Indonesian Nurses’ HIV Knowledge, Religiosity, Individual Stigma Attitudes, and Workplace HIV-Stigma

BY

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THESIS

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DEDICATION

This thesis is dedicated to my mother, Suprapti Pd, my father, Siswandi, my beloved wife, Dini Puspitasari, and my two lovely daughters, Virgie Annisa Putri and Allitha Bella Sakina. Without them, this thesis would never have been accomplished.
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LIST OF ABBREVIATIONS

AIDS : Acquired Immune Deficiency Syndrome
ANNOVA : Analysis of Variance
BPS : Biro Pusat Statistik, or Indonesia Statistics
BSN : Bachelor of Science in Nursing
DKI : Daerah Khusus Ibukota, or Special Capital Region
FPI : Front Pembela Islam, or Radical Islamic Organization
GKJW : Gereja Kristen Jawi Wetan, or Christian Church East Java
HAART : Highly Active Antiretroviral Therapy
HASIN : HIV/AIDS Stigma Instrument-Nurse
HIV : Human Immunodeficiency Virus
HIV-KQ-18 : HIV-Knowledge Question-18 items
IDUs : Injection Drug Users
IRB : Institutional Review Board
KPAN : Komisi Penanggulangan AIDS Nasional, National Commission for HIV/AIDS
KOMNAS HAM : Komisi Nasional Hak Asasi Manusia, or National Commission of Human Rights
KQ-18 : Knowledge Questions-18
MOH : Ministry of Health
MSM : Men who have Sex with Men
NAAS : Nurse Attitude AIDS Scale
NGO : Non-Governmental Organization
ODHA : Orang Dengan HIV dan AIDS, or PLWH
PENASUN : Pengguna Narkoba Suntik, or IDUs
PI : Principal Investigator
PLWH : People Living with HIV and AIDS
SPK : Sekolah Perawat Kesehatan, or School of Assistant Nurse
SPSS : Statistical Package for the Social Sciences
UNAIDS : United Nations Program on HIV/AIDS
WHO : World Health Organization
I. INTRODUCTION

A. Background

This study will examine Indonesian nurses’ stigmatizing attitudes toward PLWH and the factors that relate to these attitudes, including background characteristics, AIDS care factors, HIV knowledge, and religion-related factors. The stigmatizing attitudes and discrimination that people living with HIV (PLWH) receive needs a comprehensive solution. Stigmatizing attitudes toward PLWH are one of the key factors fueling the spread of HIV, since fear of being stigmatized leads PLWH to hide their status and avoid health services to avoid discrimination (Nyblade, 2006).

Stigma can be defined as a negative evaluation that is given by a social group to people who are perceived as having violated some social taboo or behavior that is socially unacceptable. Goffman (1963, p.3) describes stigma as “an attribute that is deeply discrediting within a certain social interaction”. He also describes stigma as an unwanted response that is different from what one expected. Stigma within the context of HIV and AIDS means discrediting PLWH, whether related to some specific perceived negative behavior or not. The types of stigma encountered by PLWH can include discrimination, intimidation, rejection, violence or other negative attitudes. Some common manifestations of stigma toward PLWH are social rejection and blaming PLWH for the personal behaviors that have been assumed (correctly or incorrectly) to result in infection (Herek & Glunt, 1988). However, for PLWH who are not engaged in any of these negative behaviors such as PLWH who got infection from their spouse, also receive similar stigmatizing attitudes and discriminatory behaviors.
People in Indonesia have been identified as having stigmatizing attitudes toward PLWH (Merati, Supriyadi, & Yuliana, 2005). One reason for these stigmatizing attitudes may be the rejection by many Indonesians of behaviors such as injection drugs use, men having sex with men, and commercial sex. Peoples’ stigmatizing attitudes toward PLWH reflect Indonesia’s health education campaign which emphasizes these behaviors as the most common ways people get infected with HIV in Indonesia (Andriana, 2008). Therefore many Indonesians associate HIV infection with having engaged in one of these socially disapproved behaviors. Another factor that may be related to high stigmatizing attitudes toward PLWH among Indonesians is fear of becoming infected due to lack of understanding of how HIV transmission occurs.

Nurses work in the frontline of the health care system and also are the largest category of predominant health care professional. They are not only closely involved in caring for HIV positive people but also active observers of stigmatization both in health care settings and in the community. Nurses are potential leaders in the effort to reduce stigma.

However, studies of nurses in many countries including areas like in India and Uganda have reported stigmatizing attitudes toward PLWH, which may affect directly the quality of health care (Smit, 2005; Walusimbi, & Okonsky, 2004). Although few studies have been done in Indonesia, these studies reported that Indonesian nurses and other health professionals also have stigmatizing attitudes toward PLWH, with the same negative consequences for HIV prevention and AIDS care found in other countries (Chakrapani, Newman, Shunmugam, McLuckie, & Melwin, 2007; Krishna, Bhatti, Chandra, Juvva, 2005; Molassiotis & Maneesakorn, 2004).
It is important to understand Indonesian nurses’ attitudes toward HIV because Indonesia has an HIV epidemic that is growing rapidly. There is evidence that Indonesian PLWH have difficulties accessing health care service because of health workers’ stigmatizing attitudes. A study in Bali Indonesia found that PLWHs experienced rejection from health workers at the health center and even refusal for treatment (Merati, Supriyadi, & Yuliana, 2005). Although there is little data for other areas of Indonesia, it seems likely that stigmatizing attitudes and discrimination toward PLWH occur throughout Indonesia, with negative influences on testing and ARV therapy.

Religion and religiosity have been linked to stigmatizing attitudes toward PLWH because many religious groups hold values that prohibit the behaviors linked to HIV transmission. However, little research has examined religious factors and stigmatizing attitudes to PLWH. Indonesia is an excellent setting for examining the relationship between religion and stigmatizing attitudes toward PLWH because it contains a variety of religions. Indonesia is the world's most populous Muslim-majority country. Islam has strong values prohibiting homosexuality, sex outside of marriage, and injection drug use. Indonesia also has several minority religions, the largest being Christian Catholics and Protestants. Although these religions differ from Islam in many ways, they also have values prohibiting these behaviors. Indonesian nurses’ stigmatizing attitudes to PLWH may be affected by the nurses’ religious identification and religiosity, as well as their individual characteristics, hospital religious affiliation, HIV knowledge, and AIDS care experience. Therefore, a study that examines predictors to Indonesian nurses’ stigmatizing attitudes toward PLWH is needed.
B. Statement of the Problem

There are relatively few studies of factors that relate to nurses’ stigmatizing attitudes toward PLWH. Previous research has identified a number of factors related to personal background (e.g. age, education, working experience), HIV knowledge, and AIDS-care related factors (HIV and AIDS care training) that affect stigmatizing attitudes. Religious factors may also be related to stigmatizing attitudes to PLWH and the behaviors associated with transmission, but systematic investigation is very limited.

Stigmatizing attitudes of nurses and other health professionals toward PLWH violate professional ethics, can cause distress, and prevent PLWH from accessing care and treatment. Stigmatizing attitudes toward PLWH have been identified as one of the main barriers to HIV prevention, care and support programs in several Asian countries including Turkey, Iran, and Indonesia (Bektas & Kulakac, 2007; Askarian, Hashemi, Jaafari, & Assadian, 2006; Paxton & Stephens, 2005). Discrimination, rejection from staff at the health center, refusal of treatment, breach of confidentiality, and physical isolation are also common impacts of stigma experienced by PLWH in the health care center or hospital.

Some PLWH in Indonesia cited fear of isolation and loss of their civil rights such as safety and protection from discrimination, as primary reasons for not disclosing their HIV status to others (Ford, 2004; & Paxton, 2007). The investigator conducted a preliminary study on HIV stigmatizing attitudes from health professionals perceived by PLWH. This study examined patient perceptions of HIV and their feelings about being stigmatized. The major stigmatizing attitudes faced by PLWH were isolation from other
people and psychological abuse (Waluyo, Nurachmah, & Rosakawati, 2006). The findings showed that stigmatizing attitudes toward PLWH by health professionals, especially nurses, was a major problem. The study was conducted in a general hospital in Jakarta, Indonesia. There are few studies of stigmatizing attitudes from health professionals in Indonesia. This lack of research challenged the investigator to study nurses’ stigmatizing attitudes toward PLWH and examine the difference of nurses’ stigmatizing attitudes related to their individual backgrounds, AIDS care factors, HIV knowledge, and religious factors.

C. Purpose of the Study

The purpose of this study is to determine the extent to which the nurses’ background (age, gender, monthly income, working experience, and educational background), AIDS care factors (HIV and AIDS care training, perceived competence to care for PLWH, and perceived workplace stigma), HIV knowledge, and religious factors (religious identification, religiosity, and hospital religious affiliation) affect their stigmatizing attitudes to PLWH.

The research questions are:

1. What is the level of stigmatizing attitudes of Indonesian nurses?
2. What factors are associated with nurses’ stigmatizing attitudes?

D. Significance of the Problem

Stigmatizing attitudes toward PLWH have been widely reported globally. This HIV stigma has been attributed to multiple factors, including fear, lack of knowledge, and
values from local tradition or religious beliefs, such as blaming the immorality of HIV infected drug users, homosexuals, and women prostitutes. HIV-related stigma is a very significant problem in health care, especially in HIV prevention programs. Stigmatizing attitudes can have a tremendous negative impact on a PLWH as well as persons at risk of HIV infection. Stigmatizing attitudes from health professionals create barriers to access for testing and HIV treatment and also undermine to prevent HIV infection toward PLWH’s environment (Nyblade, 2006).

Nurses are the predominant health workers and stigmatizing attitudes toward PLWH by nurses should be eliminated. Otherwise, the stigma can hinder the further increase in antiretroviral therapy coverage in Indonesia and other improvements in prevention and quality of care. The latest estimation of antiretroviral therapy coverage was below 46% (KPAN, 2009). To understand the factors that are associated with stigmatizing attitudes among nurses toward PLWH in Indonesia are paramount. Identifying the factors associated with stigmatizing attitudes toward PLWH by nurses should contribute to the development of effective programs to minimize stigmatizing attitudes toward PLWH. Depending on which factors are most associated with stigmatizing attitudes, actions programs can be targeted to reduce stigmatizing attitudes and thus improve HIV prevention programs and provide accessible treatment to PLWH.

One important aspect of the problem is expanding understanding of how religion and religiosity relate to stigmatizing attitudes toward PLWH. Although several studies have identified local religion and traditions as factors that influence stigmatizing attitudes toward PLWH (Umeh, Essien, Ezedinachi, & Ross, 2008), no study has examined religion and religiosity simultaneously. Moreover, no previous study in Indonesia has
examined the association between religious factors and stigmatizing attitudes toward PLWH.

E. Operational Definitions of Terms

**HIV Knowledge**: People’s knowledge about HIV transmission, HIV and AIDS signs and symptoms.

**Religiosity**: the degree to which one believes in and is involved in religion regardless of the particular religion one belongs to.

**Perceived Workplace Stigma**: perception of stigmatizing attitudes toward PLWH by other nurses that occurred within their workplace (health facility).

**Stigmatizing attitudes to HIV**: negative evaluation that is given by a social group to PLWH who are perceived as having behavior that is socially unacceptable.

F. Significance of the Study

This study can make a theoretical contribution by describing and clarifying the association between nurses’ stigmatizing attitudes to PLWH and their individual characteristics, AIDS care experiences, HIV knowledge, and religion-related factors. The current study is guided by previous studies of Chirwa et al. (2009), Preston, Young, Koch, & Forti, (1995); Carey & Schroder (2002); King, Speck, & Thomas, (2001) and Zou, et al (2009). Although previous researchers found that stigmatizing attitudes toward PLWH were associated with the knowledge, attitudes and behaviors of health professionals, those previous studies did not provide enough evidence about the association of these factors with nurses’ stigmatizing attitudes toward PLWH. This kind
of study has never been reported in Indonesia or any other country. The findings from this study may contribute to a better understanding of factors that predict nurses’ stigmatizing attitude toward PLWH in Indonesia, and perhaps in other regions as well. One important contribution will be evidence about whether religious affiliation (e.g., Islam, Catholic, etc.), religiosity, or both affect stigmatizing attitudes toward PLWH.

On a practical level, this investigation will identify factors associated with nurses’ stigmatizing attitudes toward PLWH. This information is very important in designing evidence-based interventions to reduce stigmatizing attitudes from nurses and other health professionals toward PLWH. A specific curriculum can be suggested for preparing professional and caring nurses to assist and support PLWH. At the policy level, this study will provide a foundation for developing practice standards and nursing education guidelines that are sensitive and directed toward minimizing stigmatizing attitudes toward PLWH from nurses and other health professionals.
II. LITERATURE REVIEW AND CONCEPTUAL FRAMEWORK

The purpose of this study is to determine the extent to which the nurses’ backgrounds, AIDS care factors, HIV knowledge, and religious factors affect their stigmatizing attitudes toward PLWH. This literature review begins by describing the research related to the HIV epidemic in Indonesia, and then reviews previous research regarding nurses’ stigmatizing attitudes toward PLWH. Investigator examined evidence regarding demographics, AIDS care factors, HIV knowledge, and religious factors as they affect stigmatizing attitudes toward PLWH. Then a conceptual framework is proposed based on this literature review.

The literature review used articles found through web-based data bases including CINAHL, MEDLINE and PSYCINFO. The search criteria included the selection of English language articles related to the four variables that are the main interest in this study. These variables were used as the four keywords to search in the data bases, which are HIV knowledge, religiosity, attitudes toward PLWH, and stigmatizing attitudes related to HIV. A total of 75 relevant articles were reviewed.

A. HIV and AIDS in Indonesia

Indonesia is a country in Southeast Asia comprised of 17,508 islands. With a population of around 240 million people, Indonesia is the world's fourth most populous country, and has the world's largest population of Muslims. Approximately 88% of the population is Muslim and nearly half the population (46%) live in urban areas. The estimated GNP per capita was US$2,329 (IMF, 2006). The service sector is the
economy's largest and accounts for 45.3% of GDP (BPS, 2005). The other sectors are industry (40.7%) and agriculture (14.0%). Eighteen percent of the population lives below the government poverty line, and nearly half of all Indonesians live on less than $2 a day and lack adequate health services, food security, and sanitation. About 213,000 children under five die each year from preventable conditions related to poor delivery and essential newborn care (birth asphyxia, neonatal infection), diarrhea, pneumonia, and measles. Malnutrition is estimated to be an underlying factor in more than half of all child deaths, and rates of malnutrition have been stagnant for several years. For every 100,000 live births, more than 300 women die (USAID, 2008).

