SELINUS UNIVERSITY
OF SCIENCES AND LITERATURE

GETTING TO ZERO: ARE WE PREPARED?

A CROSS-SECTIONAL STUDY OF KNOWLEDGE, PERCEPTION AND ATTITUDES TOWARDS SEXUALLY TRANSMITTED DISEASES AND HIV/AIDS AMONG THE TRANSGENDER COMMUNITY IN SABAH, MALAYSIA

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Abstract

The present study was designed to describe the status of sexually transmitted disease and HIV/AIDS perceptions, attitudes, and knowledge among the transgendered community in Sabah, Malaysia. The purpose of the present study was to determine the perception and attitudes towards sexually transmitted diseases and HIV/AIDS among the transgender community in Sabah, Malaysia. This was done using a descriptive cross-sectional study with 136 participants. It was found that knowledge of sexually transmitted disease and HIV/AIDS transmission, perceptions of sexually transmitted disease and HIV transmission, and perceptions of individuals with sexually transmitted disease or HIV/AIDS is influenced by age and awareness of another person's status, but not gender identity or relationship status. Recommendations were offered for future actions.

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Chapter 1: Introduction

Chapter Overview

It has been noted that, despite the decrease in prevalence, sexually transmitted disease and HIV/AIDS are still major health concerns across the world (Maynard & Ong 2016). The present study was designed to describe the status of sexually transmitted disease and HIV/AIDS perceptions, attitudes, and knowledge among the transgendered community in Sabah, Malaysia. Most studies, it is recognized, considers the outlook of the 'outside' community in relation to transgenderism. The present study is unique in that it considers the outlook of the transgendered community to the rest of the public. This chapter is important because it provides background information regarding the study, as well as the basic tenets associated with the study for guidance in the completion of the analysis.

Background

HIV/AIDS

At the beginning of the 21st century, Malaysia was engaged in an epidemic relating to HIV transmission. Following the first HIV case documentation in Malaysia in 1986, it has spread and, by 2000, over 30,000 new cases had been reported, where 12.3% of the HIV cases had developed into AIDS (Yao 2016). Deaths attributable to HIV/AIDS accounted for over 3,500 deaths within the country and the threat of HIV was not reversed until 2002. During the peak period of the epidemic, HIV notification rates were about 28 people per 100,000 individuals (Yao 2016). In 2014, the HIV notification rate decrease to about 12 people per 100,000 individuals and the number of new cases of HIV fell by about 50.0%, plateauing to approximately 3,500 new cases per year (Yao 2016). However, the AIDS notification rate has consistently been approximately 4 people per 100,000

individuals (Yao 2016). As of 2014, only about 47.6% of all HIV patients received treatment in Malaysia (Yao 2016), making this still a prevalent problem within the country.

Sexually Transmitted Diseases

The top two sexually transmitted diseases, besides HIV, within Malaysia are syphilis and gonorrhea (Yao 2016). Syphilis is spread through sexual contact. It is noted that incidents of syphilis in Malaysia is underreported, but, from 1990 to 1999, the syphilis notification rate ranged from 9.0% to 11.0% annually, with higher notification rates being in certain populations, such as those engaged in prostitution (Yao 2016). However, reported incidents of syphilis has decreased from about 8 people per 100,000 in 2000 to about 6 people per 100,000 in 2001, to about 3 people per 100,000 in 2005 and 2006 (Yao 2016).

Gonorrhea was also reported to be steadily declining within Malaysia. In 2000, the incidence rate was about 6 people per 100,000 individuals, then decreased to 2 people per 100,000 individuals in 2005 and 2006 (Yao 2016). It has been suggested that the decrease in gonorrhea may be attributed to the availability of antibiotics. However, there are some strains that are resistant to antibiotics, so it is highly possible that this rate will increase again (Yao 2016).

Problem and Purpose Statements

As seen, there is widespread information regarding the prevalence of sexually transmitted disease and HIV/AIDS across the general population of Malaysia. However, the transgender population, which is historically at higher risk, has fewer statistics available. Moreover, there is little known about this issue within the transgender community in Sabah. This may be attributed to increased stigma for the transgender community and decreased outlets for detection and treatment as a result of discrimination (Wickersham et al. 2017;

Vijay et al. 2018). The purpose of the present study was to determine the perception and attitudes towards sexually transmitted diseases and HIV/AIDS among the transgender community in Sabah, Malaysia.

Research Questions and Hypotheses

The research questions and corresponding hypotheses were:

RQ1: What association exists between gender identity and perceptions and attitudes towards sexually transmitted diseases and HIV/AIDS among the transgender community in Sabah, Malaysia?

H_O: There is no association between gender identity and perceptions and attitudes towards sexually transmitted diseases and HIV/AIDS among the transgender community in Sabah, Malaysia.

H_A: There is a significant association between gender identity and perceptions and attitudes towards sexually transmitted diseases and HIV/AIDS among the transgender community in Sabah, Malaysia.

RQ2: What association exists between age and perceptions and attitudes towards sexually transmitted diseases and HIV/AIDS among the transgender community in Sabah, Malaysia?

H_O: There is no association between age and perceptions and attitudes towards sexually transmitted diseases and HIV/AIDS among the transgender community in Sabah, Malaysia.

H_A: There is a significant association between age and perceptions and attitudes towards sexually transmitted diseases and HIV/AIDS among the transgender community in Sabah, Malaysia.

RQ3: What association exists between relationship status and perceptions and attitudes towards sexually transmitted diseases and HIV/AIDS among the transgender community in Sabah, Malaysia?

H_O: There is no association between relationship status and perceptions and attitudes towards sexually transmitted diseases and HIV/AIDS among the transgender community in Sabah, Malaysia.

H_A: There is a significant association between relationship status and perceptions and attitudes towards sexually transmitted diseases and HIV/AIDS among the transgender community in Sabah, Malaysia.

RQ4: What association exists between knowledge of sexually transmitted disease and/or HIV/AIDS status and perceptions and attitudes towards sexually transmitted diseases and HIV/AIDS among the transgender community in Sabah, Malaysia?

H_O: There is no association between knowledge of sexually transmitted disease and/or HIV/AIDS status and perceptions and attitudes towards sexually transmitted diseases and HIV/AIDS among the transgender community in Sabah, Malaysia.

H_A: There is a significant association between knowledge of sexually transmitted disease and/or HIV/AIDS status and perceptions and

attitudes towards sexually transmitted diseases and HIV/AIDS among the transgender community in Sabah, Malaysia.

Organization of the Remainder of the Study

The remainder of the study consists of four chapters. The subsequent chapter is the literature review, in which the theoretical foundation and review of the current literature will be presented. The third chapter is the methodology, in which the methods for the completion of the study will be presented. The fourth chapter is the findings and discussion, in which the outcomes of the data analysis will be presented and discussed. The final chapter is the conclusions and recommendations, in which the research questions will be answered and recommendations made for future actions.

Chapter 2: Literature Review

Chapter Overview

The present chapter consists of two major topics: the health belief model and transgenderism in Malaysia. It is recognized that in order to understand the perceptions within the population towards sexually transmitted disease and HIV/AIDS, it is necessary to understand the population of interest itself. The inclusion of the health belief model is used to explore relationships between perceptions, knowledge, and attitudes of sexually transmitted disease and HIV/AIDS among the transgendered population in Sabah, Malaysia.

Health Belief Model

The health belief model is used to explain and predict health-related behaviors. It was developed by social psychologists during the 1950s (Champion et al. 2015). Under this model, it is believed that the perceptions people have regarding health problems, benefits of action, and self-efficacy can explain the level of engagement in health promotions (Mohamed et al. 2016). The theoretical constructs of the health belief model are based on cognitive psychology (Janz & Becker 1984). In fact, during the early 20th century expectations were impacted by reinforcement, not behavior. Under this context, it was believed that mental processes represent cognitive theories viewed as being expectancy- value models due to the assumption that behavior is a function of the perception of the expected result and that this result can be achieved by undertaking a particular action (Rosenstock 1974). Therefore, the constructs are based on perceived susceptibility, perceived severity, perceived benefits, perceived barriers, modifying variables, cues to action, and self-efficacy (Champion et al. 2015).

