.4). There was a significant difference in attitudes toward gay men, $t(458) = 2.032, p = .043$. Male undergraduate students ($M = 3.96, SD = 1.40$) tend to score significant negative attitudes toward gay men compared to female ($M = 3.69, SD = 1.44$). Hence, $H_3$ is supported.

The result of independent sample t-test supported the hypothesis which is males held more negative attitude towards gay men as compared to females. The results of the study is in line with Bernardo’s (2013) study that conducted in Philippines which showed that women held more preferable attitudes toward homosexuals while male had more negative attitudes toward gay men. As consistent to our hypothesis, a study conducted in Malaysia (Azrowani Ulia et al., 2012) revealed that male perceived slightly more negative attitudes towards athletes who are non-heterosexuals. This can be explained by men’s nature in being easily repulsed in homosexual behavior and women’s nature of accepting others by their quality instead of their behavior. Gay men also obtained more social attention than social acceptance as compared to lesbians (Lau, 2013). Other than that, Kerns and Fine (1994) explained the result based on gender role socialization model where male and female perceived differently.
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on their gender role belief. It was described that homosexuality is perceived as a violation that can endanger heterosexual males’ social privilege and authority. Hence, non-homosexual males tend to have disgusted feelings toward gay men as it is considered as breaches from their traditional gender roles. Therefore, if compared with females, males tend to held more unfavorable attitudes toward gay men.

$H_4$: Males held more negative attitude towards lesbians as compared to females.

Table 4.4 showed that male undergraduate students score more negative attitudes toward lesbians ($M = 3.60, SD = 1.28$) as compared to female undergraduate students ($M = 3.58, SD = 1.40$), but this difference was not significant, $t(458) = .180, p = .857$. Therefore, the $H_4$ is not supported which males had more unfavourable attitudes toward lesbians as compared to females.

Results indicated that there was an insignificant gender difference in attitudes toward lesbians. Several past researches are corresponded with the findings (Bernardo, 2013; Kerns & Fine, 1994; Arndt & de Bruin, 2006). The insignificant finding can be explained that heterosexual males find that the thought of lesbians’ sex appealing and attractive (Whitley, Wiederman & Wryobek, 1999). The erotic value perceived on lesbians can improve one’s attitudes toward lesbians (Louderback & Whitley, 1997). Louderback and Whitley (1997) examined those males who were more likely to perceive less traditional gender roles tended to have higher eroticism attributed to female homosexuality. When the erotic value of female homosexuality has been controlled, males were least likely to have prejudice toward lesbians. Hence, the erotic value on lesbianism can affect males’ prejudice attitudes towards lesbians and this contributed to the insignificant gender difference in attitudes toward lesbians.
Table 4.4

<table>
<thead>
<tr>
<th>Variables</th>
<th>Mean</th>
<th>SD</th>
<th>t</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Male</td>
<td>Female</td>
<td>Male</td>
<td>Female</td>
</tr>
<tr>
<td>Attitudes toward gay men</td>
<td>3.96</td>
<td>3.69</td>
<td>1.40</td>
<td>1.44</td>
</tr>
<tr>
<td>Attitudes toward lesbians</td>
<td>3.60</td>
<td>3.58</td>
<td>1.28</td>
<td>1.40</td>
</tr>
</tbody>
</table>

***: Independent sample t-test is significant at the 0.001 level (2-tailed)

Research Objective: To determine the unique predictors of the attitudes toward homosexuals among undergraduate students within Malaysia.

Multiple regression. Table 4.5 showed the results of prediction between intrinsic religiosity, gender role belief and attitudes toward homosexuals among undergraduate students in Malaysia. The total variance explained by the model as a whole was 28.5% variance in explaining attitudes toward homosexuals which $R^2 = 0.285$, $F(2,456) = 90.95$, $p < .000$. Meanwhile, the results showed that gender role belief ($\beta = -0.374$, $p < .001$) tend to be the strongest predictor for attitudes toward homosexuals followed by intrinsic religiosity ($\beta = 0.352$, $p < .001$). The results of the study were supported by past studies which involved religiosity (Besen & Zicklin, 2007; Cardenas et al., 2012; Ng et al., 2015; Wu & Kwok, 2013; Yen et al., 2007), and gender role belief (Cardenas et al., 2012; Feng et al., 2012; Wellman & McCoy, 2014) as predictor of attitudes toward homosexuals.