The first HIV case in Indonesia was reported on 1987 in Bali. Since then, the incidence of HIV in Indonesia has grown rapidly. Since the year 2000, HIV prevalence has remained over 5% for each of the high risk groups of injection drug users (IDUs), commercial sex workers, and men who have sex with men (MSM). According to the latest survey by KPAN in 2009, among those identified as HIV positive, 52.4% were IDUs, 24.4% were transgender, 15% were female sex workers, and 5.2% were MSM (See Figure 1). In only six years, total HIV and AIDS cases increased six-fold. There were 4,159 total cases reported in 2003, and by March, 2009 there were 26,632 cases. However, the actual number of people with the disease may be far higher, because as many as 85% of those infected by HIV do not know they are infected (KPAN, 2009). The total number of PLWH in Indonesia in 2010 is estimated to be 371,800, and by 2014 the estimated number is projected to be 541,700 people (MoH, 2008). The exact HIV mortality rate in Indonesia is not known, but the reported number of AIDS-related deaths
in the Indonesia Center of Statistics Bureau (2008) is 3,856. Lack of knowledge and lack of early testing are factors that contribute to high AIDS mortality in Indonesia. Ford (2004) emphasized that the mortality rate in Indonesia was high in part because most PLWH were not aware that they were HIV positive.

B. Stigma and HIV Stigma

*Stigma.* The term “stigma” was used originally by the Greeks to refer to a bodily mark, spot, puncture or brand, especially one made by a pointed instrument inscribed punitively to show a diminished moral status of a criminal or traitor (Goffman, 1963). Throughout the Middle Ages, the word “stigma” retained its meaning as a bodily mark of disgrace or shame, often burned onto the skin of a convict or slave (Burke & Parker, 2007). In the 1300’s Catholic believers used a related word “stigmata”, to describe wound markings like those inflicted upon Jesus that were believed to appear supernaturally on the bodies of certain persons, such as nuns and priests, signifying their holy distinction (Catholic Encyclopedia, 2008).

Goffman (1963, p.3) adapted this term to describe stigma as ‘an attribute that is deeply discrediting within a certain social interaction’. Additionally, he describes stigma as an unwanted response that is different from what one expected. The negative sanctions imposed by the larger society can lead to the response that stigma is accepted by an individual (Herek, 1993). For example, if a criminal is said to be guilty of a crime, he will get a “stamp” or mark of guilt upon him. This negative identity would be shared by most people in the environment where this person lives. Affected by exposure to this negative social valuation, the stigmatized person may internalize a sense of diminished social
worth. Stigmatizing attitudes are often accompanied by discrimination. By definition, discrimination is an action of someone in making a distinction in favor of or against a person based on the group, class, or category to which that person belongs (Dictionary.com, 2010). People who stigmatize PLWH also often discriminate against PLWH as they perceive that the PLWH deserves to be poorly treated.

*HIV Stigma.* Stigma toward PLWH was identified by the early 1980's. Stigma was evident in representations and treatment of PLWH in the U.S. At that time, PLWH faced stigma not only because of public alarm about the disease but also from the stigma associated with the social identities and behaviors of many of those who become infected (Herek, 1988). Stigmatizing attitudes toward PLWH often related to the modes of transmission of HIV that were identified as high risk groups. Groups identified as high risk included injection drug users, MSM, and persons engaged in commercial sex. These behaviors were already stigmatized in many cultures and these negative attitudes were projected to all PLWH regardless of whether the individual engaged in these behaviors. For example, married women who are not commercial sex workers who were infected by their partners would be stigmatized in the same way as an IDU or commercial sex worker.

*Stigmatizing attitudes toward PLWH among Nurses.* Stigmatizing attitudes toward PLWH have been found not only among the general population but also among health professionals. Nurses as individuals have been identified as expressing negative attitudes and discriminating behavior toward PLWH in health care settings in many countries in Africa such as Lesotho, Malawi, South Africa, Swaziland, Cameroon, and Uganda.
(Holzemer et al., 2007; Kushleikaite et al., 2007; Mbanya et al., 2001; Nyblade, 2006; Nachega et al., 2005; Tyer-Viola, 2007; Uwakwe, 2000; Walusimbi & Okonsky, 2004). Studies in several Asian countries also have found that nurses and other health professionals have stigmatizing attitudes and discriminatory behavior toward PLWH. Khrisna (2005) found that nurses and other health professionals in India were discriminating, unsupportive and oppressive toward PLWH and their families. Their negative behaviors included frequently breaching patient confidentiality, distanced themselves from patients with known HIV infection, giving last priority to their care, and making humiliating remarks to the patient and their family. These behaviors were perceived by PLWH to be unprofessional and unethical (Khrisna et al., 2005). An Iranian researcher also found that stigmatizing attitudes were demonstrated by the nurses, half of whom were not willing to take care of PLWH (Askarian et al., 2006). In that study, nurses said that if assigned to give care to PLWH, they would ask to be assigned elsewhere. In Turkey, student nurses’ negative attitudes were demonstrated when they said they preferred not to take care of PLWH. Their attitudes were interpreted by the authors as reflecting fear of contagion of HIV more than discrimination and stigmatizing attitudes toward PLWH (Bektas & Kulakac, 2007).

In many situations nurses are at the front line in providing care for PLWH and are exposed repeatedly to an environment which has a possibility of HIV infection (Fournier et al., 2007). Individual nurses’ stigmatizing attitudes toward PLWH may be related at least partially to fear of the risk of contracting the virus as a result of accidental occupational exposure (Walusimbi, & Okonsky, 2004). The risk of Hepatitis B infection is 100 times greater than the risk of workplace HIV infection, but nurses are more afraid
of occupational exposure to HIV. Although there was no Hepatitis incidence documented on this study, at least partly because nurses believe HIV is more lethal than Hepatitis B (Peate, Suominen, Välimäki, Lohrmann, & Muinonen, 2002). The fear of contracting HIV has become part of their nursing work and something that they have to cope with mentally, especially when taking care of PLWH.

The few articles discussing stigmatizing attitudes toward PLWH by nurses in Indonesia also had similar results. In a study in Bali, Indonesia, PLWH experienced rejection from the health center, refusal of treatment, breach of confidentiality, and physical isolation (Merati, Supriyadi, & Yuliana, 2005). Some PLWH in Indonesia cited fear of isolation and loss of their civil rights such as safety and protection from discrimination, as primary reasons for not disclosing their HIV status to others (Ford, 2004; Paxton, 2008). Preliminary investigation of Indonesian nursing students regarding caring for PLWH showed that many students were reluctant to care for patients infected with HIV (Culbert & Waluyo, 2004). Another study of Indonesian nurses’ stigmatizing attitudes toward PLWH described that the major stigmatizing attitudes faced by PLWH in Indonesia in that sample were isolation and psychological abuse (Waluyo, Nurachmah, & Rosakawati, 2006). The findings showed that health professionals, especially nurses, had stigmatizing attitudes toward PLWH. Nurses were said to give last priority to care for PLWH. This study was a preliminary qualitative study using a limited sample size and may not represent the attitudes toward PLWH of all Indonesian nurses.

**Workplace HIV Stigma.** Workplace HIV stigma is the overall stigmatizing attitudes and discriminatory behaviors toward PLWH that occurs within a workplace
providing health care service, e.g. hospital or clinic. Holzemer (2007) reported that stigmatizing attitudes by some health workers triggered other healthcare workers, including nurses, to also behave in a discriminatory way, such as isolating, excluding or breaching confidentiality of a PLWH. Observing stigmatizing attitudes toward PLWH by other nurses in workplace can lead to the perception that stigmatizing attitudes is occurring frequently and tolerated by management and other nurses. Uys, Holzemer, et al. (2009) in their continuing study on stigma in five African countries, found that stigmatizing attitudes toward PLWH were perceived by the nurses as occurring frequently in their workplace in all five countries.

Few studies with PLWH in Indonesia have examined workplace stigma. One study described that nursing students in one general hospital in Jakarta perceived that the nursing staff in the ward stigmatized PLWH (Culbert & Waluyo, 2004). Other studies in Bali and Jakarta described that some PLWH felt being affected by both stigmatizing attitudes of individual health professionals and by pervasive workplace stigma in the whole hospital (Ford, 2004; Merati, Supriyadi, & Yuliana, 2005; Waluyo, Nurachmah, & Rosakawati, 2006).

C. Factors that Influence Stigmatizing Attitudes toward PLWH

The description of factors that influence stigmatizing attitudes toward HIV and PLWH will start with describing individual background, HIV and AIDS care factors, HIV knowledge, and religious factors. For each factor, the investigator will describe the specific variables that previous research has associated with stigmatizing attitudes toward PLWH.
a) Individual Background: Age, gender, working experience, educational background, monthly income.

Several studies have described experience and educational background as factors related with stigmatizing attitudes toward PLWH. A study in Belize, Central America found that older and more experienced health professionals had less stigmatizing attitudes toward PLWH (Andrewin, & Chien, 2008). In China, more experienced nurses exhibited fewer discriminatory attitudes toward PLWH (Li, et al., 2007). In Canada, more experienced health professionals were more compliant in following a professional code of conduct in caring for PLWH (Solomon, et al., 2005). In contrast, a study in India found that older health professionals felt less comfortable when they were caring PLWH, were more likely to test for HIV on a patient who was suspected of HIV positive without informed consent, and often expressed prejudicial attitudes toward patients who were known or suspected to be HIV positive (Mahendra, et al., 2007). Mahendra described that these older health professionals were less likely to have attended training on HIV and AIDS. Regarding education, a study from Cameroon described that more educated nurses had higher HIV knowledge level (Mbanya, Zebaze, Kengne, Minkoulou, Awah, & Beure, 2001). Although no study described how gender and income influence stigmatizing attitudes toward PLWH, these factors are included in this study as important personal characteristics. Therefore, their relationship with stigmatizing attitudes will be examined.
b) AIDS Care Factors: HIV care training, perceived competence to care PLWH, perceived workplace stigma.

Several studies found that HIV and AIDS care training and perceived competence were associated with less stigmatizing attitudes toward PLWH. Previous studies in Ghana and China described that formal HIV and AIDS training lowered the level of stigmatizing attitudes (Smit, 2005; & Li, et al., 2007). Another study in the US showed that significant predictors of nurses’ willingness to care PLWH were feeling prepared to care PLWH and anxiety about contracting the HIV from their patient (O’Sullivan, Preston, & Forti, 2000). However, one study in the US found that having previous HIV training does not always result in having high level of knowledge (Schillo, & Reischl, 1993).

There are no studies describing the association between perceived workplace stigma and stigmatizing attitudes toward PLWH. The only study of perceived workplace stigma was conducted in Africa by Uys et al., (2009). They found that nurses perceived more workplace stigma if they were less satisfied with their job as nurses.

c) HIV knowledge

There is evidence of low knowledge about HIV both in the general population and among health professionals in many African and Asian countries, including Ghana, South Africa, Uganda, India, China, and Russia (Smit, 2005; Li, et al., 2007; Nyblade, 2006; Nachega et al., 2005; Walusimbi & Okonsky, 2004; Balabanova, et al., 2006). The lack of knowledge of HIV and its transmission among the general population in Russia is associated with stigmatizing attitudes toward PLWH (Balabanova, Coker, Atun,
Drobniewski, 2006). In a large meta-analysis Albarracin et al. (2005) described higher HIV knowledge will not automatically decrease stigmatizing attitudes toward PLWH, but most suggested higher HIV knowledge contributes significantly to decrease HIV stigma.

Health professionals, including nurses, are often assumed to be persons who have high knowledge about diseases and interventions. In fact, studies from many countries, including Malawi, Uganda, Sweden and Turkey show that nurses are often poorly informed about HIV and how to care for PLWH (Walusimbi & Okonsky, 2004; Rondahl et al., 2003; Bektas, 2007). The association of inadequate HIV knowledge of health professionals with their stigmatizing attitudes was also confirmed in two studies in four countries in Europe (Finland, Estonia, Lithuania, and Sweden) (Peate et al., 2002; Rondahl et al., 2002).

This lack of knowledge has been associated with more stigmatizing attitudes by nurses and other health professionals toward PLWH in part because of misunderstanding regarding transmission of HIV (Balabanova, et al., 2006, Kidd & Clay, 2004; Brown et al., 2003). Other studies confirmed this association because they found that provision of knowledge about HIV and its prevention contributed to decrease stigmatizing attitudes toward PLWH among health workers (Earl & Penney, 2003; Lueveswanij et al., 2000; Markham et al., 2000; Walusimbi & Okonsky, 2004). Gaining HIV knowledge, from having specific training or good formal education can provide health professionals with sufficient knowledge about HIV/AIDS care to decrease fear of workplace infection and help to decrease their stigmatizing attitudes (Mbanya, et al., 2001; Li, et al., 2007; Adepoju, 2006).
This review of previous research suggests that improvement of a nurse’s knowledge and perception of HIV will shape a better understanding of how HIV is transmitted. As a result, the nurse with training may have a more tolerant attitude toward PLWH. Nurses or other health professionals with better HIV knowledge have less stigmatizing attitudes toward HIV and PLWH. However, increasing knowledge is not likely to eliminate stigmatizing attitudes toward PLWH, due to the other element of rejection.

d) Religious Factors

Religion and religiosity have been linked to stigmatizing attitudes toward PLWH because in many religion with their religious values prohibit the behaviors linked to HIV transmission. The major religions have similar values that prohibit the behaviors most likely to transmit HIV. To discuss the association of religious factor with stigmatizing attitudes toward PLWH, the investigator will summarize previous findings about religious factors and stigmatizing attitudes toward PLWH, including religious identification (religion), religiosity, and hospital religious affiliation.

*Religious Identification (Religion).* Religious identification is a person’s self-identity as a follower of a particular religion. Someone who identifies as member of a particular religion will tend to follow that religion’s beliefs and practice including worship of a God or Gods, or a set of beliefs concerning the origin and purpose of universal moral values, and worship practices; although the degree of belief and participation will vary from member to member. Examples of major world religions are Christianity (both Protestantism and Catholicism) and Islam. Although all religions
encourage people to be compassionate toward others regardless race, gender, social status, disease and other differences, some of a religion’s followers may have negative feelings and discriminate against people who are different from them and who do not follow their religious beliefs. There are some differences in the specific values of religions that may influence the attitudes toward PLWH.

Several studies in different countries have identified that people with different religion backgrounds had different attitudes about HIV and PLWH. One study in Tanzania, a predominantly Christian country, found that Christian religious beliefs had significant negative influences on people’s attitudes and behavior toward PLWH (Zou et al., 2009). PLWH were associated with certain sexual behaviors, sexual preferences, and/or use of drug substances prohibited by the church (Zou et al., 2009). Most of them also believed that HIV was a punishment from God and that PLWHs did not follow what God says in the Bible. Another study was conducted in Trinidad, a predominately Christian country with both Protestants and Catholics (Genrich & Brathwaite, 2005). This study found that religious leaders’ opinions toward HIV and PLWH shaped people’s negative attitude about HIV and PLWH. Only a few years before, Richards (2001) found that distributing condoms to high risk people as an HIV prevention program was opposed by the Christian religious leaders in Trinidad.