Perceived Susceptibility

Perceived susceptibility refers to the risk of developing a health problem, such as contracting HIV or another sexually transmitted disease. Under the health belief model, it is predicted that individuals that perceive that they are susceptible to a health problem will seek to reduce their risk (Rosenstock 1974). Individuals with low perceived susceptibility may be in denial that they are at risk. On the other hand, some individuals may acknowledge the risk, but perceive the likelihood of contracting the illness is not likely.

Thus, individuals that perceive their risk of contracting a particular illness is low are more likely to engage in high risk behaviors and vice versa (Champion et al. 2015).

Perceived Severity

Perceived severity refers to the perception of the severity of a particular health problem and the consequences. Under the health belief model, it is proposed that individuals that recognize a health problem as being more serious are more likely to engage in low risk behaviors to prevent contraction of the illness or to reduce the severity of the existing problem (Janz & Becker 1984). The perceived severity is based on beliefs regarding the disease itself and how it will impact daily life. For example, people may perceive HIV as more severe than a more easily treated illness, such as syphilis or gonorrhea. The perceived threat is the combination of perceived susceptibility and perceived severity. Both of these variables (perceived susceptibility and perceived severity) is based on knowledge of the condition. Under the health belief model, it is predicted that a higher perceived threat leads to a greater likelihood of engagement in contraction prevention (Janz & Becker 1984).

Perceived Benefits

Health-related behaviors are influenced by the perceived benefits of taking action for prevention and/or treatment. The context of perceived benefits is in reference to the assessment of an individual of the efficacy or value in engaging in a behavior to decrease risk (Glanz & Bishop 2010). Thus, if it is believed that a particular action will lead to a reduced susceptibility to a health problem, it is more likely that the individual will engage in that action.

Perceived Barriers

It is also noted that health-related behaviors represent a function of perceived barriers to action. Under this context, perceived barriers are the assessment of the individual of the obstacles faced during behavioral change and, even if the individual perceives that there is a high risk of contracting a condition and a particular action would reduce the risk, if there are barriers in existence, there may be a prevention in engagement of the health-promoting behavior (Janz & Becker 1984). Thus, the perceived benefits must be more than the perceived barriers in order to lead to behavior change (Glanz & Bishop 2010). Perceived barriers typically include perceived expense, inconvenience, danger, and discomfort. Although not listed, embarrassment and fear can also be barriers to treatment (Janz & Becker 1984).

Modifying Variables

Modifying variables are individual characteristics, such as demographic, structural, and psychosocial variables, and can affect perceptions of health-related behaviors (Glanz & Bishop 2010). Demographic variables may be age, gender, ethnicity, or religious beliefs. Structural variables may be knowledge of a disease and prior contact. Psychosocial

variables may be social class, peer pressure, and personality. Under the health belief model, it is suggested that modifying variables have an indirect impact on health-related variables by affecting perceptions (Glanz & Bishop 2010).

Cues to Action

Under the health belief model, a cue (also known as a trigger) is required to prompt health-promoting behavior engagement. Cues to action may be internal (physiological) or external (events or information from others) and promote engagement in health-promoting behavior. Cue to action intensity is variable based on the individual and their unique perceptions (Janz & Becker 1984).

Self-Efficacy

In 1988, self-efficacy was added to the health belief model (Glanz & Bishop 2010). Self-efficacy is the perception of the individual of his/her own competence to successfully engage in a behavior. The purpose of adding self-efficacy to the health belief model was to improve the understanding of individual differences in health-related behaviors. This is because of the expansion of the health belief model from one-time behavior changes (such as cancer screenings) to long-term behavior changes (such as dietary changes or safe sex precautions). The developers of the health belief model recognized that confidence in the ability to effect change (self-efficacy) was critical in achieving positive health-promoting behaviors. Thus, self-efficacy was a stronger predictor of positive behaviors than beliefs regarding future negative health outcomes (Glanz & Bishop 2010).

Transgenderism in Malaysia

Historically, males have performed a dominant gender duty, while females have actually carried out a passive gender role. Due to the fact that of the fostering of these roles

across different period, it has been suggested that this hierarchical structure must show up natural (Frye 1983). As has become apparent in recent decades, those 'natural' categories can be challenged through social movements, which has led to legislation increasing equality between males and female, leading to arguments that there is no need for two genders as they are both treated equally – in theory. Normative gender conceptions are based upon the responsibilities of both females and males. Nonetheless, this sort of accountability may differ based upon different injustice attributes (such as age, course, race). According to Hurtado (1989), gender is seasoned in different ways by females as an outcome of the connections held with males (no matter race) and, traditionally, females have actually been used to raise the power of males.

According to Solnick and Schweitzer (1999), in final notice games, advocates offered even more cash to attractive participants and even more unjust deals were accepted from appealing proposers, suggesting that there is quality to the concept of 'beauty premium,' showing that eye-catching individuals are generally dealt with in a various (and commonly, much better) method than unappealing people. Hence, beauty is a crucial component of communication and a major construction of femininity and masculinity.
According to Langlois et al. (2000), there is a greater tendency of bias towards attractive individuals as being healthier physically, more fertile, better performers at work, and/or better at socializing. Body image is impacted by different characteristics, including "sex, media, parental relationship, and puberty as well as weight and popularity" (Graham 2000, p. 1189).

Gender identity is obtained with internalizing external understanding, in addition to social construction. It has been argued that gender identity is never fully obtained and must

be consistently reassessed based on social interactions. Alsop et al. (2002) mentioned that "gender is component of an identity woven from a complicated and specific social whole, and requiring local and very specific readings" (p. 86). Fenstermaker and West (2002) insist that gender is created individually based on gendered communications accepted others, in addition to various other identifications held by the individual. It has been discovered that race, gender, class, and other fascisms might represent omnirelevant categories, regardless of not all being salient in all sets of social relationships of inequality. Hence, overbearing features do not have additive or multiplicative effects, but are concurrently reliant for the development of an unique fascism through intersectionality, showing that the crossway of social identities are constant because of adjustments in communications (Fenstermaker & West 2002). Nonetheless, race does affect exactly how gender is viewed, where, according to Fenstermaker and West (2002), there is rejection of advantage for females of color. Minority females are commonly viewed solely as workers or sexual objects, allowing males to display elevated power and sexual aggression, yet not allow for emotional attachments. This concept is particularly true in between minority females and White males. White females are thought about responsible for their typical qualities of being subservient to White males, whereas females of color are taken into consideration accountable for the representation of sex-related objectification. Therefore, per Fenstermaker and West (2002), gender characteristics are not repaired and have various accountability elements. LaFrance et al. (2004) argued that the concept of 'gender identity' enables people to have cost-free expression in their mindsets regarding their present condition, recommending that it is more vital to base the range of gender from social construction of objectivity to self-identification and gender expression.

Gender neutrality is based on the concept that language, social institutions, and policies should avoid distinguishing gender roles. Based on this type of model, the concept of 'biological gender' is impossible because the biological characteristics of an individual are not related to gender characteristics and vice versa. In various social orders, demonstrating qualities not standard of one's sex-related introduction might be a social problem. In humanism, this identifying is recognized as sexual introduction questions and is a little bit of socialization to meet the mores of an overall populace. Non-standard direct may be viewed as typical for homosexuality, in spite of the way that sex explanation, sex identification and sexual discussion are extensively identified as particular ideas. When sexuality is represented in respect to oppose option (as in very early sexology considers), male homosexuality is analyzed as effeminacy. Social dissatisfaction with ridiculous maleness may be given as 'machismo' or by neologisms, as an example, 'testosterone poisoning' (Vandello et al. 2008).

In today's society, females are generally deemed nurturers and caretakers, whereas males are commonly viewed as providers and protectors – behaviors that are typically instilled in youngsters by the time they are 10 or 11 years old (Berkowitz, Manohar & Tinkler 2010). Berkowitz et al. (2010) argues that gender roles represent the acceptance of social construction of roles, starting that "the gender order is hierarchical in that, overall, males dominate females in terms of power and privilege; yet multiple and conflicting sources of power and oppression are intertwined, and not all males dominate all females. Intersectionality theorizes just how gender intersects with race, ethnic background, social class, sexuality, and country in variegated and situationally contingent ways" (p. 133).