In term of gender role belief, Feng et al. (2012) studied about homosexuality from three different Asian cities (Hanoi, Shanghai and Taipei) which involved adolescents and young adults from the cities. The findings showed that respondents who perceived homosexuality as a negative believed in more traditional Confusion values. This was explained from their strong belief that male should have a masculine role while female should have more feminine role but not vice versa. Those who showed opposite attitudes based on their actual sexual preference were viewed as violating the norm from the nature of the biological makeup. Furthermore, DeCarlo (2014) had conducted a similar research about gender role belief and attitudes toward homosexuals. Based on the results, participants that
held more unfavourable attitudes toward homosexuality had higher adherence to traditional
gender roles. In brief, gender role belief was able to predict the attitudes toward homosexuals
as people who perceived higher belief on traditional gender roles tend to show more negative
attitudes toward homosexuals while those who perceived higher belief in liberal gender role
held more favourable attitudes toward homosexuals.

In the aspect of intrinsic religiosity, a past study conducted by Detenber et al. (2010)
stated that negative attitudes toward homosexuals and the acceptance of homosexuals can be
predicted by intrinsic religiosity. The higher the level of intrinsic religiosity of an individual,
the more negative attitudes toward homosexuals held as they tend to believe that
homosexuals are “controllable” behaviour whereas homosexual is a choice and it was not
happened due to biological reason. Other than that, a similar study conducted by Ng et al.
(2015) showed that Muslims in Malaysia perceived unfavourable attitudes toward
homosexuals. This may be due to the fact that Muslims in Malaysia are force to practice their
religion every day since young which effect their perception toward homosexuals. Those who
practiced their religious everyday showed higher intrinsic religiosity and tend to believe that
homosexual is a sin and against the nature. Thus, people with high intrinsic religiosity held
more unfavourable attitudes toward homosexuals.

Table 4.5
Multiple regression analyses in predicting attitudes toward homosexuals from intrinsic
religiosity and gender role belief

<table>
<thead>
<tr>
<th>Criterion Variable</th>
<th>Predictor variable</th>
<th>F</th>
<th>$R^2$</th>
<th>df</th>
<th>$\beta$</th>
<th>t</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Model</td>
<td></td>
<td>90.95</td>
<td>.285</td>
<td>(2,457)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Attitudes toward homosexuals</td>
<td>Intrinsic religiosity</td>
<td></td>
<td></td>
<td></td>
<td>.352***</td>
<td>8.881</td>
<td>.000</td>
</tr>
<tr>
<td></td>
<td>Gender role belief</td>
<td></td>
<td></td>
<td></td>
<td>-.374***</td>
<td>-9.422</td>
<td>.000</td>
</tr>
</tbody>
</table>

Note: *** $p < .001$
Chapter Summary

The findings showed that there were significant relationships between intrinsic religiosity, gender role belief, and attitudes toward homosexuals. Significant positive relationship was found between intrinsic religiosity and attitudes toward homosexuals and gender role relief was negatively associated with attitudes toward homosexuals. Besides that, significant gender difference was found in the attitudes toward gay men. On the other hand, no significant gender difference was found in the attitudes toward lesbians. Lastly, gender role belief was found to be the strongest predictor followed by intrinsic religiosity in predicting attitudes toward homosexuals among heterosexual undergraduates in Malaysia.
Conclusion, Implications and Recommendations

Introduction
This chapter summarized the study based on the major finding of the study. Furthermore, the implications of the results in theoretical and practical context were also presented in this chapter. Lastly, the limitations and recommendations for the future study were stated as well.

Conclusion of the Study
Homosexuals were being mistreated and viewed as out-group by both the government and society in Malaysia. So, this research aimed to determine the relationships among intrinsic religiosity, gender role belief and attitudes toward homosexuals among heterosexual undergraduate students in Malaysia.

A sample of 460 undergraduate students was recruited through convenient sampling from 37 private and public universities and colleges. This study used quantitative approach and cross-sectional research design. Correlational survey design was also used. Attitudes Toward Lesbians and Gay Men Scale Revised 5-Item version (ATLG-R), Duke University Religion Index (DUREL), and Liberal Feminist Attitude and Ideology Scale (LFAIS): Gender Role subscale were the instruments chosen to measure the variables under study. The finalized sample consisted of 230 females and 230 males with the mean age of 21.02 years (SD=1.59). Majority of them were Chinese (76.7%), followed by Malays (10.4%), Indians (7.4%), and lastly other ethnics (5.5%). In religion groups, most of them were Buddhism (62.8%), followed by Christianity (13.9%), Islam (11.3%), Hinduism (6.1%) and lastly other religions (5.9%).