Few studies have examined nurses’ attitudes toward PLWH in relation to the nurses’ different religious affiliations. The only study about nurse/health professional attitudes toward PLWH and their religious affiliation was a study in Nigeria. In this study there was no difference in attitudes toward PLWH between Muslim and Christian health workers. Both Muslim and Christian nurses expressed reluctance to care for and treat
PLWH. The authors stated that these negative attitudes toward PLWH were based on the cultural norms and beliefs within both religious affiliations (Umeh, Essien, Ezedinachi, & Ross, 2008).

Islam in Indonesia. There is evidence of Arab Muslim traders entering Indonesia as early as the 8th century. Indonesia is the largest Muslim country in the world, but the government implements civil laws instead of Muslim laws. During the early process of spreading Islam in Indonesia, the local cultural influences from the Hindu-Buddhist era were tolerated and incorporated into Islamic rituals. Recently, however, incorporation of local cultural influences into Islamic traditions has been challenged. Islamic religious leaders have prohibited the traditions that come from local Hindu-Buddhist influences.

Today, Indonesia is influenced by the global movement to a more rigid interpretation of Islam. For example, in Aceh province they now apply Sharia or Islamic law as part of the local law within the community. Aceh province is an example on how Islamic law strictly regulates every aspect of people lives. Whipping as a punishment for people who are judged criminals is an approved punishment in Islamic laws. This kind of punishment was given to two men who were suspected to be a gay couple (AKI, 2008). Islam also disapproves of drug use, commercial sex and any sexual activity outside of marriage. Other provinces in Indonesia, which apply civil law rather than religious law, also have strong mosque-based religious communities and religious leaders who strongly influence people lives (Bakar & Bamualim, 2006). Some Islamic religious leaders have established Islamic groups like Front Pembela Islam (FPI, the Islamic Defense Front) and Laskar Jihad (the Jihad Brigade) that organize radical actions in response to situations that occur
in the community. These trends seem to be turning Indonesia into a more radicalized Muslim country (Davis, 2002). The activities of these groups are sometimes perceived as representative of the majority of Muslims in Indonesia.

There are few studies on the influence of Islam on people’s attitudes toward PLWH in Indonesia. Islam influences not only the culture within which health workers care for a patient, but also health workers’ beliefs and perception about those patients. For example, based on Islamic teaching, HIV positive drug users and MSMs are grouped by the community as persons who have committed serious sins. These PLWHs are blamed for their drug abuse behavior and sexual preferences whether or not that particular person engaged in any of these stigmatized behaviors (Waluyo, Nurachmah, & Rosakawati, 2006). The influence of strong conservative beliefs in Islam on people’s perception leads to stigmatizing attitudes toward PLWH and their family. These stigmatizing attitudes from others make PLWHs and their families hide their status from the community and their neighbors.

Christianity in Indonesia. Although the majority of the population is Muslim, Indonesia has people who believe in other religions like Christianity (Protestant and Catholic), Hinduism and Buddhism in almost every province in Indonesia. These religions are allowed to practice freely. However, they may be influenced by the dominant religion. The percentage of Christians in Indonesia, including both Protestants and Catholics, is about 12%. Protestantism was first introduced by the Dutch in the 16th century, bringing the influence of Calvinist and Lutheran teachings to the eastern parts of Indonesia such as Papua and Ambon. The Catholic religion entered into Indonesia in the
16th to 17th century in Sumatra. Both Catholic and Protestant church leaders preach against homosexuality. Christianity traditionally opposes homosexual activity, prostitution, and consuming substances like alcohol or drugs that can affect the body. Christianity defines these, especially homosexuality, as something that is contrary to the laws of nature and sinful. However, some priests think that the church needs to be open to gay and transgendered persons, and that they should be involved in church activities (GKJW, 2009).

Religiosity. Religiosity is the degree to which one believes in and is involved in religion, regardless of the particular religion one belongs to. Most of the studies in the general population have found that more religious persons had more stigmatizing attitudes toward PLWH. Takyi (2003) found that in Ghana more religious persons had more stigmatizing attitudes toward PLWH. In Mozambique Agadjanian (2005) found that more religious persons were more stigmatizing toward to PLWH, especially if the PLWH was thought to be homosexual. In Senegal, both more religious Muslims and more religious Catholics had more stigmatizing attitudes toward PLWH than less religious study participants. Also, the more religious study participants were less likely to practice HIV prevention behaviors (Lagarde et al., 2000).

Only one study has examined religiosity among health workers. Varaz-Diaz (2010) found that health workers in Puerto-Rico who identified that religion was important to them had a higher level of stigmatizing attitudes toward PLWH. These health workers saw PLWH as responsible for their own infection because of their
promiscuity or irresponsibility. They also saw PLWH as a new vector of HIV infection. They insisted that PLWH should reveal their HIV positive status.

_Hospital Religious Affiliation._ No previous studies looked at religiosity separately from the type of religion. This study recruited nurses from hospitals with different religions affiliations as a process to obtain substantial numbers of nurses of Protestant, Catholic, and Islamic religions. However, the hospital affiliation may also influence nurses’ attitudes toward PLWH, in addition to nurses’ individual religion. The difference in nurses’ attitudes among hospitals from different religious affiliations were significant. Differences in nurses’ attitudes to PLWH may be due to differences in hospital policy on HIV or expression of hospital’s religious beliefs within the hospital. Nurses who belong to hospital’s religion may prefer to work there.

One study found that if the hospital’s policy clearly supported PLWH such as providing consent for testing, confidentiality, and disclosure, it was associated with lower stigmatizing attitudes score of their health workers (Andrewin, & Chien, 2008). In addition Andrewin and Chien described that if the hospital policy mentioned supporting PLWH, the nurses and other health professionals perceived that there was institutional support for the care of PLWH. Other studies found that there was a strong relationship between hospital policy and health workers’ attitudes, such as willingness to have contact with PLWH (Li et al., 2007; Green, & Platt, 1997). When the hospitals give support to HIV and AIDS care and prevention, it enhances the accessibility of HIV treatment and care. Once the accessibility to the HIV treatment is in place, then gradually stigmatizing
attitudes toward PLWH may decrease (Abadia-Barrero, & Castro, 2006; & Wolfe et al., 2008).

_Summary: Influence of Religion on Stigmatizing Attitudes._ Relatively few studies have been conducted on the impact of religious identification, religiosity and hospital religious affiliation on stigmatizing attitudes and no study has examined all three of these aspects simultaneously. The few studies that have been done identify that the values of several different religions, including Islam, have been used to support stigmatization of PLWH. Religiosity has also been associated with more stigmatizing attitudes (Varaz-Diaz, 2010). The limited studies conducted in Indonesia also suggest that religious beliefs are associated with negative perceptions and behaviors toward HIV and PLWH among both the general public and health workers. However, there is insufficient research to identify the relative importance of type of religion and personal level of religiosity. It is very important to examine nurses’ religiosity and religion, as well as the religious affiliation of the hospital where they work, and how these factors are associated with their attitude toward HIV and stigmatizing attitudes toward PLWH.

D. Conceptual Framework

A conceptual framework is proposed in order to understand the factors that are associated with stigmatizing attitudes to HIV and PLWH by nurses. There may be additional factors contributing to stigmatizing attitudes toward PLWH not included in this study, but none have been identified in our extensive literature search.

The framework describes the associations between nurses’ background (age, gender, monthly income, working experience, and educational background), AIDS care
factors (HIV and AIDS care training, perceived competence to care for PLWH, and perceived workplace stigma), HIV knowledge, and religious related factors (religious identification, religiosity, and hospital religious affiliation) with their stigmatizing attitudes toward PLWH (See Figure 2). The independent variables (nurses’ background, AIDS cares factors, HIV knowledge, and religious related factors) are hypothesized to be associated with the dependent variable stigmatizing attitudes toward PLWH.

Most of those independent variables have been found to relate to stigmatizing attitudes in previous studies. The background factors of age, working experience, and educational background have all been identified as negatively associated with stigmatizing attitudes toward PLWH. Older, more experienced, and more educated nurses had less stigmatizing attitudes. No studies were located that examined gender or income influence to stigmatizing attitudes toward PLWH, but there are included because these factors are important in shaping people’s beliefs.

The AIDS care factors include HIV training, perceived competence to care for PLWH, and perceived workplace stigma. The HIV and AIDS care training and perceived competence to care for PLWH have been identified as associated with less stigmatizing attitudes toward PLWH. No studies were located that examined perceived workplace stigmatizing attitudes toward PLWH, but there are included because perceived workplace stigma indicating other nurses in the same setting are seen to express stigmatizing attitudes and discriminating behavior toward PLWH.

HIV knowledge had been identified as positively associated with stigmatizing attitudes toward PLWH. Knowledgeable nurses also had less fear of contagion of HIV from PLWH. Religious factors include religious identification (religion), religiosity, and
hospital religious affiliation. Only religiosity had been identified in a few previous studies as negatively associated with stigmatizing attitudes toward PLWH. Very few studies were located that examined religion and hospital religious affiliation and stigmatizing attitudes toward PLWH, but this factor is included because a prior study found that policy within hospitals contributed to nurses’ stigmatizing attitudes toward PLWH.

Based on these explanations, the factors associated to stigmatizing attitudes toward PLWH examined in this study are background (age, gender, monthly income, working experience, educational background), AIDS care factors (HIV and AIDS care training, perceived competence to care for PLWH, perceived workplace stigma), HIV knowledge, and religious factors (religious identification, religiosity, hospital religious affiliation).
III. METHODOLOGY

A. Design

This study used a cross sectional correlation design. Investigator surveyed nurses’ HIV knowledge, religiosity, perceived workplace stigma, and stigmatizing attitude toward HIV. The data were collected by a self-administered questionnaire at one point in time. The investigator then assessed the association between individual characteristics (age, religion, hospital affiliation, working experience, educational background, and training on HIV and AIDS care) and nurses’ HIV knowledge, religiosity, perceived workplace stigma, and stigmatizing attitudes.

B. Setting

The investigator purposively selected a province in Indonesia inhabited by people with diverse religions that also has large hospitals with diverse religious affiliations (e.g. Islam, Protestant, & Catholic), where at least 100 – 150 nurses have experience in caring for PLWH or had observed other nurses caring for PLWH. Based on those inclusion criteria, the site selected for data collection was the province of DKI Jakarta.

DKI Jakarta is the province where the capital city of Indonesia, Jakarta, is located. DKI Jakarta province is located on the west of Java Island and is populated by more than 13 million inhabitants (See Figure 3). Jakarta is the largest city in Indonesia. Jakarta is known as the center of government. The province also has the highest number of reported cases of HIV. Jakarta has around 40 hospitals and 150 clinics. Nine hospitals are referral hospitals for HIV care in Jakarta. Around 18,000 nurses work in hospitals, clinics and
other institutions like colleges of nursing, Ministry of Health, and the Ministry of Education.

C. Sample

In this study investigator applied a combination of purposive and convenience sampling. Purposive sampling was used to select four hospitals and then convenience sampling was used to obtain individual nurse participants at each hospital.

In a prior study, the investigator found stigmatizing attitudes toward PLWH by nurses in a general-government hospital (Waluyo, Nurachmah, & Rosakawati, 2006). In this study, the investigator wanted to examine the stigmatizing attitudes toward PLWH in a wider variety of hospitals in order to have a sample of nurses that included difference religions. There are hospitals with many different types of affiliations that provide health care in Jakarta, Indonesia. Examples of affiliation are military hospitals serving their troops, big companies that serve their staffs, and religious health facilities. Because religious values have been identified as potentially related to stigmatizing attitudes toward PLWH (Kopacz, Grossman, & Klamen, 1999; VanderStoep & Green, 1988), investigator wanted to include hospitals with different religious affiliations. Although they are affiliated with specific religious organizations, they give health service to the general population. Religiously affiliated hospitals usually do not require employees to belong to their specific religion, but nurses of that religion may be attracted to that hospital. In hospitals that are affiliated with one religion, that religion’s beliefs guide policy and procedure and influence the organizational culture and the health services they provide.
The selected hospitals include three religiously affiliated hospitals, Islamic, Protestant, Catholic, plus a general government affiliated hospital. The Islamic hospital has 403 beds and started to care for PLWH in 2003. The Catholic hospital has 464 beds and started to care for PLWH in 2002. The Protestant hospital has 350 beds and started to care for PLWH in 1999. As a national referral hospital, the general hospital has 1500 beds and started to care for PLWH in the early 1990s.

One visible sign of religious affiliation at the different hospitals is the nurses’ uniform. At the Islamic hospital, Islamic female nurses have to wear “jilbab” or a veil that covers their hair; while in the Catholic hospital, a Catholic nurse has to wear a cross pinned on the uniform. The investigator observed that each of religiously affiliated hospitals had certain religious activities held regularly within the hospital. In the Islamic and general hospitals, they schedule religious gathering for prayers and discussion of religious teaching at least once a day. This session was open to any health professional, the general public, and visitors within the hospital. There were also a longer “Sholat Jum’at” or “Friday Prayer”, and other less religious observances. The Catholic and Protestant hospitals also had Bible reading and discussion at least once in a shift. Thus, there were clearly different religion specific activities in all four hospitals. To explore both differences related to individual religion and the impact of hospital’s religion based culture, the investigator used hospitals with different religious affiliations as the sites for the study.
a) Sample Size and Power Analysis

The optimal sample was determined by the desired level of significance, level of power, and effect size (Cohen, 1988; Murphy & Myors, 2004). The investigator wanted adequate power to detect a medium effect size of 0.25. If the sample size is too low, the findings may fail to identify important relationship as significant, while if sample size is too large, time and resources will be wasted. This study planned to use ANOVA, Pearson correlation & Multiple Linear Regression to examine differences among groups and the association between dependent & independent variables. Investigator used G*Power 3.0.10 to calculate the total sample needed for each of these analyses (Faul, Erdfelder, Lang, & Buchner, 2007). When one way ANOVA is utilized, with the effect size f of 0.25, \( \alpha \) (alpha) error probability < 0.05, Power (1-\( \beta \) error probability) < 0.85, and the number of groups = 4, the sample that needed to be recruited was 255 nurses. For Pearson correlation and multiple linear regressions, the total sample needed was below 200 nurses. Therefore, the total sample needed for these 3 different statistics methods, was estimated to be 255 nurses. However, to allow for clustering by site (hospital), the estimated total sample was multiplied by 1.5 and become 383, rounded to 400. Therefore, the total sample needed from each of the four hospitals was 100 nurses.

b) Individual Nurses Selection Criteria and Recruitment

The selection criteria for the individual nurses in this study were: 1) graduated from a Nursing Assistant, Diploma, or BSN program, 2) experienced in caring for HIV patients or observed other nurses caring for HIV patients, and 3) working in one of the four selected hospitals in DKI Jakarta province. From each hospital, the researcher
recruited 100 nurses using convenience sampling. The researcher put flyers about the study on the hospital information boards to recruit the nurses. At each hospital, the recruitment process ended when the researcher enrolled 100 nurses.