Presently, distinctions in between 'sex' and 'gender' differences have been criticized as being deceptive since these terms recommend that behavioral features may be segmented based upon biological and cultural aspects, instead of being considered as phenotypes, which involve links being made between nature and nurture (Francis & Kaufer 2011).

Delfabbro et al. (2011) recommended that there is a close web link in between body image and psychological wellness throughout the adolescent years and that this web link might be harmful in situations of body discontentment. According to Delfabbro et al. (2011), the high school experience of teenagers is connected to perceived body image, finding that during the early teenage years, there are stable perceptions of body photo and physical good looks. As per Delfabbro et al. (2011), perceived body image tends to become negative as the individual is in the 15 to 18 years of age range, potentially causing psychological problems that may continue into adulthood.

Per Ma et al. (2017), attractiveness in relation to females influences the reciprocation of trust. On the other hand, the physical attractiveness of males is indispensable in terms of mate preferences for females, suggesting that attractive males are commonly treated better, despite not demanding differential treatment (Ma et al. 2017).

Gender duties are affected by gender identity, which refers to the individual's identification with a particular gender and social gender function. Despite more recent controversy by some feminists, the term 'woman' has been interchangeable with 'female body' (Mikkola 2008). In addition, regardless of generous qualitative researches checking out gender representations, feminists challenge the leading beliefs regarding organic sex and gender functions since organic sex is straight linked to social norms and expectations. According to Butler (1988), the idea of 'female' is extra tough because of the social standpoint of females

as a social group, in addition to a sense of self, or subjective identification. Social identity, therefore, describes typical recognition of a social classification that yields an usual society. Thus, with social identity concept, it has actually been comprehended that the self-concept is obtained from social team and group subscription, generally demonstrated through group processes and the manner ins which inter-group connections have a substantial impact on self-perception and behavior. Therefore, these groups give interpretations of being and anticipated practices (Butler 1988). Because of these meanings, gender inequality continues, and social building leads to the identification of the function of individuals in culture. Changes in gender roles may additionally be connected to inspirations by women's rights and various other related motions. These changes have generated brand-new financial landscapes and the entryway of females in the work environment. Generally, the male and female function remained in full opposition. Males were deemed being the primary provider of the family members, whereas females were considered the caretakers of the residence and family members. A lot more just recently, the gender function department is not as noticeable, where even more people are adopting even more non-traditional gender duties in order to handle obligations within the marital relationship. The innovative view concerning gender duties is based on equal rights. It is typically seen in today's society that households with males and females have both as suppliers for the family members.

Therefore, more females are entering the workforce and more males are adding to house duties. Regardless of these developments, there is still a gender role space (Jackson 2012).

Sexism refers to discrimination based on gender and can affect anyone, yet primarily impacts females. Sexism has been linked to both stereotyping and gender roles (Nakdimen 1984). In many instances, sexism is based on the belief that one gender is

superior. Sexual and female objectification are critical in femininity theory and feminisms-related theories. Sexual objectification, per many femininity, has been influential in gender inequality. Medical scholars assert that objectification can lead to health (both physical and mental) risks in females (Fredrickson & Roberts 1997; Szymanski, Moffitt & Carr 2011). When a female is viewed as an object of sexual desire, as opposed to an entire person, the action being taken is female sexual objectification (Fredrickson & Roberts 1997; Szymanski et al. 2011). Males that engage in objectification of females tend to judge all females in a sexual manner or based on looks only (aesthetically) in public. Objectification that occurs within the media may be subtle (such as the focus on a particular gender) or explicit (Galdi, Maass & Cadinu 2014).

According to scholars, such as Adler et al. (1992), Herdt (1994), and Paek et al. (2011), the vast majority of children have learned to categories themselves by their gender by three years of age. Gender socialization begins at birth, where children begin learning gender stereotypes and roles from the environments in which they live. In a traditional viewpoint, males (also viewed as masculinity) are taught to manipulate their surrounding environment (social and physical) through the use of physical strength and/or dexterity, whereas females (also viewed as femininity) are taught to present themselves as objects for viewing purposes (McNiel, Harris & Fondren 2012). The different roles portrayed by males and females suggest that these roles impact behavior yet are mediated by processes related to psychology and sociology. Herdt (1994) argued that gender roles are part of daily life and were extended as a result of general labor division. However, Cherlin (2010) suggested that the social construction of gender roles are hierarchical and characterized as being advantageous to males. These hierarchies are known as 'patriarchy,' defined as "a social

order based on the domination of females by males, especially in agricultural societies" (Cherlin 2010). Changing gender roles have led to increased equality. However, this has been a long road. Historically, individual spouses have been expected to fulfil specific functions according to society. With the settling of the United States, the roles for each spouse to embody were specified, where husbands were the wives and providers were the family and home caretakers. Today, these roles have changed and, in some cases, have reversed (Espenshade 1985). Changes in gender roles is commonly in response to societal change. The 21st century, for example, has ushered in a shift in gender roles as a result of changing and new family structures, media exposure, and education. In some cases, females reported earning more than their male counterparts. Part of this has been attributed to the emphasis of education and college accessibility. This has allowed females greater opportunities to further their education, as well as become more involved in recreational activities previously believed to be primarily for males. At the same time, familial structures are changing and there are an increasing number of single parent households (both female and male). Overall, males have become more involved in child rearing (Oakley 2016). This, in its own way, is a form of gender fluidity.

Men are commonly portrayed as being in an upright position, aware/conscious of surroundings, having control of their bodies, having an assertive/mean/serious facial expression, hands in pocket or tightly gripping an object, and/or physically active. Thus, masculinity in advertising is commonly depicted through showing perceived rational/independent thinking, strength, effectiveness, bravery, taking initiative, and/or adventurous behaviors (Ferniano & Nickerson 1989). Since the 1980s, the bodies of men have been more frequently used in advertising, showing a similarly idealized body image as

that portrayed of women (Elliott & Elliott 2005), suggesting that men face social pressure to endorse traditional masculinity in advertising. Martin and Gnoth (2009) stated that feminine men expressed a private preference for feminine models, but a preference for traditional masculine models when concerned that others would view them as feminine. In other words, per Martin and Gnoth (2009), social pressure impacted the endorsement of traditional masculine norms.

Through a content analysis study conducted by Patterson and England (2000) based on male images within magazines geared towards men, most of the bodies within the advertisements were not considered 'ordinary,' but instead were muscular. Through this study, it was concluded that male bodies in advertising were typically objectified and depersonalized, which confirm the results of the Kolbe and Albanese (1996) study.

Social constructionism refers to the social construction of reality and refers to a theory of knowledge within both sociology and communication theory. The social constructionism theory focuses on the assumption that humans rationalize experiences through the creation of models of the social world and propose these models through language (Leeds-Hurwitz 2009). Thus, social constructs may be different based on both the society and events that are occurring. Social constructs may be weak or strong. Weak social constructs are reliant on brute facts, which are difficult to explain, or institutional facts, which are formed as a result of social conventions. Weak social constructs, while typically accurate, tend to vary based on the societal norm. An example of a weak social construct is citizenship or tenure at a job. However, not all countries have the same requirements for citizenship and not all companies have the same requirements for tenure. Since there is such variability of these type of constructs, they are deemed as 'weak,' because they can be

changed easily. Strong social constructs are reliant on human perspective and knowledge that does not simply exist, but is constructed through society (Fairhurst & Grant 2010). Strong social constructs are much harder to change. An example of a strong social construct is racism or gender inequality. Work has been done to eradicate these two issues, they still remain. Ultimately, a social construct (construction) is based on the meaning, connotation, or notion placed on a particular object or event by society and has been adopted by the people within that society in respect to how the object or event is viewed. Thus, a social construct is an idea that is accepted as natural, but may or may not represent the reality shared by others outside the society (Shotter & Lannamann 2002).