The result of correlation test showed that high score in intrinsic religiosity showed more negative attitudes toward homosexuals. Strong religious belief influenced and hindered their perceptions towards homosexuals especially when homosexuality is illegal in Malaysia.
On the other hand, high score in gender role subscales indicated more feminist in gender role belief which is more likely to have less negative attitudes toward homosexuals. This can be explained by those with traditional gender role belief perceived that homosexuality violated the cultural standards in the nature of femininity and masculinity. They held stricter and more valued in the inequality of gender identities and roles. So, those with traditional gender role belief held more negative attitudes while those with liberal and feminist gender role belief held more positive attitudes and accepting homosexuals. Besides that, findings showed that men held more negative attitudes towards both gay men and lesbians as compared to women. This is because men are more easily being repulsed about homosexual behaviour while women focused on other’s quality than their behaviour. Lastly, gender role belief was found to be the strongest predictor of the attitudes toward homosexuals, followed by intrinsic religiosity. This can be explained by the fact that Malaysia is a country that practiced medium masculinity culture (Ting & Ying, 2013).

Implications

Theoretical implication. The theory used in this research was attribution theory which investigated on how people explained others behaviour based on their personal thought and behaviour (McLeod, 2010). Based on the results, it revealed that intrinsic religiosity was correlated with attitudes toward homosexuals. It can be explained by attribution theory that intrinsic religiosity can be categorize as internal attribution because people with high religiosity tend to believe that homosexual happened due to personal traits. When homosexual is perceived as a choice, people with high religiosity will show more unfavorable attitudes toward homosexuals as the results shown intrinsic religiosity is positively correlated with attitudes toward homosexuals. People who have strong intrinsic religiosity tend to believed that homosexuality is a sinful behavior as people who are homosexuals choose this
sinful behavior which can be explained by internal attributions that a behavior happened due to personal traits and not because of environment or situational causes.

Meanwhile, based on the results, gender role belief is positively correlated with attitudes toward homosexuals and appeared to be the strongest predictor in explaining attitudes toward homosexuals. In attribution theory, those with strong traditional gender role belief will view homosexuality as a “controlled” behaviour as every gender has their own roles such as a man should take the masculine role while woman should take the feminine role. However, in this research feminist perceived gender as equals whereby male and female are free to choose their own gender role belief. As the results shown, gender role belief in term of feminist is negatively correlated to attitudes toward homosexuals which in brief, high gender role belief in feminist will have more favourable attitudes toward homosexuals. At the beginning of the study, attribution theory help to understand why this phenomenon happened and the results shown proved that gender role belief and intrinsic religiosity were correlated and both were able to predict the attitudes toward homosexuals among undergraduate students in Malaysia. Hence, this study was able to provide statistical evidence to support the link and thus strengthen the construct of attribution theory.

In this research, the findings were able to fill in the knowledge gap which most of the past researches conducted by considering only a single factor that influenced the attitudes toward homosexuals. This study in cooperated the variables of intrinsic religiosity and gender role belief in viewing undergraduates’ attitudes toward homosexuals. After testing those factors on the attitudes toward homosexuals, it showed that both factors were correlated with undergraduate students’ perception about homosexuality. This study also enriched the literature regarding research on homosexuality in Malaysia context as past studies that used attribution theory were conducted only in Western countries. This study further confirmed
that attribution theory is also applicable in this context. Thus, the results of the study are able to serve as a platform and as a reference for future studies.

**Practical implication.** Practically, the findings of the study can be used as a source of reference for planning awareness raising campaign or public health discourse which attempt to shape sexual behavior through altering public’s attitudes toward homosexuals. In Malaysia, there is only little exposure on the information about homosexuality that are shown to the public. By organizing awareness raising campaign, it can help in spreading the knowledge about homosexuals as well as in educating the public in having a better awareness and understanding on their prejudices toward homosexuals. This is important as changing the public’s attitudes by having better understanding on their formation of belief and attitude on homosexuals can help in reducing the prejudices and discriminations toward this sexual minority group in Malaysia.