D. Procedures

After purposively selecting the four referral hospitals in Jakarta, the investigator sent the research proposal to the hospitals’ directors to review the procedures and protection of the subjects in the study. Institutional Review Board (IRB) approval was received at the University of Illinois at Chicago, and the directors from the four hospitals in Jakarta, Indonesia reviewed the research proposal and agreed that the research assured protection of human subjects.

Then the investigator met the nurse manager in each hospital to discuss the study and make arrangements to recruit nurses who have experience caring for PLWH or have been observing other nurses caring for PLWH. Flyers were put on the announcement board to recruit nurses in each hospital. The nurses responded to the flyers by calling, text messaging and emailing. The investigator responded to the nurses at each hospital, using the script for initial contact and screening. Eligible nurses were recruited until 100 nurses had agreed to participate at each hospital. Thus, the total sample from all four hospitals in Jakarta was 400 nurses.

At each hospital, the investigator arranged three possible sessions for nurses to attend. Nurses were asked to choose one of the three sessions at a date and time that was convenient for them. Usually, there were 30 - 40 nurses in one session. The nurses were asked to be seated in a group in the arranged classroom. The investigator explained the
procedures and obtained informed consent from the nurses at each session. Once the nurses agreed to participate in the study, the investigator distributed the questionnaire.

To ensure privacy, the nurses were seated in a classroom and separated by an empty chair. The seating arrangement ensured that nurses could not see each other’s answers. When the nurses had the questionnaire, the investigator answered and explained any sentence or word that they did not understand. No identifying information (e.g., names, address, telephone, etc.) was collected from the nurses. The questionnaire took 30 to 45 minutes to complete.

As an incentive for participating, each nurse was offered a free two-day seminar on HIV and AIDS nursing care. The participants also received lunch during the seminar and received a certificate with continuing education credit hours for their attendance. These credit hours could be used for them to maintain or upgrade their knowledge and skills.

E. Measures

The researcher developed the individual characteristics measures. The measures of HIV knowledge, religiosity, perceived workplace stigma, and stigmatizing attitudes toward PLWH were based on existing measures in English previously used in the US and Africa, and translated into Indonesian. All scales had readability at an acceptably low level. One scale was designed for the third-grade level, another one was fourth-grade level, and two were designed for fifth-grade level. Psychometric properties of the scales in previous studies are discussed here; psychometrics in this study are presented in results. The complete questionnaire is in the appendix.
a) Individual characteristics

The first part of the questionnaire asked about individual characteristics. These characteristics included age, gender, religion, monthly income, working experience, and educational background. Other individual characteristics included whether the subject had ever received any specific training on HIV and AIDS care and whether they perceived themselves as competent to care for PLWH.

b) HIV knowledge

HIV knowledge of the nurses was assessed using the HIV-KQ-18 questionnaire (Carey & Schroder, 2002). This instrument was developed to assess lay people’s knowledge needed for their work regarding HIV prevention. Originally this measure consisted of 45 statements developed by Carey, Morrison-Beedy, & Johnson (1997). Carey & Schroder then selected 18 items from 45 items based on representation of core facts that should be assessed. The questions are answered as true/false, and the total score sums the correct answer for each item. Higher scores indicate greater knowledge. Response categories to all questions in HIV knowledge include the following: 1 = true; 2 = false; and 8 = don’t know. Questions were recoded to correct or incorrect, with “don’t know” considered incorrect. An example of the item was “Coughing and sneezing DO NOT spread HIV”, and the nurse will answer whether the sentence is true, false, or they do not know the answer.
c) Religiosity

Religiosity was measured using the beliefs and values measure developed by King, Speck & Thomas (2001). The questions in this instrument assess participants’ practice of his/her daily or weekly prayers, and the influence of beliefs on his/her life and attitudes. Each item was scored on a Likert type scale from 0 = strongly disagree to 4 = strongly agree. Factor analysis and internal consistency analysis identified that, for their sample, the religiosity tool consists of one factor with 20 items. The internal consistency (Cronbach alpha) of this tool in their sample was .94.

d) Perceived Workplace HIV Stigma

This tool was developed by Holzemer (2009) and has been pilot tested and validated in the African countries of Lesotho, Malawi, South Africa, Swaziland and Tanzania. This tool was the first instrument to measure nurses’ perception of other health worker stigmatizing and discriminating against PLWH in their health facility (Uys, et al., 2009). HASI-N is a 19-item measure composed of two factors: 10 items on nurse stigmatizing patients and 9 items on nurses being stigmatized. Since the research questions in this study were asking only whether workplace HIV-stigma was perceived as present by the nurses, the nine items on nurses being stigmatized were not used. In the African studies, the internal consistency (Cronbach alpha) of this 2-factors instrument was .91. Nurses marked how often they had observed an event of stigma during the past 3 months (0 [never], 1 [once or twice], 2 [several times], 3 [most of the time]). The responses
are analyzed by summing each item and dividing by the number of items for that factor. The results ranged from 0 to 30. The higher the score, the higher the perceived workplace stigma by the nurses.

e) Stigmatizing Attitudes toward PLWH

Stigmatizing attitudes were measured using a measure adopted from the Nurse AIDS Attitude Scale (NAAS) version 2 (Preston et al., 1995; Preston et al., 1997). Version 1 of NAAS had 41 items with 3 subscales: Homosexuality, Nursing care concerns, and Societal-professional concerns. Version 2 is a 45 items instrument with 5 subscales: Homosexuality, Nursing care concern, Societal-professional, Women, and IV drug abusers. Each item was scored on a Likert type scale from 1 = strongly agree to 5 = strongly disagree. In the previous studies in the US, the internal consistency coefficient of Version 1 subscales were .96, .83, and .72 respectively. Version 2 had internal consistency coefficients of .95, .64, .75, .80, and .82 for the five subscales: Homosexuality, Women, IV drug abusers, Nursing care concern, and Societal-professional. In this study a modified NAAS version 2 was used. The “woman” sub scale was dropped because there were only 2 items used to measure stigmatizing attitudes toward woman living with HIV and the internal consistency (Cronbach alpha) was very low (α< .70).

Pilot Study

In this study, the investigator used measures which were previously developed and used in English, predominantly in the US. The population of this study was Indonesian nurses and most of them speak only Bahasa Indonesia. Therefore, the
investigator conducted a small pilot to establish the appropriateness of these measures that were planned to be used. This pilot was done with a small number of nurses, in preparation for the major study survey in an Indonesian setting. The first step for the pilot was to translate all of the tools into Bahasa Indonesia. The process of tool translation used an expert bilingual panel. Based on Brislin (1970), there are four methods of tool translation: 1) back-translation; 2) bilingual technique; 3) committee approach; and 4) pretest procedure. However, back-translation is the best known method of translation that can maintain similarity and agreement in meaning of the original and translation versions (Behling & Law, 2000). This method is widely used for instrument validation and the most common method for translating measures to be used in cross-cultural research (Cha, et al., 2007).

The bilingual experts were doctor’s and master’s prepared nurses educated in the USA or Australia. One bilingual expert translated the measures from the source language into the target language, and the second bilingual expert who had not seen the original version did back-translation into the source language. Then the back-translated version was compared with the original version. There were not many errors found in the back-translation process. When errors were found in the back-translation version, third translator tried to retranslate the item. Using other translators was aimed at obtaining a fresh translation for the instrument from original to target language (Cha, et al., 2007).

The investigator found that not every word in English can be translated easily into Bahasa Indonesia. The first two independent bilingual translators agreed that sometimes words in English cannot translate literally into Bahasa Indonesia. The
appropriate conceptual meaning is more important, and conceptual translation focused on meaning helps to ensure that each item is conceptually similar to the sentence in the original language. Hopefully, this conceptual similarity will ensure that respondents are thinking about equivalent issues as they respond to each item, and thus maintain equivalence of meaning of the instrument in the translated version (Brislin, 1970).

For minor errors, the investigator did not repeat the re-back translation process. Instead, the bilingual translators compared the results and came up with an agreed upon preferred version. For example, when the first bilingual translator translated “Pulling out the penis before climaxes/ejaculation keeps a woman from getting HIV during sex”, the translated version became “Mengeluarkan penis dari vagina sebelum terjadi ejakulasi, membuat wanita dapat terhindar dari infeksi HIV saat berhubungan badan dengan pria ODHA”. When the item was translated back to English it became “Pulling out the penis from the vagina before ejaculation keeps a woman from getting HIV during sex”. There were the extra words of “from the vagina” that were not there in the original language. The investigator saw the additional words for “from the vagina” were not a big change in meaning. It has same meaning although there were additional words within the sentence. Therefore, investigator didn’t ask other translators to do a new translation process. Investigator left these words in the sentence to ensure clarity.

The next step was to test the translated tools with Indonesian nurses. The purpose was to assess whether the translated tools were easily understood and answerable by local nurses who were recruited in the pilot study. Investigator
recruited thirty nurses who had experience caring for PLWH or observed other nurses caring for PLWH. They were students at the College of Nursing at the University of Indonesia, in the bridging program from diploma to bachelor nursing.

The nurses were asked to fill out the translated questionnaire, and also to give comments on the items which they did not understand. The items with the most frequent comments were evaluated and revised to reduce confusion to participants. Based on the comments from nurses in pilot study, changes were made to several items.

In the HIV knowledge measures, a change was made on item #12. The sentence was changed because in Indonesia the “skin” condom is not commonly available. Since 90% of respondents had never seen and heard about this, an additional word was added to that item “non-latex” after the word skin condom.

In the religiosity measure, changes were made on items # 2, 3, and 10. These items were difficult to understand by the nurses since they are not used to hearing or reading such explanations or expressions. Item 2 said “I believe I have a spirit or soul that can survive my death”. They did not know what the “spirit” means in item number 2. This was resolved by not using spirit. Item # 3 said “I believe in a personal God”. There is no expression of “personal God” in our language. This was resolved by using “perceivable as a human being” rather than personal God. Item 10 said “I feel most at one with the world when surrounded by nature”. Investigator revised the sentence into “Saya merasa menyatu dengan dunia saat berada di keindahan alam” or “I feel united with the world when surrounded by nature”. Therefore, these revisions make the sentence clearer to the Indonesian reader.
The 13 changes in the stigmatizing measures were made on one homosexuality item, nine IDU items and three items on concerns about nursing PLWH. The changes in homosexuality were on the item of “Homosexual men should be given social equality”. In the beginning version of back translation it was translated as “Pria homoseksual perlu diberikan kesetaraan sosial dan kesamaan hak”. Some comments mentioned that they did not understand the meaning of “given social equality”. They suggest this sentence should be clarified by stating to whom the comparison need to refer. Then the sentence was changed into “Pria homoseksual perlu diberikan kesetaraan sosial dan kesamaan hak seperti layaknya pria heteroseksual” or “Homosexual men should be given social equality like heterosexual men”.

The changes in the 9 items that refer to IDUs were necessary because the nurses were not used to the terminology that is commonly used in research in the US. The common name for IDU in HIV research is “PENASUN”, the abbreviation from “pengguna Narkoba Suntik” or injection drug use. Since many nurses do not understand that abbreviation, investigator decided to use the full name for IDUs.

The changes in concerns about nursing PLWH were made in three items. The first item was “I am bothered that I might not be able to prevent myself from contracting AIDS”. The back translation version was “Saya merasa terganggu oleh fikiran bahwa saya tidak mampu untuk mencegah diri saya tertular AIDS” or “I feel disturbed by the thought that I was not able to prevent myself contracting AIDS”. Many of nurses complained of not understanding this translation. They suggested something more direct and to the point. Then finally the revision version changed into
“Fikiran bahwa saya tidak mampu untuk mencegah diri saya dari tertular AIDS selalu berada di benak saya” or “I cannot stop thinking that I might not be able to prevent myself from contracting AIDS”. The other two items had similar changes, which involved additional words to make the sentence clearer. The items were changed on the stigmatizing attitudes questionnaire #26 and 28.

After revisions, questionnaires were sent to three professional experts in HIV and religiosity research to assess content validity. They were asked to write any comments and recommendations about the questionnaire. The investigator modified items after careful assessment of all suggestions. From the experts investigator got additional suggestions regarding the HIV knowledge and stigmatizing attitudes measures. The suggestions focused on how the items in the measures can create some cultural sensitivity problems for the local majority Muslim people. For example, for the back translation of item number 17, investigator agreed to add an explanation on what oral sex means. The experts were concerned that the definition of oral sex might be taboo for some persons. One expert also underlined item 6 in stigmatizing attitudes measures where mentioning a homosexual as their clergy or religious leader might offend some people. The investigator reviewed comments from participants in pilot study to see whether or not there were comments or suggestions related to the language that investigator used. The investigator did not find comments or suggestions regarding the explanation of homosexuality and oral sex. Perhaps, the nurses in the pilot study were more accustomed to the terminology and explanation about sexuality and gay (homosexuality) than the experts.
Our careful translation, expert opinion, consultation, and pilot identified only minor changes needed. This preliminary work provided evidence that the measures were culturally appropriate and readily be understood by the target population of Indonesian nurses. Indonesian content experts found the items both relevant and culturally appropriate. A pilot study documented that the measures were comprehensible and acceptable for the intended target group.

F. Data management

The investigator assigned each completed instrument a unique number that also identified the hospital site. The completed questionnaires were stored in a locked cabinet available only to the principal investigator. Data were managed by developing a database program in SPSS 15 software for data entry and data retrieval. The questionnaires and the responses will be destroyed in 5 years after the PI analyzes the data, completes his report, and has published it in related journals.

G. Data analysis

Data analysis started with examining the validity and reliability of three tools (Religiosity, Perceived Workplace Stigma, and Stigmatizing Attitudes toward PLWH) within an Indonesian nurse population using internal reliability and exploratory factor analysis. Scales were created based on the existing measures.

Then the investigator analyzed data to answer the two research questions. Research Question 1 asked “What is the level of stigmatizing attitudes of Indonesian nurses?” Descriptive analyses (means) were used to answer Questions 1. Question 2
asked “What factors are associated with the stigmatizing attitudes toward PLWH?”

Multiple linear regressions were used to answer Question two. Prior to conducting the multivariate analysis, bivariate analyses were conducted to examine the difference (ANOVA analyses) in HIV knowledge, religiosity, perceived workplace stigma, and stigmatizing attitudes toward PLWH by nurses’ background factors. In addition, Pearson correlation analyses were used to examine the bivariate correlation among the internal variables: HIV knowledge, religiosity, perceived workplace stigma, and stigmatizing attitudes toward PLWH.

There were no missing data found except for participant’s monthly income, since the investigator checked every completed questionnaire. The participants cooperated to complete the missing questions, after the investigator checked every item in every page in the questionnaire. However, some participants did not want to fill out the question on their monthly income.