In the social sciences, interpretivism suggests that social realms cannot be studied with the scientific method used with the natural world. Thus, interpretivism proposes that social science research must be based on the awareness that the perception of the social world is shaped through language, concepts, and ideas associated with research (Macionis & Gerber 2011). Interpretivism, on the other hand, allows meaning to be drawn from subjective experiences of individuals that engage in social interaction.

Prevalence and Stigma

Wei et al. (2012) acknowledged that gender and sexual orientation impact sexuality, but that sexual behavior and gender relation is impacted by sociocultural factors. Social practices, such as transgenderism, are impacted frequently by religion. Malaysia, traditionally a Islamic state, has a low tolerance of a transgender community, often leading to tension within society. Wei et al. (2012) also acknowledged that gender and sexuality discussions are highly influenced by Western practices and, in some cases, perspectives and

practices regarding gender and sexuality are not consistent with either Christian or Islamic values because of differences in adherence.

Despite the conflicts with religious beliefs in Malaysia, there are numerous open social transitions in existence. The Malaysian transgendered community is challenged in that they are excluded from decision-making processes that impact their well-being. Moreover, the general public typically shuns this community, leading to increased social stigma and marginalization, further contributing to high-risk behavior, such as unprotected sexual relations and drug use, contributing to the incidence of sexually transmitted disease and/or HIV/AIDS (Bockting et al. 1998). Transgendered Malaysians are often of low social status and work as sex workers because of rampant employment discrimination. The general public asserts that the problems faced by transgendered individuals are of their own doing (Wei et al. 2012).

Within Sabah, Malaysia, there were an estimated 100,000 transgendered individuals in 2011 and, within the capital alone, there are an estimated 50,000 (Ng 2011). As a result of these estimates, it is suggested that at least one individual of every 200 individuals within Malaysia is transgendered (Wong 2005). The increasing number of transgendered Malaysians has caught the attention of the government. The Women and Family Development Ministry announced in 2000 that it would investigate problems within this community and provide assistance (Ministry of Health Labor and Welfare Japan 2008).

Per Islamic beliefs, people can be “male, female, khunsa (hermaphrodites), and mukhannis (males whose behavior is closely aligned to women’s behavior) or mukhannas (an effeminate male who does not want to change his sex)” (Wei et al. 2012). Under this belief system, biology represents destiny and, as a result, khunsas are able to undergo

surgery to have a single gender, but gender change is not permitted. In the Islamic belief system, a gender change operation would modify the 'natural' being of the individual, which is an abomination. Therefore, cross-dressing is also seen as an abomination and, under this precept, Muslim transgendered individuals are perceived to have violated Islam, despite there being no specific guidance in the Shariah (Wei et al. 2012). Wei et al. (2012) acknowledged that over half of all Malaysian society members do not accept transgendered individuals on the basis of religious beliefs. The top reasons for accepting transgenderism was that transgendered individuals are also human beings, transgendered individuals have the right to be who they are, and that transgendered individuals present no threat to the general public. The top reasons for not accepting transgenderism was that transgenderism is against Malaysian law and religious tenets, low social status, and as a reason of insanity.

Despite the lack of recognition within the general public, it has been acknowledged that the Malaysian government needs to pay more attention to the needs of this community, especially in relation to health issues (including sexually transmitted disease and HIV/AIDS status) (Wei et al. 2012).

Health Assessments and Treatment

Rutledge et al. (2018) acknowledged that transgendered community, particularly women, are at high risk for HIV infection within Malaysia. Rutledge et al. (2018) found that this population had additional characteristics that make them at higher risk, including engaging in sex work, social instability, and substance abuse. While efforts have been made to increase HIV testing opportunities, these efforts have been inadequate due to stigma and discrimination (Rutledge et al. 2018). While this stigma and discrimination occurs in multiple aspects of the transgendered community, Wong and Nur Syuhada (2011) noted

that there is also a strong stigma regarding HIV/AIDS, regardless of the community in which it occurs.

Within the Wong and Nur Syuhada (2011) study, it was noted that knowledge regarding HIV/AIDS is adequate and that other studies regarding transmission presented inaccurate beliefs created by fear and stigma, such as that of Boer and Emons (2004). However, in the Wong and Nur Syuhada (2011) study, adequate HIV/AIDS knowledge was not associated with stigma or discriminatory attitudes, even as many participants presented with an attitude of unease with others with HIV/AIDS. This unease was based on two separate forms – extreme fear of the lethality and deleterious effects of HIV infection and extreme fear of potential contagion. Therefore, many people will not take unnecessary risks which may lead to HIV transmission. Wong and Nur Syuhada (2011) noted the need to emphasize that HIV transmission cannot occur through casual or social contact, but the fear is still there for many individuals. Stigmatization and discrimination against people with HIV/AIDS is profound in the general public and this is worse for the transgendered community. However, within the transgendered community, there may be less stigma and discrimination. Per Wong and Nur Syuhada (2011), stigma and discrimination of those with HIV is dependent upon how it was contracted. Accidental transmission through medical/dental care is viewed more favorably and tolerantly than transmission through drug use (sharing needles) or sexual contact, leading to decreased disclosure, which may lead to an increase in HIV infection (Wong & Nur Syuhada 2011). The concern in increase in HIV infection is well-founded because there is a lower rate of sexually transmitted disease testing and HIV testing among the transgendered community in Malaysia (Wickersham et al. 2017). Part of this is due to the unwillingness of medical providers to treat individuals in

this population (Vijay et al. 2018). Little is known about transgenderism in Sabah as no studies can be found studying this population in this state.

Chapter 3: Methodology

Chapter Overview

The methodology chapter is important because it provides information regarding the procedures used to conduct the study. The present study has been conducted as a quantitative analysis. This chapter contains information regarding the research methodology and design, data collection, data analysis, ethical considerations, assumptions, limitations, and delimitations.

Research Methodology and Design

The study was conducted using a quantitative methodology, based on work conducted by Soumahoro et al. (2018). The research design being used in the present study is a descriptive cross-sectional study, which is beneficial because it focuses on a single point in time. In a cross-sectional study, participants are selected due to a variable of interest (Creswell & Zhang 2009). Cross-sectional studies are observational and cannot be used to determine causation. Moreover, variables are not manipulated. Cross-sectional studies are used for describing characteristics within a particular community, such as the Malaysian transgender community. The present study has certain characteristics, making the use of a cross-sectional design appropriate. For example, the study occurred at a specific time and the researcher did not manipulate any of the variables. Moreover, the researcher was able to observe numerous characteristics within the community of interest. Thus, cross-sectional designs represent a ‘snapshot’ of a specific population at a specific point in time (Creswell & Zhang 2009).

Population and Sample Size

The sample was obtained from Sabah. The sample size formula is

$$SSSS = \frac{zz^2 + bb \times (1 - pp)}{cc^2}$$

The confidence level is 95%, so the *z* value is 1.96. The *b* refers to the population size. The *p* refers to the percentage of selection, typically 50%. The *c* is the confidence interval, which is estimated to be 4, The sample size required, then, is

$$SSSS = \frac{1.96^2 + 4000 \times (1 - 0.50)}{4^2} = 125$$

For the present study, the final sample size was 136.

Data Collection

Although homosexuality is illegal in Malaysia, there are still opportunities for support through informal organizations. These organizations were contacted to propose the study, obtain permission, and determine where individuals in the population of interest gathered. To participate in the study, participants were required to be over 18 years of age and identify as being transgendered (even if they use another label for their gender identity) and complete an informed consent form (see Appendix A for the informed consent form and survey questionnaire as provided to the potential participants). Participation was conducted using an anonymous self-survey questionnaire that obtained information regarding socio-demographic information, sexually transmitted disease and HIV/AIDS transmission knowledge, sexually transmitted disease and HIV/AIDS prevention methods, and perceptions of those with sexually transmitted disease and HIV/AIDS.

Socio-demographic Information

Socio-demographic information obtained included gender identity, age range, relationship status, knowledge of someone living with sexually transmitted disease or

HIV/AIDS. In respect to the last question, it was made clear that 'someone' could be in reference to themselves. This increased anonymity of sexually transmitted disease or HIV/AIDS status disclosure.