Furthermore, the findings of this study can be used as a resource in planning the strategies of promoting positive social change. The society is encouraged to challenge their negative attitudes and to be open-mindedness in learning more about homosexuals and the issues they faced being a sexual minority group in Malaysia. By doing so, the society’s negative attitudes and prejudices toward homosexuals can be changed and have more acceptance towards homosexuals. Thus, the society can be educated to respect diversity, to be more sensitive on issues regarding homosexuals as well as to fight against anti-homosexual bias and victimization.

Lastly, this study can provide more updated information and results on this topic for future researches. Findings of this study can benefit and encourage more research to be done regarding this topic by being aware of the issues faced by this sexual minority group as there were limited studies on this sensitive topic of homosexuality in Malaysia. Hence, this study with updated results can be a guidance and reference for future researches to explore more in
the various factors affecting attitudes toward homosexuals in Malaysia or Southeast Asia context.

**Limitations and Recommendations**

Several limitations should be noted in interpreting the findings of the study. Firstly, the sample was recruited by convenient sampling and the findings may not accurately reflect the attitudes’ of the population studied. Bias may occur and affect the generalization of the findings. Therefore, random sampling is recommended in future research by getting the randomly selecting universities and colleges in Malaysia to study on the undergraduate students that are randomly selected about their attitudes toward homosexuals.

Besides that, this study used cross-sectional research design to study respondents’ attitudes toward homosexuals. However, cross-sectional study could not detect the causes and effects of variables. Thus, longitudinal research design is recommended for future study to able to detect the causes and effects of the variables studied.

Furthermore, the ethnicity ratio of the sample was not considered during sampling. The result may not accurately represent and generalize to the population studied. The ratio of the ethnic groups needs to be considered and would be recommended in future study so that the sample can show representativeness of the population.

Lastly, this study only focused on two variables that are intrinsic religiosity and gender role belief on the attitudes toward homosexuals. This may not able to understand holistically about the formation of attitude toward homosexual from the general public or majority heterosexual group. Therefore, factors such as mediated exposure of homosexual content, socioeconomic status and education level that were not studied and should be explored in the future.
Chapter Summary

In conclusion, the summary of this study on the purpose, method and findings was stated in this chapter. Besides that, theoretical implication of the findings on attribution theory was proved to support the construct of the theory and was able to fill in the knowledge gap on this topic. Furthermore, practical implication of the result are being a source of reference in planning awareness campaign and public health discourse as well as a resource in planning the strategies of promoting positive social change and providing a more update information for future researches. Moreover, the limitations of the study were the sampling method of using convenient sampling, the representativeness of the sample, research design and the variables studied. Lastly, the recommendations for improvement and better future studies were also presented.
References


FACTORS AFFECTING ATTITUDES TOWARD HOMOSEXUALS


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13178-015-0182-0


Appendices

Appendix A

UNIVERSITY TUNKU ABDUL RAHMAN
FACULTY OF ARTS AND SOCIAL SCIENCE

Introduction
This research study is being conducted to find out “The factors affecting attitudes toward homosexuals among undergraduate students in Malaysia” as a requirement for the subject UAPZ3023 Final Year Project II. In order to collect required data, your participation is needed for our research study.

Procedures
You will be asked to complete the questionnaire which consists of 4 sections. You are required to complete this questionnaire within 15 minutes. Questions in this questionnaire included details about religiosity, gender role belief, and attitudes toward homosexuals.

Benefits
There are no direct benefits to subjects. However, your participation will help us get more information and learn more about the relationships between religiosity, gender role belief and attitudes toward homosexuals so we would like to ask for your cooperation.

Confidentiality
All information provided will remain as private and confidential. The information given will only be reported as group data with no identifying information and only use for academic purpose. All information will be kept in secure location where only our group members will have the access to them.

Participation
The participation in this research study is voluntary and you have the right to withdraw or refuse to participate entirely without any loss to you.

Contact information
If you have any questions or concerns, please feel free to contact our group member at lindacoffee94@gmail.com (Teh Sin Ting).

_________________________                     _______________________
Participant’s Signature                        Date
Part A: Attitudes Toward Lesbians and Gay Men Scale (ATLG-R)

Instruction: The following items are regarding lesbians and gay men. Please read and give your personal opinion on each item. For each item, please circle the extend you agree or disagree with each statement.