H. Ethical consideration and the protection of human subjects

The main ethical issue with a study assessing nurses’ personal attitudes is the threat to privacy and confidentiality for someone who participates in the study (Penrod, Preston, Cain, & Starks, 2003). Confidentiality might be a high concern for participants because the study was conducted at their workplace. Participants were assured that their individual responses would not be shared with anyone, including their supervisor or hospital administrator. Participants had the option to decline to participate in the study after the researcher explained the study. Also, when they felt that some questions in the questionnaire threatened privacy, participants could decide not to continue his/her
participation in the study or not to answer that question. Possible risks and potential
benefits were explained and discussed with them prior to administering the questionnaire.
Informed consent was obtained in writing before they participated in the study. Their
participation was voluntary. No one declined to participate after the investigator
explained about the informed consent.

This study did not offer any direct benefit for the participants regarding
information that they gave except a non-monetary 2-day seminar on HIV and AIDS
nursing care compensation for their time.
IV. RESULTS

The purpose of this study is to determine the extent to which the nurses’ background (age, gender, monthly income, working experience, and educational background), AIDS care factors (HIV and AIDS care training, perceived competence to care for PLWH, and perceived workplace stigma), HIV knowledge, and religious factors (religious identification, religiosity, and hospital religious affiliation) affect their stigmatizing attitudes toward HIV and PLWH. The research questions of this study are: (1) What is the level of stigmatizing attitudes of Indonesian nurses?; and (2) What factors are associated with the stigmatizing attitudes toward PLWH? This chapter first presents the psychometric properties of the measures, and sample demographics, and then each of the two research questions is addressed.

A. Psychometric Properties of the Measures

This study used four different measures that had never been used in Indonesia before: HIV knowledge, religiosity, perceived workplace stigma, and stigmatizing attitudes toward PLWH. Psychometric properties for the HIV knowledge measures were not examined since the different domains of knowledge are not necessarily highly correlated and since facts about HIV transmission and prevention are the same across societies. Psychometric testing was done on measures of religiosity, perceived workplace stigma, and stigmatizing attitudes toward PLWH to determine whether these measures had acceptable internal consistency reliability and if the original subscales were also found in our Indonesian samples.
The religiosity scale originally consisted of one factor with 20 items and an internal consistency Cronbach alpha of .94. Like the study using this measure in the US, factor analysis, in our Indonesian sample this measure had only one factor. A minimum factor-item correlation above .40 was set by the investigator. Items two, three, five, and seven were not highly related with other items, since the factor loading was below .40. These items were deleted. These items asked about abstract concepts (spirit and evil forces) that Indonesian nurses found difficult to understand. The remaining 16 items were incorporated into one factor and explained 28% of the variance in the measure. Adding more items did not increase explained variations. The internal consistency Cronbach alpha of this religiosity tool in this study was .84. Thus, the psychometric properties were similar to the measure in the US and the measure was used with few modifications (see Table 4.1).

Perceived workplace stigma was measured using the first subscale (perception of nurses stigmatizing PLWH) of the HIV and AIDS Stigma Instrument Nurse (HASIN) created by Uys et al (2009). Using factor analysis, the investigator examined whether the original subscale structure was replicated in the Indonesian sample. Based on the Indonesian nurses’ sample, the factor analysis identified one factor that included all 10 items. The 10 items explained 42% of the variance in the measure. The internal consistency of the perceived workplace stigma tool in this study was .82. This test confirmed the same psychometric properties for this sample of Indonesian nurses as the initial scale tested with nurses in Africa.

Stigmatizing attitudes were measured using the Nurses’ Attitudes to AIDS Scale (NAAS) version 2 created by Preston, Young, Koch, & Forti (1995). This study used the
stigmatizing attitudes measure adopted from NAAS version 2, omitting the women sub-scale, due to its low reliability as explained in Chapter III. Thus, the stigmatizing attitudes scale used in Indonesia had 4 sub-scales (Homosexuality, Injection Drug Use, HIV and AIDS Care, and Social-professional Concern). With a U.S. sample the internal consistency of the five sub-scales were .95, .64, .75, .80, and .82 respectively. Using factor analysis, the investigator examined whether the original subscale structure was replicated in the Indonesia sample. In the Indonesian nurses’ sample, factor analysis identified a two-factor model with 24 items (see Table 4.1). The 24 items were incorporated into two factors and explained 15% of the variance in the measure. Adding more factors did not increase explained variation.

In a conceptual examination of these two factors, the investigator classified the first new factor, with 16 items, as the individual’s attitudes toward a PLWH person with AIDS. Factor One (attitude toward persons living with AIDS) was constructed from the combination of the former subscales of Homosexuality, Injection Drug Use subscale, and two items from former subscale four Social-professional concern (item 32 and 36). The second new factor, with eight items, related to HIV care concerns. Factor Two (HIV care concerns) was constructed with a combination of items from the former subscale HIV and AIDS care and two items (items 39 and 40) from the former subscale Social-professional concern. The internal consistency of Factor One (attitudes to person with AIDS) was .85, and Factor Two (HIV care concern) was .75. The overall internal consistency Chronbach Alpha of the stigmatizing attitudes measures was .83 (see Table 4.1).
B. Background Factors

This study recruited a convenience sample of 400 Indonesian nurses who participated in this study. These 400 nurses were from four different hospitals purposively selected to incorporate religious diversity. Three hospitals are owned by religious foundations, one each of Islamic, Protestant, and Catholic foundations. The fourth hospital was a general government hospital which is not religiously affiliated. The researcher recruited 100 nurses as respondents from each hospital. However, there were four nurses from the Hindu religion in the Catholic hospital. In order to have clearer and simpler interpretation, the researcher decided not to use these respondents in this study. Therefore, data from 396 participants were used in this study. Because participants were recruited by hospital, the investigator examined both characteristics of the overall sample and differences by hospital.

Age. The average age of the nurses was 35.45 years, with a Standard Deviation (SD) of 9.46 and a range from 20 to 55 years (see Table 4.2). The average age of nurses in the four hospitals was significantly different ($\chi^2 = 53.71; p = .001$). The average age of nurses in the Catholic hospital was higher than the mean age among the other three hospitals. The Kruskal Wallis test of significance was used since the normality distribution requirement for t-test was violated.

Working experience. The average working experience of the nurses was 13.41 years, ranging from 1 to 39 years (SD = 9.25). Consistent with the higher mean age of nurses in the Catholic hospital, the mean years of work experience of the nurses in this hospital was the highest (18.15 years), followed by the Islamic hospital (12.81), the
general hospital (13.43), and the Protestant hospital (9.73). These average working experience of nurses in the four hospitals was significantly different ($\chi^2 = 15.96; p = .001$).

*Gender.* There were fewer male nurses (11%) than female (89%) (see Table 4.2). The proportion of male and female nurses in four hospitals was significantly different ($\chi^2 = 16.262; p = .001$). The Islamic hospital had a higher proportion of male nurses (20%) than the other three hospitals.

*Monthly income.* In this study, monthly income was defined as total household income including income from a spouse, or other household member. The distribution of nurses’ monthly income ranged from US $111 to $3,300. The average monthly household income of the nurse was approximately US $406.00 (SD = 306.00). Nurses in the Islamic hospital had significantly higher average household monthly income (US $494.50) than nurses in the other hospital. The lowest monthly income average was for nurses in the Protestant hospital (US $272.00).

*Educational background.* Most of the nurses in this study graduated from a diploma nursing program (73.2%). Only a few of them graduated from bachelor’s programs in nursing (18%). Nine percent of the nurses completed a nursing assistant’s program, which is equal to secondary school level. By hospital, the educational background of nurses was not significantly different (Table 4.2). However, the Protestant hospital had the highest percentage (78%) of nurses graduated from diploma program, followed by the Islamic hospital (76%), the general hospital (73%), and the Catholic hospital (62%). The Catholic hospital had the highest percentage (29%) of nurses who
graduated from a BSN program, followed by the Islamic hospital (23%), the general hospital (12%), and the Protestant hospital (7%).

C. AIDS Care Related Factors

*HIV and AIDS care training.* Most nurses (65.2%) have never had specific training on HIV and AIDS care. Just over a quarter had one training (26.2%), and only a few of them had two or more training programs on HIV and AIDS nursing care (8%). The proportion of nurses who have HIV and AIDS care training in the 4 hospitals was not significantly different. However, the general hospital had the lowest percentage (20%) of nurses who have had training on HIV and AIDS care, while the highest percentage of nurses who have had training was from the Catholic hospital (53%).

*Perceived competence to care for PLWH.* Although the majority of the nurses never had special training on HIV and AIDS care, most of them (63.2%) perceived that they were competent to give nursing care toward PLWH. Few nurses perceived that they were not competent or doubted that they were competent to care for PLWH. The proportion of nurses who perceived themselves as competent was not significantly different in the four hospitals. However, the Catholic hospital had the highest percentage (87.5%) of nurses perceived that they are competent to care PLWH, and the lowest percentage of nurses who perceived that they were competent was from the general hospital (46%).

*Perceived workplace stigma.* The mean score of nurses’ perceived workplace stigma from the sample was 2.45 (maximum score of 30) with a range of 0 to 29 (Table 4.3). The mean score of perceived workplace stigma was significantly different among
the four hospitals (Table 4.12). The lowest mean score of perceived workplace stigma was from the Catholic hospital, and the highest was from the general hospital.

D. HIV Knowledge

*HIV knowledge.* The nurses had an average HIV knowledge score of 12.53 (maximum possible score of 18), with a range from 4 to 18 correct answers. The mean score of HIV knowledge was significantly different among the four hospitals (Table 4.12). The lowest mean score of HIV knowledge was from the Protestant hospital, and the highest was from the Catholic hospital.

E. Religious related Factors

*Religiosity.* The average of nurses’ religiosity level from the sample was 56.24 (maximum possible score of 80) and with a range of 32 to 64. The mean score of religiosity was significantly different among four hospitals (Table 4.12). The lowest mean score of religiosity was from the Catholic hospital, and the highest was from the Islamic hospital.

*Religious identification.* Although more than half the nurses were Muslim (53.5%), the sample was diverse, including 29.5% Protestant and 17% Catholic (Table 4.2). As expected, the proportion of Muslim, Protestant, and Catholic nurses in the four hospitals was significantly different ($\chi^2 = 443.51; p = .001$). Both the Islamic and the general hospitals had predominantly Muslim nurses, which reflect the fact that most Indonesians (88.2%) are Muslim (Pew Research, 2009).

*Summary of nurses’ background and their level of Stigmatizing Attitudes.* Nearly all of the nurses’ background factors, AIDS care factors, HIV knowledge, and religious
related factors were significantly different by hospital religious affiliation. In summary, nurses in the Catholic hospital were older and more experienced, had higher educational background, more training on HIV and AIDS care, and perceived themselves as more competence to care PLWH.

F. Research Question 1: What is the level of stigmatizing attitudes of Indonesian nurses?

The mean score of stigmatizing attitudes of the nurses in this study was 78.67 (maximum possible score of 120) with standard deviation of 11.85 and a range of 44 – 110 (see Table 4.3). The mean score of stigmatizing attitudes was significantly different among the four hospitals (Table 4.12). The lowest mean score of stigmatizing attitudes was from the Catholic hospital, and the highest was from the Islamic hospital.

G. Research Question 2: What factors are associated with nurses’ stigmatizing attitudes to HIV?

Before describing the association between stigmatizing attitudes with all the independent variables, the bivariate relationship between stigmatizing attitudes and each of the predictors will be described. The investigator used analysis of variance to examine differences in HIV knowledge, religiosity, perceived workplace stigma, and stigmatizing attitudes by the categorical demographic variables. Then, the investigator used correlations to examine the bivariate relationship among the ordinal level of variables of HIV knowledge, religiosity, perceived workplace stigma, and stigmatizing attitudes.
1. Differences in HIV knowledge, religiosity, perceived workplace stigma, and the level of stigmatizing attitudes by nurses' background factors

Age. Investigator examined whether nurses' HIV knowledge, religiosity, perceived workplace stigma, and stigmatizing attitudes differed by nurses' age (Table 4.4). Nurses over 35 years old had significantly higher mean knowledge scores (13.18) than younger nurses (11.98) ($F = 26.82; p < .001$). The average perceived workplace stigma of older nurses was one point lower than younger nurses ($F = 6.12; p < .05$). The average stigmatizing attitudes to ward PLWH for nurses over 35 years old were 4 points lower than for nurses younger than 35 years old ($F = 15.11; p < .001$). Religiosity did not differ by age. Thus, older nurses had higher HIV knowledge scores, lower perceived workplace stigma, and lower stigmatizing attitudes.

Gender. Gender did not relate to HIV knowledge, religiosity, perceived workplace stigma, or stigmatizing attitudes toward PLWH (Table 4.5).

Monthly Income. Monthly income did not relate to HIV knowledge, stigmatizing attitudes to ward PLWH, or perceived of workplace stigma (Table 4.7). The mean score for religiosity from nurses with a monthly income of US $406 or less was significantly lower (2 points) than nurses who have monthly income higher than US $406 ($F = 11.65; p < .001$).

Working Experience. Nurses who had more work experience had significantly higher HIV knowledge ($F = 22.01; p < .001$), lower perceived workplace stigma ($F = 4.45; p < .001$), and lower stigmatizing attitudes toward PLWH ($F = 10.56; p < .001$) (Table 4.8).
**Educational Background.** Nurses who graduated from BSN programs had significantly higher HIV knowledge ($F = 23.49; p < .001$), higher religiosity ($F = 4.46; p < .05$) and lower stigmatizing attitudes toward PLWH ($F = 25.54; p < .001$). There were no differences by educational background in workplace stigma (Table 4.9.).

**AIDS Care Factors**

**HIV and AIDS Care Training.** Nurses who had HIV/AIDS care training had significantly higher HIV knowledge ($F = 6.50; p < .01$). However, there were no significant differences in religiosity, perceived workplace stigma, and stigmatizing attitudes toward PLWH between nurses who did and did not have training on HIV and AIDS (Table 4.10).

**Perceived Competence to Care for PLWH.** Nurses who perceived themselves as competent had significantly higher HIV knowledge ($F = 21.29; p < .001$), lower perceived workplace stigma ($F = 8.31; p < .01$), and lower stigmatizing attitudes toward PLWH ($F = 20.14; p < .001$). They did not differ in religiosity (Table 4.11).

**Religious Factors**

**Religion.** Nurses who identified themselves as Muslim, Protestant, or Catholic differed in their HIV knowledge ($F = 4.62; p < .01$), religiosity ($F = 4.03; p < .05$), perceived workplace stigma ($\chi^2: 17.80; p < .001$), and stigmatizing attitudes toward PLWH ($F = 53.49; p < .001$). Post Hoc analyses showed that the Catholic nurses had significantly higher HIV knowledge than both Muslim and Protestant nurses (Table 4.6).
Muslim nurses had significantly higher religiosity, higher perceived workplace stigma, and higher stigmatizing attitudes than Protestant and Catholic nurses (p < .001).