Knowledge of Sexually Transmitted Disease and HIV/AIDS Transmission

To assess knowledge of modes of sexually transmitted disease and HIV transmission, two modes were considered – certain transmission and uncertain transmission. While it is recognized that transmission can occur in other ways, the questions posed outline the most common perceptions. For example, most individuals do not immediately think of blood contact, so this was not included in this assessment, although it is a well-documented transmission risk. The individual scores were based on 'yes,' 'no,' 'unknown' responses, where 'yes' responses received a score of two, 'no' responses received a score of one, and 'unknown' responses received a score of zero. For the first sub-scale, the total possible score was 18.

Perceptions of Sexually Transmitted Disease and HIV Transmission

To assess knowledge of sexually transmitted disease and HIV transmission prevention methods, the focus is on the perceptions of the use of condoms because sexual activity represents one of the most common ways to contract HIV and the only way to contract sexually transmitted diseases. While it is recognized that HIV can be contracted in other ways, such as through contaminated needles, there is little else to ask in this respect regarding reasoning and perceptions of the preventative methods. When considering condom use, there are often controversial perspectives, which make this more appropriate for the present study and relevant for determining prevention of sexually transmitted diseases and/or HIV. In this analysis, a 'no' response received a score of two, an 'unknown'

response received a score of one, and a ‘yes’ response received a score of zero. For the second sub-scale, the total possible score was 10.

Perceptions of Individuals with Sexually Transmitted Disease or HIV/AIDS

To assess perceptions of individuals with a known sexually transmitted disease or HIV/AIDS status, participants were asked questions in which a ‘yes’ response received a score of two, an ’unknown’ response received a score of one, and a ‘no’ response received a score of zero. For the third sub-scale, the total possible score was 14.

For all three sub-scales (knowledge of sexually transmitted disease and HIV/AIDS transmission, perceptions of sexually transmitted disease and HIV transmission, and perceptions of individuals with sexually transmitted disease or HIV/AIDS), a higher score indicated greater understanding and a more positive perception.

Data Analysis

First, the sample was described using frequencies and percents for qualitative variables. Comparison occurred through the chi square test with an alpha of 0.05. Quantitative variables were first described using frequencies and percents and the scores were determined, then the groups were described based on means and standard deviation. These variables were compared using the Wilcoxon test with an alpha of 0.05.

Ethical Considerations, Assumptions, Limitations, and Delimitations

Ethical Considerations

Participants were provided with an informed consent form and provided the opportunity to ask questions regarding participation. Data was obtained anonymously and no identifying data was requested.

Assumptions

It was assumed that participants answered honestly and freely. It was assumed that the questions were cohesive for answering the research questions and engaging in hypothesis testing. It was assumed that the statistical analysis was robust enough to provide logical outcomes based on the questions asked.

Limitations

The study was limited by the population and willingness to participate. Due to the stigma of transgenderism and coupling that with the stigma of sexually transmitted disease and/or HIV/AIDS, it was hard to obtain an adequate sample size. However, the anonymity of the study assisted in encouraging participation.

Delimitations

Participants were from Sabah, Malaysia and all were transgender. This is a delimitation because of the topic of the study and geographic location.

Chapter 4: Findings and Discussion

Chapter Overview

The purpose of the present study was to determine the perception and attitudes towards sexually transmitted diseases and HIV/AIDS among the transgender community in Sabah, Malaysia. This chapter contains the outcome of the analysis.

Sample Description

The sample consisted of 136 individuals from different transgender support groups in Sabah, Malaysia. The following table provides the socio-demographic information regarding the sample.

Table 1: Socio-Demographic Information

		N (%)
Gender identity	Male	64 (47.1%)
	Female	46 (33.8%)
	Other	26 (19.1%)
Age range	18 to 25	33 (24.3%)
	26 to 35	91 (66.9%)
	36+	12 (8.8%)
Relationship status	In a relationship	82 (60.3%)
	Single	54 (39.7%)
Knowledge of self or others living with sexually transmitted disease or HIV/AIDS	Yes	92 (67.6%)
	No	24 (17.6%)
	Unknown	20 (14.7%)

In Table 1, it is seen that most participants identified as male, were between 26 and 35 years of age, were in a relationship, and had knowledge of someone with a sexually transmitted disease or HIV/AIDS. These divisions are shown graphically in Figures 1 through 4.

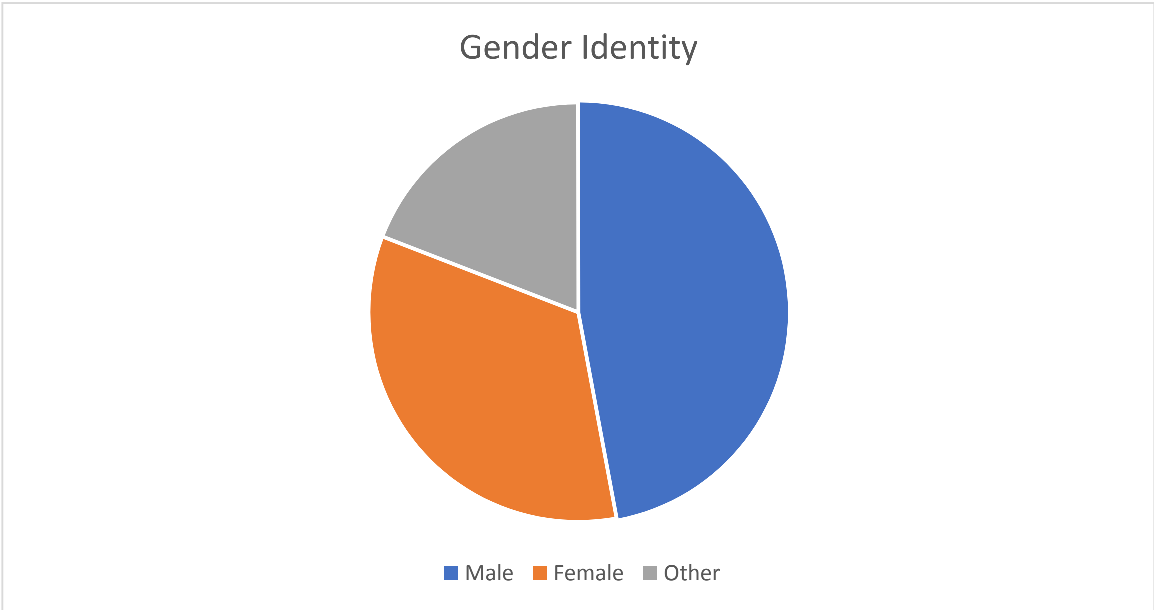

Figure 1: Gender Identity Division

As seen in Figure 1, most participants identify as male, comprising of half of the group. As it is more taboo to be biologically male and transgendered, it is possible that this is disproportionate to the community.

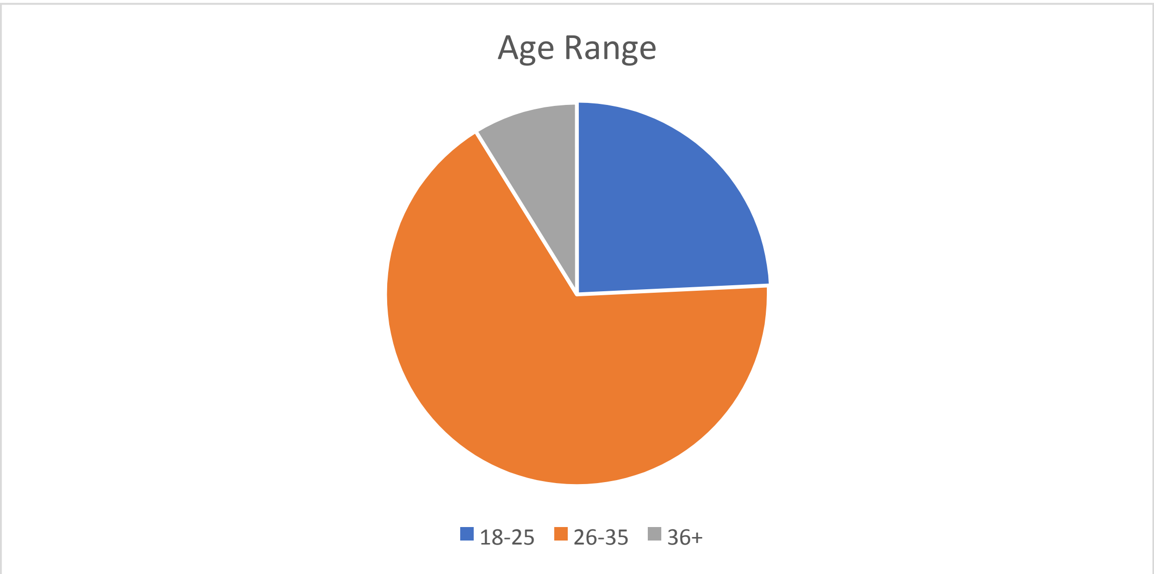

Figure 2: Age Range Division

In Figure 2, it is obvious that most of the population is between 26 and 35 years of age. The reason for this is unknown, but it could be that this is the group that is most open to their identity and voicing it in public.