<table>
<thead>
<tr>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Slightly Disagree</th>
<th>Neutral</th>
<th>Slightly Agree</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
</tr>
</tbody>
</table>

1. Sex between two men is just plain wrong.  
2. I think male homosexuals are disgusting.  
4. Male homosexuality is a perversion.  
5. Male homosexuality is merely a different kind of lifestyle that should not be condemned.  
6. Sex between two women is just plain wrong.  
7. I think female homosexuals (lesbians) are disgusting.  
8. Female homosexuality is a natural expression of sexuality in women.  
9. Female homosexuality is a perversion.  
10. Female homosexuality is merely a different kind of lifestyle that should not be condemned.
**Part B: Duke University Religion Index (DUREL)**

Instruction: The statements below are concerned with individual’s religious involvement. Please read and give your personal opinion on each statement by circling the one that matches to you the most.

1. How often do you attend church or other religious meetings?

<table>
<thead>
<tr>
<th></th>
<th>Never</th>
<th>Once a year or less</th>
<th>A few times a year</th>
<th>A few times a month</th>
<th>Once a week</th>
<th>More than once a week</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>1</strong></td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td></td>
</tr>
</tbody>
</table>

2. How often do you spend time in private religious activities, such as prayer, meditation or Bible study?

<table>
<thead>
<tr>
<th></th>
<th>Rarely or Never</th>
<th>A few times a month</th>
<th>Once a week</th>
<th>Two or more times a week</th>
<th>Daily</th>
<th>More than once a day</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>1</strong></td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td></td>
</tr>
</tbody>
</table>

3. In my life, I experience the presence of the Divine (i.e., God)

<table>
<thead>
<tr>
<th></th>
<th>Definitely not true</th>
<th>Tends not to be true</th>
<th>Unsure</th>
<th>Tends to be true</th>
<th>Definitely true of me</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>1</strong></td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td></td>
</tr>
</tbody>
</table>

4. My religious belief are what really lie behind my whole approach to life

<table>
<thead>
<tr>
<th></th>
<th>Definitely not true</th>
<th>Tends not to be true</th>
<th>Unsure</th>
<th>Tends to be true</th>
<th>Definitely true of me</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>1</strong></td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td></td>
</tr>
</tbody>
</table>

5. I try hard to carry my religion over into all other dealings in life

<table>
<thead>
<tr>
<th></th>
<th>Definitely not true</th>
<th>Tends not to be true</th>
<th>Unsure</th>
<th>Tends to be true</th>
<th>Definitely true of me</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>1</strong></td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td></td>
</tr>
</tbody>
</table>
### Part C: The Liberal Feminist Attitude and Ideology Scale: Domains and Items

#### Gender Roles

Instruction: The following statements are concerned with gender roles. Please circle your personal opinion on each item using the scale below.

<table>
<thead>
<tr>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Somewhat Disagree</th>
<th>Somewhat Agree</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
</tbody>
</table>

1. It is insulting to the husband when the wife does not take his last name.

2. If the husband is the sole wage earner in the family, the financial decisions should be his.

3. When they go out, a man and woman should share dating expenses if they both have the same income.

4. As the head of the household, the father should have final authority over his children.

5. Both husband and wife should be equally responsible for the care of young children.

6. The first duty of a woman with young children is to home and family.

7. A man who has chosen to stay at home and be a house-husband is not less masculine than a man who is employed full-time.

8. An employed woman can establish as warm and secure a relationship with her children as a mother who is not employed.

9. A woman should not let bearing and rearing children stand in the way of a career if she wants it.

10. Women should be more concerned with clothing and appearance than men.
Instruction: Please fill in your personal details or put a tick in the box given.

1. Age:___________

2. Gender:
   - [ ] Male
   - [ ] Female

3. Ethnicity:
   - [ ] Malay
   - [ ] Indian
   - [ ] Chinese
   - [ ] Others, Please state:_______________

4. Religion:
   - [ ] Islam
   - [ ] Buddhism
   - [ ] Hinduism
   - [ ] Christianity
   - [ ] Others, Please state:

5. Education Level:__________________________________________

6. Course:____________________________________________________

7. Year of Study: Year_____ Semester____

8. University:_________________________________________________

9. State (Where your university located):
   - [ ] Perlis
   - [ ] Pahang
   - [ ] Melaka
   - [ ] Sarawak
   - [ ] Kedah
   - [ ] Kelantan
   - [ ] Negeri Sembilan
   - [ ] Pulau Pinang
   - [ ] Terengganu
   - [ ] Johor
   - [ ] Perak
   - [ ] Selangor
   - [ ] Sabah