_Hospital Religious Affiliation._ Hospital affiliation related significantly to nurses’ HIV knowledge (F = 9.921; p < .001), religiosity (\(\chi^2 = 13.75; p < .01\)), perceived workplace stigma (\(\chi^2 = 24.22; p: .001\)), and stigmatizing attitudes toward PLWH (F = 38.871; p: .001). Post Hoc analyses showed that the Catholic hospital nurses had significantly higher HIV knowledge than nurses at all three of the other hospitals (Table 4.12). Using the Kruskal-Wallis test for ordinal variables, the average score for religiosity of nurses from the Islamic hospital was significantly higher (1.71 – 2.43 points) than nurses’ mean score in the Protestant, the Catholic, and the general hospitals (p < .01). Using the Kruskal-Wallis test for ordinal variables, the average score for perceived of workplace stigma by nurses from the Catholic hospital was significantly lower (about 1.5 – 1.9 points) than nurses in the Islamic hospital, the Protestant hospital, and the general hospital (p < .05). Post Hoc analyses showed that the Islamic hospital nurses had significantly higher stigmatizing attitudes toward PLWH than the Catholic, Protestant and general hospital nurses.

2. The correlation among nurses’ HIV knowledge, religiosity, perceived workplace stigma, and stigmatizing attitudes toward PLWH

There were significant correlations between nurses’ HIV knowledge and their religiosity level (r = .176, p < .01); nurses’ HIV knowledge with their stigmatizing attitudes (r = -.198, p < .01); nurses’ stigmatizing attitudes and their perceived workplace stigma (r = .271, p < .01); and nurses’ religiosity and their stigmatizing attitudes (r = .148,
p< .01). There were no significant correlations between nurses’ HIV knowledge and perceived workplace stigma; and nurses’ religiosity or between perceived workplace stigma (Table 4.15).

3. Factors associated with stigmatizing attitudes toward PLWH

A stepwise linear regression was used to examine factors that are associated with stigmatizing attitudes toward PLWH. The stepwise regression also can help answer the question of whether the model can explain the factors that are associated with stigmatizing attitudes. While in analysis of variance the investigator used age, working experience and monthly salary as categorical variables, in multiple regressions the actual number (interval scale) of age, work experience, and salary were used. Using the actual number may create more specific regression analysis results. Based on the conceptual model (Figure 2 Chapter 2) the investigator included all the variables in the following order individual factors, AIDS care factors, HIV knowledge, and religious factors as predictors. Investigator entered religiosity and religious identification together as the fourth step. Investigator entered hospital religious affiliation separately as the fifth step to better understand its contribution to stigmatizing attitudes in addition to individual religious identification. The result was tested for violation of statistical assumptions used for multiple regression techniques. The diagnostic test results showed no violation of statistical assumptions of normality and homoscedasticity, as well as the absence of multicollinearity in the model.

The regression analysis started with the first step, which included the individual background factors as a block (Table 4.15). In the first step, only educational background
of the nurses was a significant predictor of stigmatizing attitudes toward PLWH. The $R^2$ was only 0.067. The second step analyzed the individual factors plus AIDS care factors. In the second step educational background, perceived competence to care for PLWH, and perceived workplace stigma were significant predictors of stigmatizing attitudes toward PLWH. The $R^2$ was 0.156 and the change in $R^2$ was 0.089. The third step added HIV knowledge. In the third step, educational background, perceived competence to care for PLWH, and perceived workplace stigma remained significant predictors of stigmatizing attitudes toward PLWH but HIV knowledge was not a significant predictor. The $R^2$ was 0.164 and the $R^2$ increased minimally (0.008). The fourth step analyzed the blocks of individual factors, AIDS care factors, HIV knowledge, and religiosity and religion without hospital affiliation. In the fourth step, educational background, perceived workplace stigma, level of religiosity, and religion as Muslim were significant predictors of stigmatizing attitudes toward PLWH. The $R^2$ was 0.327 and the change in $R^2$ was 0.163. Both religiosity and religion as Muslim were positively associated with stigmatizing attitudes toward PLWH. The fifth step analyzed the blocks of individual factors, AIDS care factors, HIV knowledge, and Religious factors, with hospital affiliation added last. In the fifth step, low educational background, perceived competence to care for PLWH, perceived workplace stigma, level of religiosity, religion as Muslim, and being in a Catholic and Islamic affiliated hospital were significant predictors of stigmatizing attitudes toward PLWH. The $R^2$ was 0.355 and the $R^2$ increased 0.028. Hospital affiliation had a complex relationship with stigmatizing attitudes. Stigmatizing attitudes toward PLWH were positively associated with being from the
Islamic affiliated hospital and negatively associated with being from the Catholic affiliated hospital.
V. DISCUSSION

The purpose of this study was to determine the extent to which Indonesian nurses’ background (age, gender, monthly income, working experience, and educational background), AIDS care factors (HIV and AIDS care training, perceived competence to care for PLWH, and perceived workplace stigma), HIV knowledge, and religious factors (religious identification, religiosity, and hospital religious affiliation) affect their stigmatizing attitudes toward PLWH. In this chapter, the investigator first summarizes the results, followed by a discussion of measures and the findings, strength and limitation, conclusion, and lastly implication.

A. Summary of results

Significant predictors of stigmatizing attitudes toward PLWH were lower educational background, lower perceived competence to care PLWH, higher perceived workplace stigma, higher level of religiosity, religious identification as a Muslim, working at an Islam-affiliated hospital, and working at an Catholic-affiliated hospital. All three religious factors (religious identification, level of religiosity, and hospital religious affiliation) were related to stigmatizing attitudes toward PLWH. Descriptive analyses showed that nurse from the Islamic hospital had shorter working experience, lower percentage of having HIV care training, lower perceived competence to care PLWH, higher perceived workplace stigma, and lower HIV knowledge than nurses in other hospitals. Nurses in the Catholic hospital were older than nurses from the other hospitals, had more work experience, more formal education and more HIV and AIDS training, and more likely to feel competent to care for PLWH than other nurses in the other hospitals.
These differences in preparation and related factors may relate to the difference in stigmatizing attitudes by hospital.

B. Discussion

This study demonstrated that, with careful translation and pilot testing, measures of HIV knowledge, religiosity, workplace stigma, and stigmatizing attitudes which were developed in other countries can be successfully used in Indonesia. Only minor adjustments needed to be made by dropping inappropriate items that did not correlate with other items, mainly for the religiosity and stigmatizing attitudes toward PLWH measures. All the attitude measures had high internal reliability. Another strong point of this study was the use of psychometrically sound measures of HIV knowledge, religiosity, workplace stigma, and stigmatizing attitudes. These measures are now translated and have established content validity, comprehensibility, and reliability. Therefore they can be recommended for use in future research on these topics in Indonesia. Consistent use of validated and culturally appropriate measures can provide benchmarks to assess improvement over time.

a) Stigmatizing attitudes toward PLWH

The level of stigmatizing attitudes of the nurses in this study appears to be higher than the nurse groups with sample of nurses in New York, US, who were previously assessed using this measure (Preston et al., 1995). The Preston study had 41 items in the stigmatizing attitudes measure, while in this study after the pilot study the measure had only 24 items. However, with the range mean score of one to five, this study showed the
mean score of stigmatizing attitudes in Indonesian nurses (mean = 3.28) was higher than nurses in the US (mean = 2.98). The factors that may influence to the high level of stigmatizing attitudes of Indonesian nurses will be discussed below.

b) Factors influencing to stigmatizing attitudes

Low educational background was significant from the first step to the last (fifth) step, showing that low educational background has a stable relationship to more stigmatizing attitudes toward PLWH. Perceived competence in caring for PLWH was also consistently related to more stigmatizing attitudes toward PLWH. Since most of the nurses had not had any HIV-related training, it seems likely that they overrate their own perceived competence. Also, HIV training was not significantly related to stigmatizing attitudes toward PLWH, suggesting that the training that was provided for the nurses did not prepare them by reducing their stigmatizing attitudes toward PLWH.

Religiosity also was one of the significance predictors of stigmatizing attitudes toward PLWH. More religious nurses had more stigmatizing attitudes toward PLWH. Religious identification as Muslim was also a significant predictor of stigmatizing attitudes toward PLWH. But when hospital affiliation was added in the last step of the regression analysis, working in the Islamic hospital was positively related to stigmatizing attitudes, while working in the Catholic hospital was negatively related to stigmatizing attitudes. Moreover, the B score of religious identification as Muslim was decreased into half when working in the Islamic hospital was included in the regression. Therefore, these results suggest that the hospital’s policy about HIV care has a substantial role in shaping stigmatizing attitudes toward PLWH.
Background factors:

Based on the regression analysis, only lower educational background was significantly related to stigmatizing attitudes, and its relationship remained in all five steps of regression. In bivariate analyses (ANOVA), the age and working experience among Catholic nurses related to lower stigmatizing attitudes toward PLWH. Older and more experience nurses had significantly higher HIV knowledge scores, lower perceived less stigma in the workplace, and lower stigmatizing attitudes. However, this effect disappeared when educational background was included. It appears that education, age, and work experience are related and education appears to be the most powerful factor.

Thus, among background factors, only higher educational background related to significantly lower stigmatizing attitudes toward PLWH. These findings are consistent with previous study where higher educational background of health professional in China, had less stigmatizing attitudes toward PLWH (Li, et al., 2007).

Since the sample of nurses in this study were recruited from the top ranked hospitals in Indonesia, where most of them have higher educational background, it should be noted that educational background may relate to stigmatizing attitudes differently for a more representative sample of less educated nurses.

AIDS Care Factors

Perceived competence and workplace stigma were significantly and positively related to stigmatizing attitudes in regression analyses level on each step/block, but HIV training was not a significant predictor of stigmatizing attitudes toward PLWH. This study did not obtain any information about the duration or contents of training nurses had
received. However, it seems likely that the training was relatively ineffective in reducing stigmatizing attitudes.

*Perceived workplace stigma.* Perceived workplace stigma among Indonesian nurses appears to be higher than nurses in the only previous study using this measure in five different African countries. The mean score of Indonesian nurses’ perceived workplace HIV stigma from this study was 2.45, ranging from 0 to 2.9. The previous study, which used the same instrument with samples of African nurses in five countries, reported a mean score of 0.35, and a range from 0 to 2.9 (Uys et al., 2009). Compared to nurses in five African countries, Indonesian nurses have much less contact with PLWH in their clinical work, and that experience is fairly recent. The nurses in most hospital in this study had started to care PLWH in early 2000, but most hospitals have had PLWH in every ward for the only last two to three years. Nurses may have high perceived workplace stigma in part because they relatively recent experience with caring for PLWH.

*Perceived competence to care for PLWH.* Based on the regression analyses, perceived competence to care for PLWH had a significant positive impact on stigmatizing attitudes toward PLWH. In bivariate analysis investigator found that perceived competence to care of PLWH related to significantly to higher HIV knowledge and lower stigmatizing attitudes toward PLWH. A study in the US showed that perceived competence was a significant predictor of nurses’ willingness to care for PLWH because they felt prepared to care for PLWH and their anxiety and fear about contracting the HIV from their patient decreased (O’Sullivan, Preston, & Forti, 2000). However, most of the
Indonesian nurses who rate themselves as competent have not had specific HIV and AIDS care training so they may have inappropriately high confidence in their capacities.

**HIV Knowledge**

In regression analysis, HIV knowledge was not a significant predictor of stigmatizing attitudes toward PLWH. The nurses in this study had an average HIV knowledge score of 12.53 (equivalent to 69% correct). This mean score was relatively low (lower than 80%). This study result was not expected by the investigator because the instrument was developed to measure HIV knowledge among lay persons (Carey & Schroder, 2002). In general the nurses in this study have higher educational backgrounds than other nurses in the other part of Indonesia. Perhaps the relatively low HIV knowledge scores can be explained by lack of HIV training for nearly two-thirds of the nurses. Previous research has found that training in HIV/AIDS care can increase nurses’ knowledge, confidence, and quality of care (Li, et al., 2007; Anderson, Kann, Holtzman, Arday, Truman, & Kolbe, 1990; Schillo, Reischl, 1993; Adepoju, 2006). Higher HIV knowledge was significantly associated with lower stigmatizing attitudes in those studies. Congruent with previous studies in other countries, Walusimbi and Okonsky (2004) found that knowledgeable nurses had less fear of contagion of HIV from PLWH.

**Religious factors**

Religiosity. Religiosity was significantly related to more stigmatizing attitudes toward PLWH. The religiosity of the nurses also differed significantly by hospital affiliation, religious identification, monthly income, and educational background. The
nurses’ level of religiosity was positively correlated with both level of HIV knowledge and stigmatizing attitudes toward PLWH.

The average Indonesian nurses’ religiosity score was 56.2 on a measure with a possible maximum score is 80. In previous study that used similar instrument in the US, the mean of religiosity score was 43.2 for a predominant Christian sample (King et al., 2006). Therefore, nurses in this study appear to have higher levels of religiosity than found in the previous study in the US. One of the reasons religiosity may be higher in Indonesian nurses is that Indonesia has a strong mosque community and religious leaders who influence people’s lives (Bakar & Bamualim, 2006). This religious climate may also affect non-Muslims. The active public religious life of the Indonesian people may influence the level of religiosity of the nurses in the study. As a majority religion, Islam has strong value that prohibits behavior like MSM, IDU, and prostitution. Therefore, these value spread out through all the people, including nurses where they stigmatize and discriminate PLWH who are and are not MSM, IDU, and prostitution.

These findings are congruent with previous studies in the US and Puerto Rico which have found that more religious persons who identified religion as important in their life, had more stigmatizing attitudes toward PLWH especially PLWH who were infected through drug use, same-sex sexual activity or commercial sex (Kopacz, 1999; VanderStoep & Green, 1988; Varaz-Diaz, Neilands, Malave-Rivera, Betancourt, 2010).

In summary, religiosity related to stigmatizing attitudes toward PLWH, and this finding is supported by previous research. Religiosity differed significantly by religion and hospital religious affiliation, but the differences were small and probably not
These findings suggest that a person’s degree of religiosity affects stigmatizing attitudes independently from type of religion or hospital religious affiliation.

**Religion.** Based on the regression analysis, religion (Muslim) was a significant predictor of stigmatizing attitudes toward PLWH. In bivariate analyses religious identification related significantly to HIV knowledge, religiosity, perceived workplace stigma, and stigmatizing attitudes toward PLWH. In other bivariate analyses, Catholic nurses and nurses who worked in the Catholic hospital had significantly lower stigmatizing attitudes toward PLWH. However, no previous study supports this finding.

**Hospital Religious Affiliation.** According to the regression analysis, working at the Islamic and Catholic hospitals were significance predictors of stigmatizing attitudes toward PLWH. Also, bivariate analysis of variance showed that nurses affiliated with the Catholic hospital had lower stigmatizing attitudes toward PLWH. No previous studies have examined the differences in stigmatizing attitudes toward PLWH for nurses working in hospitals. However, previous studies have found that hospital policy influences staff’s stigmatizing attitudes toward PLWH (Wolfe, WR., Weiser, SD., Leiter, K., Steward, WT. et al., 2008; Li, L., Zunyou, W., et al., 2007).