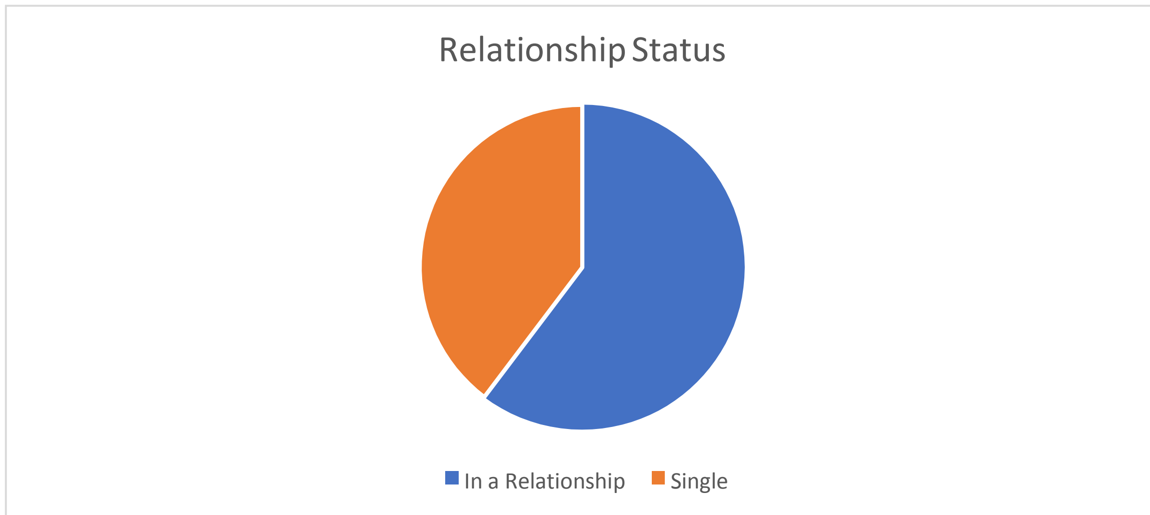

Figure 3: Relationship Status Division

Figure 3 shows that most individuals participating in the study are in a relationship. However, almost half are not.

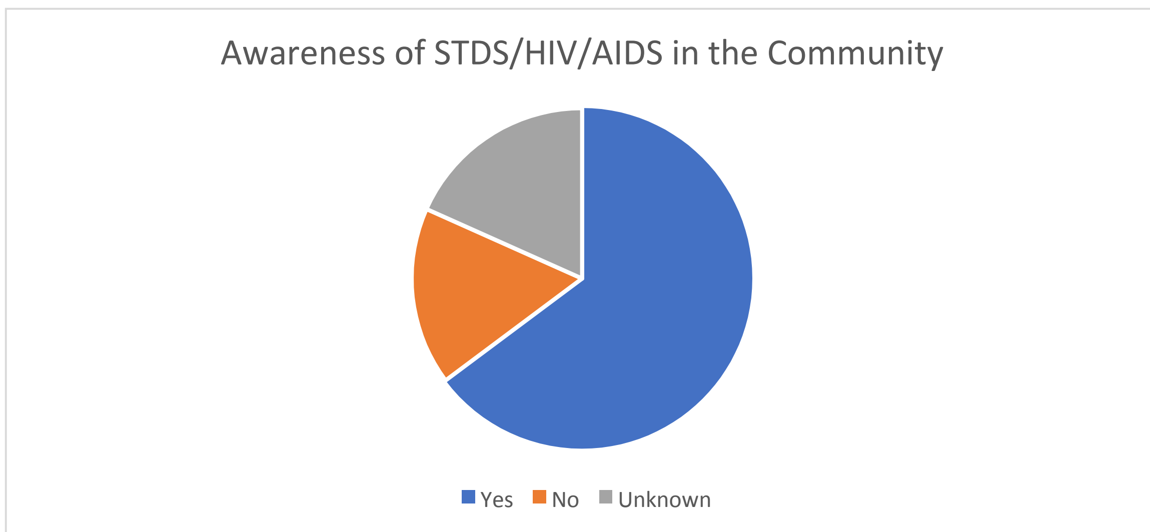

Figure 4: Awareness within the Community Division

Table 4 shows that the majority of the sample is aware of someone living with a sexually transmitted disease or HIV/AIDS, giving credence to the prevalence of the health problem within Sabah. The following table provides a summation of knowledge of sexually transmitted disease or HIV transmission.

Table 2: Knowledge of Sexually Transmitted Disease or HIV Transmission

Sexually transmitted disease and/or HIV can be transmitted by:		**N (%)**
Unprotected sexual relations	Yes	124 (91.2%)
	No	2 (1.5%)
	Unknown	10 (7.4%)
Sharing needles	Yes	128 (94.1%)
	No	3 (2.2%)
	Unknown	5 (3.7%)
Mosquito bites	Yes	17 (12.5%)
	No	94 (69.1%)
	Unknown	25 (18.4%)
Using public toilets	Yes	48 (35.3%)
	No	68 (50.0%)
	Unknown	20 (14.7%)
Eating/drinking after a contaminated person	Yes	9 (6.6%)
	No	93 (68.4%)
	Unknown	34 (25.0%)
Getting a tattoo or piercing	Yes	64 (47.1%)
	No	34 (25.0%)
	Unknown	38 (27.9%)
Using a mechanical razor belonging to a contaminated person	Yes	80 (58.8%)
	No	10 (7.4%)
	Unknown	46 (33.8%)
Getting dental and/or medical care	Yes	112 (82.4%)
	No	9 (6.6%)
	Unknown	15 (11.0%)
Kissing a contaminated person	Yes	79 (58.1%)
	No	54 (39.7%)
	Unknown	3 (2.2%)

Table 2 showed that most participants believe that sexually transmitted disease and/or HIV/AIDS could be transmitted by unprotected sexual relations, sharing needles, getting a tattoo or piercing, using a razor belonging to a contaminated person, getting dental and/or

medical care, or kissing a contaminated person. However, although most were aware this is not the case, some participants believed that transmission could occur through mosquito bites, using public toilets, and eating/drinking after a contaminated person. As noted, kissing a contaminated person was also listed as a cause of transmission, but this is often not the case of HIV/AIDS, although it can occur in other sexually transmitted diseases. The next table shows perceptions of sexually transmitted disease and HIV transmission prevention through condoms.

Table 3: Perceptions of the Prevention of Transmission of Sexually Transmitted Disease and HIV

In relation to the use of condoms:		**N (%)**
Sexual pleasure is decreased	Yes	25 (18.4%)
	No	102 (75.0%)
	Unknown	9 (6.6%)
Promotes multiple sexual partners	Yes	91 (66.9%)
	No	40 (29.4%)
	Unknown	5 (3.7%)
Creates doubt about the other person(s)	Yes	48 (35.3%)
	No	88 (64.7%)
	Unknown	3 (2.2%)
Is unnecessary when in love	Yes	34 (34.0%)
	No	79 (58.1%)
	Unknown	23 (16.9%)
Is too complicated to use	Yes	4 (2.9%)
	No	83 (61.0%)
	Unknown	49 (36.0%)

Overall, there appears to be a strong support for the use of condoms. However, it is noted that participants perceive that the use of condoms promotes having multiple sexual partners. The final table in this section shows the perceptions of the participants towards those with a known sexually transmitted disease and/or HIV/AIDS status.