10. What is your sexual preference?
    - [ ] I’m attracted to men
    - [ ] I’m attracted to women
    - [ ] I’m attracted to both men and women

11. Do you have any family members/relatives/close friends who are attracted to same sex relationship?
    - [ ] Yes
    - [ ] No
Re: U/SERC/05/2016

15 January 2016

Mr Tan Soon Aun
Department of Psychology and Counselling
Faculty of Arts and Social Science
Universiti Tunku Abdul Rahman
Jalan Universiti, Bandar Baru Barat
31900 Kampar
Perak

Dear Mr Tan,

Ethical Approval For Research Project/Protocol

We refer to your application dated 14 January 2016 for ethical approval for your research project and are pleased to inform you that your application has been approved under expedited review.

The details of your research project are as follows:

<table>
<thead>
<tr>
<th>Research Title</th>
<th>Predictors of sexual prejudice and sexism among undergraduates in Malaysia</th>
</tr>
</thead>
<tbody>
<tr>
<td>Investigator(s)</td>
<td>Mr Tan Soon Aun (PI)</td>
</tr>
<tr>
<td></td>
<td>Ms Sarvarubini a/p Nainee</td>
</tr>
<tr>
<td></td>
<td>Ms Kung Yan Thin (UTAR student)</td>
</tr>
<tr>
<td></td>
<td>Ms Emily Goh Yi En (UTAR student)</td>
</tr>
<tr>
<td></td>
<td>Ms Teh Sin Ting (UTAR student)</td>
</tr>
<tr>
<td></td>
<td>Ms Ee Siu Kwin (UTAR student)</td>
</tr>
<tr>
<td></td>
<td>Ms Pua Xinyi (UTAR student)</td>
</tr>
<tr>
<td>Research Area</td>
<td>Social Sciences</td>
</tr>
<tr>
<td>Research Location</td>
<td>Private and local universities in Malaysia</td>
</tr>
<tr>
<td>No of Participants</td>
<td>900 undergraduates (Age 19 - 25)</td>
</tr>
<tr>
<td>Research Costs</td>
<td>Self-funded</td>
</tr>
<tr>
<td>Approval Validity</td>
<td>2016 – 2017</td>
</tr>
</tbody>
</table>

The conduct of this research is subject to the following:

(1) The participants’ informed consent be obtained prior to the commencement of the research.
(2) Confidentiality of participants’ personal data must be maintained; and
(3) Compliance with procedures set out in related policies of UTAR such as the UTAR Research Ethics and Code of Conduct, Code of Practice for Research Involving Humans and other related policies/guidelines.

Should you collect personal data of participants in your study, please have the participants sign the attached Personal Data Protection Statement for your records.
The University wishes you all the best in your research.

Thank you.

Yours sincerely,

[Signature]

Professor Dr Lee Sze Wei
Chairman
UTAR Scientific and Ethical Review Committee

c.c. Dean, Faculty of Arts and Social Science
    Director, Institute of Postgraduate Studies and Research
Request permission to use Attitude toward Lesbians and Gay Men

Linda Coffee <lindacoffee94@gmail.com>  
To: 13faculty@herek.net

2 December 2015 at 19:16

Dear Mr Herek,

Hello, I'm an undergraduate psychology student from Universiti Tunku Abdul Rahman, Malaysia. My group is currently doing our Final Year Project which required us to conduct a survey for the research topic "The factors affecting the attitudes toward homosexuals in Malaysia" under the supervision of Mr Tan Soon Aun. I wish to ask for your permission to allow us use The Attitudes toward Lesbian and Gay Men scale as part of our group's questionnaire.

We wish to get your approval to allow our group to use the assessment for our assignment in order to fulfill the requirements of the Bachelor of Social Science (Hons) Psychology.

Thank you.

_ Sin Ting, Teh

Gregory M. Herek, Ph.D. <13faculty@herek.net>  
To: lindacoffee94@gmail.com

2 December 2015 at 19:20

*********This is an automated reply*********

I am currently on sabbatical and will not return to campus until the beginning of the Spring quarter in late March of 2016.