As it mentioned in chapter three, the investigator observed that each of religiously affiliated hospitals had certain religious activities held regularly within the hospital. In addition to these religious activities the hospitals differed in their AIDS care policies. One policy in the Catholic hospital was very supportive of HIV and AIDS care within the hospital. There was donation money that could be accessed when nurses or other health professionals found that PLWH had financial difficulties related to care such as in having
testing, therapy, and transportation. Previous studies described that hospital policy on HIV and AIDS should be written and spread to all of the workers within the hospital. Hospital policy can play a significant role in decreasing health workers’ stigmatizing attitudes toward PLWH. However, with a sample of only four hospitals, it is difficult to determine whether it is the religions affiliation itself or other differences between the hospitals, such as different hospital policies regarding AIDS care that contributed to nurses’ stigmatizing attitudes toward PLWH.

C. Strengths and limitations of this study

Strengths. This is the first study to assess nurses’ stigmatizing attitudes toward PLWH in Indonesia. This study has a large sample of nurses recruited from four different hospitals. All the measures in this study had high internal reliability, translated with established content validity and understandability. This is one of few studies that examined simultaneously religion, religiosity, and hospital religious affiliation and their influence on nurses’ stigmatizing attitudes toward PLWH.

Limitations. This study also has some limitations that may affect the interpretation and generalization of the findings. Firstly the associations shown in the analyses cannot be interpreted as causal relationships. Second, participants were recruited in only four hospitals in Jakarta, and using a convenience sample. Jakarta attracts many of the best nurse graduates in the country, who work in urban hospitals. Therefore, the sample is not representative of all Indonesian nurses, because the majority of the nurses in this study graduated from diploma nursing program. Even investigator did random sample, most of respondent might show that the majority of nurses graduated from diploma. Also, the
sample was selected to include a higher number of non-Muslim nurses than would be true for the total nursing population in Indonesia. In this study the percentage of Muslim nurses are 53%, where in Indonesia the proportion of Muslim population is around 88%.

Thirdly, the four hospitals reflect variation in a number of related factors in addition to religious affiliation. Therefore, the differences by hospital may not be caused solely by religious affiliation, but may be due to other differences including the hospital policy regarding PLWH. The study did not systematically obtain information on each hospital regarding hospital AIDS care policies, the content or duration of nursing continuing education offerings, year they started to care for PLWH in every ward, the average number of PLWH they care for as in-patient service or out-patient, availability of support for PLWH, or other organizational factors. Finally, the stigmatizing attitudes do not necessarily tell us the level of caring of the nurse toward PLWH, the patient perception of nursing care they had received, or whether nurses actually acted in a discriminatory manner.

D. Conclusion

This is the first study to examine the relationship between three measures of religion and perceived workplace stigma and nurses’ stigmatizing attitudes toward PLWH. Individual religion, religiosity, and hospital religious affiliation all had significant positive associations with stigmatizing attitudes toward PLWH. Other factors, including lower educational background and higher perceived competence are also major factors associated with stigmatizing attitudes. However, the nurses in this study seems rate themselves as competent to care for PLWH without specific training or a clear
understanding of the psychosocial and physical needs of PLWH. Therefore, investigator could say that lower educational background, higher religiosity, and perceived higher workplace stigma related to stigmatizing attitudes toward PLWH.

However, Varaz-Diaz (2010) observed that actually religion has two aspects, including values that promote stigmatizing attitudes, and values that support compassionate service provision. Echenberg (2006) described in their study in Senegal that Islam has a tradition of fighting stigmatization and leaving moral judgment to God. However, the Islamic tradition of fighting stigmatization may be different for other Islam followers in other countries with different religious traditions. Therefore,

E. Implications

*Future Research.* Since the measures in this study were culturally appropriate and readily understood by the target population of Indonesian nurses, these measures can be used with a more representative sample of Indonesian nurses and perhaps other health workers and with the general population. More studies conducted with Indonesian nurses and the general population will improve our understanding of factors associated with stigmatizing attitudes toward PLWH in Indonesia. As intervention are developed and implemented to reduce stigmatizing attitudes, these reliable measures can provide benchmarks to measure improvement. These studies also will contribute to the development of a global concept of stigmatizing attitudes toward PLWH.

*Nursing Education.* This study also suggests that nurses received from their training are needed to prepare nurses before caring for PLWH. The existing HIV training that hospitals or colleges of nursing offer are not sufficient in terms of reducing
stigmatizing attitudes among health professionals toward PLWH. Every nurse in every ward and every nursing student should have sufficient training in HIV and AIDS care. The nursing education curriculum should include training regarding HIV and AIDS care, especially with the increasing number of PLWH that are hospitalized in the clinical settings. Furthermore, nursing students should have clinical experience with PLWHs and be given time to explore their own responses and experiences during clinical placement.

The HIV and AIDS care training should include culturally appropriate discussion of HIV and stigmatizing attitudes as well as discussion of the religious value of compassion and religious attitudes that are appropriate for each religion affiliation. Emphasizing active learning strategies such as role playing have been found to be effective in changing attitudes and behavior. This might help to reduce fear and stigmatizing attitudes toward PLWH.

*Hospital and Ministry of Health Policy.* This study also suggests that hospitals should have supporting policy for HIV and AIDS care. The policy should clearly describe the type of prevention, care, the standards for non-discriminating care, and support toward PLWH that are provided by the hospital. The policy should be clearly communicated to all workers, monitored and enforced. The policy also needs to address how to solve financial problems of PLWH. Learning from the Catholic hospital policy, all hospitals should try to develop a system where they can refer financial difficulties that are faced by PLWH. The referral can be within the hospital (e.g. donation from health professionals and patients) or out of the hospital (e.g. health insurance from the government). In general, the policy should also address human resources management in recruiting nurses with non-stigmatizing attitudes, scheduling effective HIV-related
continuing education for nurses and other health professionals, and monitoring the quality of HIV and AIDS care on the wards.

This supporting policy should be applied in every hospital in every part in Indonesia. A monitoring system should be in place in ensuring HIV and AIDS care is provided sufficiently in a non-discriminating manner. The monitoring should be done in every hospital as well, since the finding from this study showed that being large hospitals in big city did not guarantee that they will have nurses who have sufficient knowledge on HIV.


BPS (2009). *Young Adult Reproductive Health Survey*. BPS, DepKes.


Medical students' attitudes toward AIDS and homosexual patients. *Journal of medical education* 62(7), 549-556.


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Email: agungwss@yahoo.com; awaluy2@uic.edu

EDUCATION


AWARDS
Young Asian Professional Award, Asian Chronicle USA TV program, Illinois, November 21, 2010.

DCFAR Travel Award, Chicago Development Center for AIDS Research, Paper Presentation, June 21, 2010.

Virginia M. Ohlson Award, Global Health Leadership Office, College of Nursing University of Illinois at Chicago, April 8, 2009.

Doctoral Traineeship, AIDS International Training and Research Program at the University of Illinois at Chicago, 2007- present.

**WORK EXPERIENCE**

Medical Surgical Nursing, Faculty of Nursing, University of Indonesia, July 1994 – present.

Clinical Nurse Instructor in HIV/AIDS Ward, Dr. Cipto Mangunkusumo Hospital, Jakarta, July 1995 – present.

Researcher, Research & Development Unit, Faculty of Nursing, University of Indonesia, July 2000 – present.


**RESEARCH AREA**

HIV-related stigma, Complementary therapy, & Palliative Care.

**PUBLICATIONS**


**TRAINING AND WORKSHOPS**


**Integrated Approach for HIV/AIDS Prevention among IDUs**, Jakarta, August 2003. Sponsored by the University of Indonesia and the University of Illinois at Chicago - Fogarty AIDS International Training Program, 5-day training for NGO staff, Government Officers and University faculty.

**Community Based Approach in Health Education Workshop**, Christian Medical College, Vellore, India, 1997 Sponsored by WHO-SEARO, 5-days workshop.

**Applied Health Ethics Workshop**, University of Peradeniya, Srilanka, 1997 Sponsored by WHO-SEARO, 5-days workshop.

**General Principle of Health Professional Education Workshop**, All India Institute of Medical Sciences, New Delhi, 1997 Sponsored by WHO-SEARO, 5-days workshop.

**Palliative care for Cancer Support Training**, Jakarta, 1996 sponsored by International Union Against Cancer.

**PRESENTATIONS**


**PROFESSIONAL ORGANIZATION EXPERIENCE**

Member of Sigma Theta Tau International, Honor Society of Nursing at 033 Alpha Lambda Chapter, University of Illinois at Chicago, College of Nursing. 2007 – Present.

Head of Indonesian Nurse Association Faculty of Nursing chapter/commissariat Jakarta 2001 – 2005.

Member of University of Indonesia Alumni Association 1994 – Present.

Member of Indonesian Adult Nurse Association 2000 – Present.
Table 4.1
Factor Analysis & Internal Consistency of Measures Prior Studies and the Current Study

<table>
<thead>
<tr>
<th>Variables (Factors)</th>
<th># of items</th>
<th>Internal Consistency (α)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prior Studies</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Religiosity</td>
<td>20</td>
<td>.940</td>
</tr>
<tr>
<td>Nurse’s Attitudes toward AIDS</td>
<td>41</td>
<td></td>
</tr>
<tr>
<td>Homosexuality</td>
<td>12</td>
<td>.950</td>
</tr>
<tr>
<td>IDUs</td>
<td>9</td>
<td>.750</td>
</tr>
<tr>
<td>HIV Care</td>
<td>8</td>
<td>.800</td>
</tr>
<tr>
<td>Social-professional</td>
<td>12</td>
<td>.820</td>
</tr>
<tr>
<td>Perceived Workplace Stigma</td>
<td>10</td>
<td>.910</td>
</tr>
<tr>
<td>Current Study</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Religiosity</td>
<td>16</td>
<td>0.836</td>
</tr>
<tr>
<td>Stigmatizing attitudes toward PLWH</td>
<td>24</td>
<td>0.832</td>
</tr>
<tr>
<td>Attitudes to AIDS</td>
<td>16</td>
<td>0.849</td>
</tr>
<tr>
<td>HIV and AIDS Care</td>
<td>8</td>
<td>0.754</td>
</tr>
<tr>
<td>Perceived Workplace Stigma</td>
<td>10</td>
<td>0.821</td>
</tr>
</tbody>
</table>
Table 4.2  
*Individual Characteristics of Indonesian Nurses in the Islamic, Protestant, Catholic, and General Hospital*

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Total (n=396)</th>
<th>Islamic Hospital (n=100)</th>
<th>Protestant Hospital (n=100)</th>
<th>Catholic Hospital (n=96)</th>
<th>General Hospital (n=100)</th>
<th>$\chi^2$ / $F$ test</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age: Mean (SD)</td>
<td>35.45 (9.460)</td>
<td>34.66 (8.52)</td>
<td>32.14 (10.39)</td>
<td>40.95 (7.49)</td>
<td>34.26 (8.97)</td>
<td>$\chi^2=53.71^{***}$</td>
</tr>
<tr>
<td>35 years old or younger</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>$\chi^2=7.53^{**}$</td>
</tr>
<tr>
<td>&gt; 35 years old (%)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gender:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>$\chi^2=16.26^{***}$</td>
</tr>
<tr>
<td>Male (%)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Female</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Religion:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>$\chi^2=443.51^{***}$</td>
</tr>
<tr>
<td>Islam (%)</td>
<td>53.5</td>
<td>100</td>
<td>5</td>
<td>19</td>
<td>88</td>
<td></td>
</tr>
<tr>
<td>Protestant</td>
<td>29.5</td>
<td>0</td>
<td>87</td>
<td>18</td>
<td>12</td>
<td></td>
</tr>
<tr>
<td>Catholic</td>
<td>17</td>
<td>0</td>
<td>8</td>
<td>59</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>Monthly Income: Mean (SD)</td>
<td>$406 ($307)</td>
<td>494.5 (238.9)</td>
<td>272 (196.5)</td>
<td>448.1 (304.9)</td>
<td>434.8 (436.9)</td>
<td>$F=10.50^{***}$</td>
</tr>
<tr>
<td>(In US $)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>US$100-406 (%)</td>
<td>56.3</td>
<td>30</td>
<td>81</td>
<td>52</td>
<td>62</td>
<td>$\chi^2=5.99^{**}$</td>
</tr>
<tr>
<td>&gt;US$406</td>
<td>43.8</td>
<td>70</td>
<td>19</td>
<td>48</td>
<td>38</td>
<td></td>
</tr>
<tr>
<td>Working Experience: Mean (SD)</td>
<td>13.41 (9.256)</td>
<td>12.81 (8.50)</td>
<td>9.73 (9.81)</td>
<td>18.15 (7.77)</td>
<td>13.43 (9.26)</td>
<td>F=15.96***</td>
</tr>
<tr>
<td>------------------------------</td>
<td>---------------</td>
<td>--------------</td>
<td>-------------</td>
<td>--------------</td>
<td>--------------</td>
<td>-------------</td>
</tr>
<tr>
<td>13 years or less (%)</td>
<td>55.1</td>
<td>62</td>
<td>69</td>
<td>31</td>
<td>57</td>
<td>χ²=8.79**</td>
</tr>
<tr>
<td>&gt;13 years</td>
<td>44.9</td>
<td>38</td>
<td>31</td>
<td>69</td>
<td>43</td>
<td></td>
</tr>
</tbody>
</table>

**Education:**

| Diploma or lower (%)         | 82.0          | 77           | 93          | 70           | 88           | χ²=1.65  |
| BSN                          | 18.0          | 23           | 7           | 30           | 12           |             |

**Training on HIV care**

| Never (%)                    | 65.2          | 59           | 74          | 47           | 80           | χ²=0.085  |
| Ever, once or more           | 34.8          | 41           | 26          | 53           | 20           |             |

**Perceived competence:**

| Yes (%)                      | 63.2          | 68           | 52          | 88           | 46           | χ²=0.002  |
| No or doubt                  | 36.8          | 32           | 48          | 12           | 54           |             |

*** p < .001    **p < .01
Table 4.3
Nurses’ HIV Knowledge, Religiosity, Perceived Workplace Stigma, & Stigmatizing Attitudes toward PLWH

<table>
<thead>
<tr>
<th>Variable</th>
<th>Mean (SD)</th>
<th>Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>HIV Knowledge</td>
<td>12.53</td>
<td>(2.35)</td>
</tr>
<tr>
<td>Religiosity</td>
<td>56.24</td>
<td>(5.47)</td>
</tr>
<tr>
<td>Perceived Workplace Stigma</td>
<td>2.45</td>
<td>(3.49)</td>
</tr>
<tr>
<td>Stigmatizing Attitudes toward PLWH</td>
<td>78.67</td>
<td>(11.85)</td>
</tr>
</tbody>
</table>
Table 4.4
Nurses’ HIV Knowledge, Religiosity, Perceived Workplace Stigma, & Stigmatizing Attitudes toward PLWH by Ages