Table 4: Perceptions of Individuals with Sexually Transmitted Disease and/or HIV/AIDS

Are you likely to:		**N (%)**
Work with work with others with a known sexually transmitted disease and/or HIV/AIDS status?	Yes	86 (63.2%)
	No	45 (33.1%)
	Unknown	6 (4.4%)
Attend social events with others with a known sexually transmitted disease and/or HIV/AIDS status?	Yes	99 (72.8%)
	No	36 (26.5%)
	Unknown	1 (0.7%)
Visit the home of others with a known sexually transmitted disease and/or HIV/AIDS status?	Yes	114 (83.8%)
	No	20 (14.7%)
	Unknown	3 (2.2%)
Eat at the home of others with a known sexually transmitted disease and/or HIV/AIDS status?	Yes	90 (66.2%)
	No	42 (30.9%)
	Unknown	4 (2.9%)
Take an overnight trip with others with a known sexually transmitted disease and/or HIV/AIDS status?	Yes	91 (66.9%)
	No	27 (19.9%)
	Unknown	18 (13.2%)
Entrust a family member's care to others with a known sexually transmitted disease and/or HIV/AIDS status?	Yes	108 (79.4%)
	No	19 (14.0%)
	Unknown	9 (6.6%)
Enter a romantic and/or sexual relationship (even if a one-night stand) with others with a known sexually transmitted disease and/or HIV/AIDS status, provided appropriate protections were used?	Yes	102 (75.0%)
	No	20 (14.7%)
	Unknown	14 (10.3%)

Within the transgendered community, there appears to be much tolerance for sexually transmitted disease and/or HIV/AIDS, where most participants would still engage socially and romantically with people with this status.

Scoring Summation and Hypothesis Testing

The first hypothesis set was:

Ho: There is no association between gender identity and perceptions and attitudes towards sexually transmitted diseases and HIV/AIDS among the transgender community in Sabah, Malaysia.

H_A: There is a significant association between gender identity and perceptions and attitudes towards sexually transmitted diseases and HIV/AIDS among the transgender community in Sabah, Malaysia.

The scoring summation and *p* value are shown below.

Table 5: Gender Identity Influence on Perceptions and Attitudes

		Sub-scale 1 (Mean ± SD)	**Sub-scale 2 (Mean ± SD)**	**Sub-scale 3 (Mean ± SD)**
Gender Identity	Male	5.8 ± 0.3	3.0 ± 0.5	5.5 ± 0.1
	Female	4.2 ± 0.3	2.2 ± 0.8	3.9 ± 0.7
	Other	2.4 ± 0.8	1.2 ± 0.8	2.2 ± 0.1
p value		0.55		

In Table 5, the *p* value was 0.55, which is higher than the alpha of 0.05. As a result, the null hypothesis is accepted. There is no association between gender identity and perceptions and attitudes towards sexually transmitted diseases and HIV/AIDS among the transgender community in Sabah, Malaysia. This means that gender identity has no association with knowledge of sexually transmitted disease and HIV/AIDS transmission, perceptions of sexually transmitted disease and HIV transmission, or perceptions of individuals with sexually transmitted disease or HIV/AIDS.

The second hypothesis set was:

H_O: There is no association between age and perceptions and attitudes towards sexually transmitted diseases and HIV/AIDS among the transgender community in Sabah, Malaysia.

HA: There is a significant association between age and perceptions and attitudes towards sexually transmitted diseases and HIV/AIDS among the transgender community in Sabah, Malaysia.

The scoring summation and *p* value are shown below.

Table 6: Age Influence on Perceptions and Attitudes

		Sub-scale 1 (Mean ± SD)	**Sub-scale 2 (Mean ± SD)**	**Sub-scale 3 (Mean ± SD)**
Age Range	18-25	3.0 ± 0.7	1.6 ± 0.6	2.8 ± 0.2
	26-35	8.3 ± 0.8	4.3 ± 0.6	7.8 ± 0.5
	36+	1.1 ± 0.8	0.6 ± 0.8	1.0 ± 0.4
p value		0.00		

In Table 6, the *p* value was 0.00, which is lower than the alpha of 0.05. As a result, the alternative hypothesis is accepted. There is a significant association between age and perceptions and attitudes towards sexually transmitted diseases and HIV/AIDS among the transgender community in Sabah, Malaysia. This means that age has a significant association with knowledge of sexually transmitted disease and HIV/AIDS transmission, perceptions of sexually transmitted disease and HIV transmission, and perceptions of individuals with sexually transmitted disease or HIV/AIDS.

The third hypothesis set was:

HO: There is no association between relationship status and perceptions and attitudes towards sexually transmitted diseases and HIV/AIDS among the transgender community in Sabah, Malaysia.

H_A: There is a significant association between relationship status and perceptions and attitudes towards sexually transmitted diseases and HIV/AIDS among the transgender community in Sabah, Malaysia.

The scoring summation and *p* value are shown below.

Table 7: Relationship Status Influence on Perceptions and Attitudes

		Sub-scale 1 (Mean ± SD)	**Sub-scale 2 (Mean ± SD)**	**Sub-scale 3 (Mean ± SD)**
Relationship Status	In a relationship	7.5 ± 0.5	3.9 ± 0.1	7.0 ± 0.9
	Single	4.9 ± 0.6	2.5 ± 0.3	4.6 ± 0.1
p value		0.23		

In Table 7, the *p* value was 0.23, which is higher than the alpha of 0.05. As a result, the null hypothesis is accepted. There is no association between relationship status and perceptions and attitudes towards sexually transmitted diseases and HIV/AIDS among the transgender community in Sabah, Malaysia. This means that relationship status has no association with knowledge of sexually transmitted disease and HIV/AIDS transmission, perceptions of sexually transmitted disease and HIV transmission, and perceptions of individuals with sexually transmitted disease or HIV/AIDS.

The fourth hypothesis set was:

H_O: There is no association between knowledge of sexually transmitted disease and/or HIV/AIDS status and perceptions and attitudes towards sexually transmitted diseases and HIV/AIDS among the transgender community in Sabah, Malaysia.

H_A: There is a significant association between knowledge of sexually transmitted disease and/or HIV/AIDS status and perceptions and attitudes towards sexually transmitted diseases and HIV/AIDS among the transgender community in Sabah, Malaysia.

The scoring summation and *p* value are shown below.

Table 8: Sexually Transmitted Disease Status Awareness Influence on Perceptions and Attitudes

		Sub-scale 1 (Mean ± SD)	**Sub-scale 2 (Mean ± SD)**	**Sub-scale 3 (Mean ± SD)**
Status Awareness	Yes	8.4 ± 0.1	4.3 ± 0.8	7.9 ± 0.4
	No	2.2 ± 0.5	1.1 ± 0.3	2.1 ± 0.2
	Unknown	1.8 ± 0.6	0.9 ± 0.6	1.7 ± 0.8
p value		0.02		

In Table 8, the *p* value was 0.02, which is lower than the alpha of 0.05. As a result, the alternative hypothesis is accepted. There is a significant association between sexually transmitted disease and/or HIV/AIDS status awareness and perceptions and attitudes towards sexually transmitted diseases and HIV/AIDS among the transgender community in Sabah, Malaysia. This means that knowledge of an individual's sexually transmitted disease and/or HIV/AIDS status has a significant association with knowledge of sexually transmitted disease and HIV/AIDS transmission, perceptions of sexually transmitted disease and HIV transmission, and perceptions of individuals with sexually transmitted disease or HIV/AIDS.