Unless we've made prior arrangements, I'm not available for student meetings or research consults during my sabbatical period. I also won't be able to provide reviews of manuscripts or grant proposals.

If you have questions about my research or about policy related to sexual orientation, sexual minority issues, or AIDS-related stigma, you may find some useful information on my website: http://psychology.ucdavis.edu/rainbow
and blog: http://www.beyondhomophobia.com/blog/

If you're looking for one of my published papers or information about a scale I've developed, you may be able to find what you need at: http://psychology.ucdavis.edu/rainbow/html/library.html

More information about the ATLG can be downloaded in PDF format using this link: http://psychology.ucdavis.edu/faculty_sites/herek/atlg/atlg_2011.pdf

Please note that it's not necessary to obtain my permission to use the ATLG or my other published scales in not-for-profit research conducted by doctoral-level researchers, including graduate students and post-docs.

Gregory M. Herek, Ph.D.
Professor of Psychology

https://mail.google.com/mail/u/0?ik=eea996e20b&view=pt&search=inbox&th=151626f3b9a627f&si=m1=151626f3b9a627f&si=m1=15162fbc8170551
**FACTORS AFFECTING ATTITUDES TOWARD HOMOSEXUALS**

**Asking for permission to use Duke University Religion Index**

2 messages

Linda Coffee <lindacoffee94@gmail.com> 28 November 2015 at 00:25
To: koenig@geri.duke.edu

Hello, I'm an undergraduate psychology student from Universiti Tunku Abdul Rahman, Malaysia. My group is currently doing our Final Year Project which required us to conduct a survey for the research topic "The factors affecting the attitudes toward homosexuals in Malaysia" under the supervision of Mr Tan Soon Aun. I wish to ask for your permission to allow us use The Duke University Religion Index (DUREL) as part of our group's questionnaire.

We wish to get your approval to allow our group to use the assessment for our assignment in order to fulfill the requirements of the Bachelor of Social Science (Hons) Psychology.

Thank you.

Harold Koenig, M.D. <harold.koenig@duke.edu> 28 November 2015 at 02:57
To: Linda Coffee <lindacoffee94@gmail.com>

Linda – you have permission and approval. HK

From: Linda Coffee [mailto:lindacoffee94@gmail.com]
Sent: Friday, November 27, 2015 11:25 AM
To: Harold Koenig, M.D.
Subject: Asking for permission to use Duke University Religion Index

Hello, I'm an undergraduate psychology student from Universiti Tunku Abdul Rahman, Malaysia. My group is currently doing our Final Year Project which required us to conduct a survey for the research topic "The factors affecting the attitudes toward homosexuals in Malaysia" under the supervision of Mr Tan Soon Aun. I wish to ask for your permission to allow us use The Duke University Religion Index (DUREL) as part of our group's questionnaire.

We wish to get your approval to allow our group to use the assessment for our assignment in order to fulfill the requirements of the Bachelor of Social Science (Hons) Psychology.

Thank you.
Ask permission to use Liberal Feminist Attitude and Ideology Scale

Linda Coffee <lindacoffee94@gmail.com> 28 November 2015 at 00:33
To: bmorgan@uw.lax.edu

Hello, I'm an undergraduate psychology student from Universiti Tunku Abdul Rahman, Malaysia. My group is currently doing our Final Year Project which required us to conduct a survey for the research topic "The factors affecting the attitudes toward homosexuals in Malaysia" under the supervision of Mr Tan Soon Aun. I wish to ask for your permission to allow us use The Liberal Feminist Attitude and Ideology Scale as part of our group's questionnaire.

We wish to get your approval to allow our group to use the assessment for our assignment in order to fulfill the requirements of the Bachelor of Social Science (Hons) Psychology.

Thank you.

Sin Ting, Teh

Morgan, Betsy <bmorgan@uw.lax.edu> 28 November 2015 at 04:50
To: Linda Coffee <lindacoffee94@gmail.com>

I'm happy to have it you use it!

[Quoted text hidden]

Betsy L. Morgan, PhD
Interim Provost & Vice Chancellor for Academic Affairs (IPVC)
University of Wisconsin-La Crosse
227 Graff Main Hall
1725 State St., La Crosse, WI 54601
608-785-8042; bmorgan@uw.lax.edu

Please direct scheduling requests to Lisa Severson (lseverson@uw.lax.edu)