Discussion

Wei et al. (2012) showed that social factors alone canoe be used for explaining transgenderism. Instead, transgenderism can only be explained using social, biological, and environmental factors. In Malaysia, the transgendered community is deemed as being non-existent because of the violations to religious beliefs and most Malaysian transgendered individuals have been raised with the belief that the transgendered community does not exist. Wei et al. (2012) reported that although many transgendered Malaysian self-report that they would be happier if they had gender reassignment surgery, they are reluctant because they believe that they will face more challenges in relation to their legal status, such as applying for an identity card or passport of the opposite sex, and potential issues while travelling abroad. Moreover, since the official language of Malaysia is Islam, there are multiple challenges faced with religious edict enforcement, which do not allow cross-dressing or gender reassignment surgery. Under the religious edicts, Muslim transgendered individuals may be charged under the Minor Offenses Act of 1955 or Shariah Law (Wei et al. 2012). Conversely, non-Muslim transgendered individuals in Malaysia have similar difficulties, despite not having official restrictions due to religion. Essentially, it is recognized that transgendered individuals are influenced by religious and cultural values, which impacts their gender identity and tolerance of further issues – such as sexually transmitted disease and HIV/AIDS. However, many transgendered individuals are in a high-risk population for sexually transmitted disease and HIV/AIDS because of the discrimination faced, causing them to become sex workers.

Chapter 5: Conclusions and Recommendations

Chapter Overview

This chapter concludes the study and provides a summation of the findings. The key findings were restated and recommendations offered for future actions.

Key Findings

With a *p* value of 0.55, it was found that there is no association between gender identity and perceptions and attitudes towards sexually transmitted diseases and HIV/AIDS among the transgender community in Sabah, Malaysia. With a *p* value of 0.00, it was found that there is a significant association between age and perceptions and attitudes towards sexually transmitted diseases and HIV/AIDS among the transgender community in Sabah, Malaysia. With a *p* value of 0.23, it was found that there is no association between relationship status and perceptions and attitudes towards sexually transmitted diseases and HIV/AIDS among the transgender community in Sabah, Malaysia. With a *p* value of 0.02, it was found that there is a significant association between sexually transmitted disease and/or HIV/AIDS status awareness and perceptions and attitudes towards sexually transmitted diseases and HIV/AIDS among the transgender community in Sabah, Malaysia. This means that knowledge of sexually transmitted disease and HIV/AIDS transmission, perceptions of sexually transmitted disease and HIV transmission, and perceptions of individuals with sexually transmitted disease or HIV/AIDS is influenced by age and awareness of another person's status, but not gender identity or relationship status.

Recommendations

Academic

It is recommended that future studies be taken to include interviews with individuals within this population. Different aspects should be studied, such as stigma and discrimination because these are major issues within the transgendered population in Malaysia. Studies to be undertaken can be quantitative, qualitative, or mixed. The information obtained would be beneficial in future policymaking activities and to provide information regarding what is needed most by this population, besides tolerance, if not acceptance.

Practical

It is recommended that future policymakers consider the transgendered population of Malaysia when developing new policies. These policies need to be developed to include this marginalized population so that their needs can be met and they are able to contribute positively to the society in which they live. It is also suggested that the medical provider population consider their treatment of this population because of the stigma that occurs, leading to lack of preventative treatment, screening, or future treatment. By working together, it is possible to create a society in which transgendered individuals in Malaysia may be recognized, instead of being non-existent, as they are now. This type of cooperation is important for the future of the society because, as noted, transgenderism issues are complex and are based on biology, social factors, and cultural factors – all of which impact acceptance, tolerance, fear, stigma, discrimination, and fair treatment in society.

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Appendix A: Informed Consent Form and Survey

This appendix presents a copy of the informed consent form and self-administered survey as presented to potential participants.

Informed Consent Form and Survey for the Study Titled "Perceptions and Attitudes towards Sexually Transmitted Diseases and HIV/AIDS among the Transgender Community in Sabah, Malaysia"

Informed Consent

You have been invited to participate in this study because you have self-identified as being transgendered (even if your personal gender identity label is different) and are over 18 years of age. The purpose of the present study is to determine the perception and attitudes towards sexually transmitted diseases and HIV/AIDS among the transgender community in Sabah, Malaysia. The survey will consist of questions regarding socio-demographics, socio-demographics, HIV/AIDS knowledge and prevention methods, perceptions of HIV/AIDS, and perceptions of personal risk of infection. To participate in this survey, you will fill out a survey and return it to me. Your participation is entirely anonymous and no identifying information will be gathered. You are not required to participate in this survey. If you agree to participate, please mark the "I agree" box below. Only surveys with clear indications of agreement will be used in the study.

- **I agree to participate in this study.** I certify that I identify as being transgender, even if my personal gender identity label is different, and am over 18 years of age. I understand the subject matter may include sensitive material and that my responses are anonymous.

Survey

Socio-Demographic Information

1. My gender identity is:
    - Male
    - Female
    - Other
2. My age range is:
    - 18 to 25 years of age
    - 26 to 35 years of age
    - 36+ years of age
3. My relationship status is:
    - In a relationship
    - Single
4. I or someone I know lives with sexually transmitted disease and/or HIV/AIDS.
    - Yes

- No
- I don't know

Sexually Transmitted Disease and HIV Transmission

1. Sexually transmitted disease and/or HIV can be transmitted by unprotected sexual relations.
   - Yes
   - No
   - I don't know
2. Sexually transmitted disease and/or HIV can be transmitted by sharing needles.
   - Yes
   - No
   - I don't know
3. Sexually transmitted disease and/or HIV can be transmitted by mosquito bites.
   - Yes
   - No
   - I don't know
4. Sexually transmitted disease and/or HIV can be transmitted by using public toilets.
   - Yes
   - No
   - I don't know
5. Sexually transmitted disease and/or HIV can be transmitted by eating/drinking after a contaminated person.
   - Yes
   - No
   - I don't know
6. Sexually transmitted disease and/or HIV can be transmitted by getting a tattoo or piercing.
   - Yes
   - No
   - I don't know
7. Sexually transmitted disease and/or HIV can be transmitted by using a mechanical razor belonging to a contaminated person.
   - Yes
   - No
   - I don't know
8. Sexually transmitted disease and/or HIV can be transmitted by getting dental and/or medical care.
   - Yes
   - No
   - I don't know
9. Sexually transmitted disease and/or HIV can be transmitted by kissing a contaminated person.

- Yes
- No
- I don’t know

Sexually Transmitted Disease and HIV Prevention

1. In relation to the use of condoms, sexual pleasure is decreased.
   - Yes
   - No
   - I don’t know
2. In relation to the use of condoms, there is a promotion of multiple sexual partners.
   - Yes
   - No
   - I don’t know
3. In relation to the use of condoms, there is doubt created regarding the other person(s).
   - Yes
   - No
   - I don’t know
4. In relation to the use of condoms, usage is unnecessary when in love.
   - Yes
   - No
   - I don’t know
5. In relation to the use of condoms, they are too complicated to use.
   - Yes
   - No
   - I don’t know

Perceptions of those with Sexually Transmitted Disease and/or HIV/AIDS

1. Are you likely to work with others with a known sexually transmitted disease and/or HIV/AIDS status?
   - Yes
   - No
   - I don’t know
2. Are you likely to attend social events with others with a known sexually transmitted disease and/or HIV/AIDS status?
   - Yes
   - No
   - I don’t know
3. Are you likely to visit the home of others with a known sexually transmitted disease and/or HIV/AIDS status?
   - Yes
   - No
   - I don’t know

4. Are you likely to eat at the home of others with a known sexually transmitted disease and/or HIV/AIDS status?
    - o Yes
    - o No
    - o I don't know
5. Are you likely to take an overnight trip with others with a known sexually transmitted disease and/or HIV/AIDS status?
    - o Yes
    - o No
    - o I don't know
6. Are you likely to entrust a family member's care to others with a known sexually transmitted disease and/or HIV/AIDS status?
    - o Yes
    - o No
    - o I don't know
7. Are you likely to enter a romantic and/or sexual relationship (even if a one-night stand_ with others with a known sexually transmitted disease and/or HIV/AIDS status, if appropriate protections are used?
    - o Yes
    - o No
    - o I don't know