<table>
<thead>
<tr>
<th>Variable</th>
<th>Total</th>
<th></th>
<th></th>
<th></th>
<th></th>
<th>F test</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>M</td>
<td>SD</td>
<td>M</td>
<td>SD</td>
<td>M</td>
<td>SD</td>
</tr>
<tr>
<td>HIV Knowledge</td>
<td>12.53</td>
<td>2.35</td>
<td>11.98</td>
<td>2.25</td>
<td>13.18</td>
<td>2.31</td>
</tr>
<tr>
<td>Religiosity</td>
<td>56.24</td>
<td>5.47</td>
<td>55.98</td>
<td>5.46</td>
<td>56.56</td>
<td>5.48</td>
</tr>
<tr>
<td>Perceived Workplace Stigma</td>
<td>2.45</td>
<td>3.49</td>
<td>2.84</td>
<td>3.65</td>
<td>1.97</td>
<td>3.24</td>
</tr>
<tr>
<td>Stigmatizing Attitudes toward PLWH</td>
<td>78.67</td>
<td>11.85</td>
<td>80.73</td>
<td>11.64</td>
<td>76.16</td>
<td>11.65</td>
</tr>
</tbody>
</table>

*** p < .001    * p < .05
<table>
<thead>
<tr>
<th>Variable</th>
<th>Total</th>
<th>Female Nurses</th>
<th>Male Nurses</th>
<th>F test</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>M</td>
<td>SD</td>
<td>M</td>
<td>SD</td>
</tr>
<tr>
<td>HIV Knowledge</td>
<td>12.53</td>
<td>2.35</td>
<td>12.54</td>
<td>2.39</td>
</tr>
<tr>
<td>Religiosity</td>
<td>56.24</td>
<td>5.47</td>
<td>56.35</td>
<td>5.49</td>
</tr>
<tr>
<td>Perceived Workplace Stigma</td>
<td>2.45</td>
<td>3.49</td>
<td>2.36</td>
<td>3.25</td>
</tr>
<tr>
<td>Stigmatizing Attitudes toward PLWH</td>
<td>78.67</td>
<td>11.85</td>
<td>78.55</td>
<td>11.93</td>
</tr>
</tbody>
</table>
Table 4.6
Nurses' HIV Knowledge, Religiosity, Perceived Workplace Stigma, & Stigmatizing Attitudes toward PLWH by Religion Identifications

<table>
<thead>
<tr>
<th>Variable</th>
<th>Total</th>
<th>Muslim Nurses</th>
<th>Protestant Nurses</th>
<th>Catholic Nurses</th>
<th>F test</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>M</td>
<td>SD</td>
<td>M</td>
<td>SD</td>
<td>M</td>
</tr>
<tr>
<td>HIV Knowledge a</td>
<td>12.53</td>
<td>2.35</td>
<td>12.35</td>
<td>2.35</td>
<td>12.39</td>
</tr>
<tr>
<td>Religiosity b</td>
<td>56.24</td>
<td>5.47</td>
<td>56.96</td>
<td>5.76</td>
<td>55.53</td>
</tr>
<tr>
<td>Perceived Workplace Stigma c</td>
<td>2.45</td>
<td>3.49</td>
<td>3.12</td>
<td>4.13</td>
<td>1.70</td>
</tr>
<tr>
<td>Stigmatizing Attitudes toward PLWH d</td>
<td>78.67</td>
<td>11.85</td>
<td>83.67</td>
<td>10.52</td>
<td>74.08</td>
</tr>
</tbody>
</table>

*** p < .001. ** p < .01 * p < .05

a Tukey post-hoc comparisons of the three religion groups indicate that the Catholic nurses (M = 13.31, 95% CI [12.71, 13.92]) have significantly higher HIV knowledge than the Islam nurses (M = 12.34, 95% CI [12.03, 12.66]), p = .01, and Protestant nurses (M = 12.39, 95% CI [11.98, 12.81]), p = .05.
b Tukey post-hoc comparisons of the three religion groups indicate that the Islamic nurses (M = 56.96, 95% CI [56.18, 57.74]) have significantly higher religiosity than the Catholic nurses (M = 55.22, 95% CI [53.86, 56.59]), p = .05, and Protestant nurses (M = 55.53, 95% CI [54.67, 56.38]), p = .05.
c Kruskal-Wallis (non-parametric) test: Islamic nurses perception of workplace stigma significantly higher from Catholic & Protestant nurses.
d Tukey post-hoc comparisons of the three religion groups indicate that the Islamic nurses (M = 83.67, 95% CI [82.25, 85.09]) have significantly higher stigmatizing attitudes than the Catholic nurses (M = 70.84, 95% CI [68.06, 73.61]), p = .001, and Protestant nurses (M = 74.08, 95% CI [72.25, 75.92]), p = .001.
### Table 4.7

*Nurses’ HIV Knowledge, Religiosity, Perceived Workplace Stigma, & Stigmatizing Attitudes toward PLWH by Monthly Incomes*

<table>
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<th>Total SD</th>
<th>US$406 or less M</th>
<th>US$406 or less SD</th>
<th>&gt; US$406 M</th>
<th>&gt; US$406 SD</th>
<th>F test</th>
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*** p < .001
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<td>80.39</td>
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*** p < .001. ** p < .01
Table 4.9
Nurses’ HIV Knowledge, Religiosity, Perceived Workplace Stigma, & Stigmatizing Attitudes toward PLWH by Educational Background

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<td>80.01</td>
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*** p < .001    * p < .05
Table 4.10
Nurses’ HIV Knowledge, Religiosity, Perceived Workplace Stigma, & Stigmatizing Attitudes toward PLWH by HIV Training

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<td>SD</td>
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** p< .01
Table 4.11  
*Nurses’ HIV Knowledge, Religiosity, Perceived Workplace Stigma, & Stigmatizing Attitudes toward PLWH by Self as Competence*

<table>
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<th>F test</th>
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<td>SD</td>
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<td>12.93</td>
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<td>11.61</td>
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</table>

*** p < .001, ** p < .01, * p < .05
Table 4.12  
Nurses’ HIV Knowledge, Religiosity, Perceived Workplace Stigma, & Stigmatizing Attitudes toward PLWH by Hospital Affiliation

<table>
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<tr>
<th>Variable</th>
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<th>Protestant Hospital</th>
<th>Catholic Hospital</th>
<th>General Hospital</th>
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<td>M</td>
<td>SD</td>
<td>M</td>
<td>SD</td>
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<td>57.79</td>
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<td>55.70</td>
<td>4.35</td>
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<td>Perceived Workplace Stigma c</td>
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<td>3.07</td>
<td>4.97</td>
<td>1.69</td>
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<td>85.15</td>
<td>10.27</td>
<td>75.17</td>
<td>10.38</td>
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*** p < .001, ** p< .01

a Tukey post-hoc comparisons of the four hospitals’ nurses indicate that the Catholic hospital nurses (M = 13.61, 95% CI [13.18, 14.05]) have significantly higher HIV knowledge than the Islamic hospital nurses (M = 12.21, 95% CI [11.76, 12.66]), p = .001, Protestant hospital nurses (M = 12.02, 95% CI [11.59, 12.45]), p = .001, and General hospital nurses (M = 12.30, 95% CI [11.81, 12.79]), p = .001.

b Kruskal-Wallis (non-parametric) test: Islamic hospital nurses religiosity significantly higher from Catholic, Protestant & general hospital nurses’

c Kruskal-Wallis (non-parametric) test: Islamic hospital nurses perception of workplace stigma significantly higher from Catholic, Protestant & general hospital nurses’

d Tukey post-hoc comparisons the four hospitals’ nurses indicate that the Islamic hospital nurses (M = 85.15, 95% CI [83.11, 87.18]) have significantly higher stigmatizing attitudes than the Catholic nurses (M = 71.11, 95% CI [68.88, 73.35]), p = .001, and Protestant nurses (M = 75.17, 95% CI [73.11, 77.23]), p = .001.
Table 4.13
Differences in Nurses’ HIV Knowledge, Religiosity, Perceived Workplace Stigma, & Stigmatizing Attitudes toward PLWH by Individual Characteristics $^a$

<table>
<thead>
<tr>
<th>Variable</th>
<th>Hospitals</th>
<th>Religions</th>
<th>Nurses’ Age</th>
<th>Gender</th>
<th>Monthly Salary</th>
<th>Work experience</th>
<th>Education Background</th>
<th>Perceived Competence</th>
<th>HIV Training</th>
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</thead>
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<td>NS</td>
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<td>$\checkmark$</td>
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<td>N.S.</td>
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<td>NS</td>
<td>$\checkmark$</td>
<td>$\checkmark$</td>
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$a$ $\checkmark$ : significant at $p<.05$ difference

N.S.: no significant
Table 4.14
_The Correlations among HIV Knowledge, Religiosity, Perceived Workplace Stigma, & Stigmatizing Attitudes toward PLWH_

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<td>.148**</td>
<td>.271**</td>
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*Note.** Significant at the 0.01 level (2-tailed).*
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</table>

\[
F(d.f., p value) = F_{(5, 330)} = 4.716, p < 0.001 \quad F_{(8, 327)} = 7.573, p < 0.001 \quad F_{(9, 326)} = 7.123, p < 0.001 \quad F_{(12, 323)} = 13.090, p < 0.001 \quad F_{(15, 320)} = 11.734, p < 0.001
\]
Figure 1. Percentage of HIV Prevalence in Indonesia among HIV risk Groups in 2007
Figure 2. Conceptual framework: factors associated to individual stigma attitude toward PLWH.
Figure 3. Location of the study site in, DKI Jakarta province, Indonesia
Survey on

INDONESIAN NURSES’ HIV KNOWLEDGE, RELIGIOUS BELIEFS,
ATTITUDES TOWARD HIV/AIDS,
AND PERCEPTION OF HIV-STIGMA

English Version

(Agung Waluyo – Investigator, College of Nursing,
University of Illinois at Chicago, USA)
Demographic Characteristics

Fill out the blank based on your identity

1. Age: .................... years old

2. Working experience as a nurse: ............. years .......... months

3. Total monthly income:

   Rp........................................ (without spouse’s income)
   Rp........................................... (with spouse’s income)

Give mark (X) on each statement that best describe about yourself

4. Gender
   1. Man [1]
   2. Woman [2]

5. Continuing Education or course on HIV/AIDS Care:
   1) Never □
   2) Once □ Year:...........
   3) Twice or more □ Year:...........

6. Educational background:
   1) Nurse assistance/high school [1]
   2) Diploma nursing (Reguler) [2]
   3) Diploma nursing (Bridging program) [3]
   4) BSN (Reguler) [4]
   5) BSN (Bridging program) [5]
   6) Master in Nursing [6]

7. In general, I perceive myself that I can give nursing care toward PLWH:
   1) Yes [1]
   2) No [2]
   3) Doubt [3]

8. Religious identification:
   1) Islam [1]
   2) Protestant [2]
   3) Catholic [3]
   4) Hindu [4]
   5) Buddha [5]
   6) Others [6]
### HIV Knowledge (KQ-18)*

<table>
<thead>
<tr>
<th>No.</th>
<th>Please mark true or false based on each statement below</th>
<th>True</th>
<th>False</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Coughing and sneezing DO NOT spread HIV</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>2</td>
<td>A person can get HIV by sharing a glass of water with someone who has HIV.</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>3</td>
<td>Pulling out the penis before climaxes/ejaculations keeps a woman from getting HIV during sex.</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>4</td>
<td>A woman can get HIV if she has anal sex with a man.</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>5</td>
<td>Showering, or washing one’s genitals/private parts, after sex keeps a person from getting HIV.</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>6</td>
<td>All pregnant women infected with HIV will have babies born with AIDS.</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>7</td>
<td>People who have been infected with HIV quickly show serious signs of being infected.</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>8</td>
<td>There is a vaccine that can stop adults from getting HIV.</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>9</td>
<td>People are likely to get HIV by deep kissing, putting their tongue in their partner’s mouth, if their partner has HIV.</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>10</td>
<td>A woman cannot get HIV if she has sex during her period.</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>11</td>
<td>There is a female condom that can help decrease a woman’s chance of getting HIV.</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>12</td>
<td>A natural skin condom works better against HIV than does a latex condom.</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>13</td>
<td>A person will not get HIV if she or he is taking antibiotics.</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>14</td>
<td>Having sex with more than one partner can increase a person’s chance of being infected with HIV.</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>15</td>
<td>Taking a test for HIV one a week after having sex will tell a person if she or he has HIV.</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>16</td>
<td>A person can get HIV by sitting in a hot tub or a swimming pool with a person who has HIV.</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>17</td>
<td>A person can get HIV from oral sex.</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>18</td>
<td>Using Vaseline or baby oil with condoms lowers the chance of getting HIV.</td>
<td>☐</td>
<td>☐</td>
</tr>
</tbody>
</table>

*) This instrument is used with the permission from & was designed by Carey & Schroder (2002).
The Beliefs and Values Scale *

Scale: 1=Strongly Agree, 2=Agree, 3=Neither Agree nor Disagree, 4=Disagree, 5=Strongly Disagree

<table>
<thead>
<tr>
<th>No.</th>
<th>This questionnaire concerns your beliefs and views about life. Please mark the response that best describes your view for each of the statements.</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>I am a spiritual person</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>I believe I have a spirit or soul that can survive my death</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>I believe in personal God</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>I believe meditation has value</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>I believe God is an all pervading presence</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>I believe what happens after I die is determined by how I have lived my life</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>I believe there are forces for evil in the Universe</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>Although I cannot always understand, I believe everything happens for a reason</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>I believe human physical contact can be a spiritual experience</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>I feel most at one with the world when surrounded by nature</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>11</td>
<td>I believe in life after death</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>12</td>
<td>I am religious person</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>13</td>
<td>Religious ceremonies are important to me</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>14</td>
<td>I believe life is planned out for me</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>15</td>
<td>I believe God is a life force</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>16</td>
<td>At least once in my life, I have had an intense spiritual experience</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>17</td>
<td>I believe that there is a heaven</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>18</td>
<td>I believe the human spirit is immortal</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>19</td>
<td>I believe prayer has value</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>20</td>
<td>I believe there is a God</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*) This instrument is used with the permission from & was designed by King, Speck & Thomas (2001)
**Nurse Attitude AIDS Scale (NAAS)**

Scale: 1=Strongly Agree, 2=Agree, 3=Neither Agree nor Disagree, 4=Disagree, 5=Strongly Disagree

<table>
<thead>
<tr>
<th>No.</th>
<th>The following are some statements regarding opinions about HIV/AIDS and PLWH. There may be no “right” or “wrong” response. Place the number from the scale that best represents your reaction in the space provided.</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td><strong>Homosexual</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>Homosexual men should be given social equality</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Male homosexuality is obscene and vulgar</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>The homosexual civil rights movement is positive for society</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>The love between two males is the same as heterosexual love</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Homosexual men are a viable part of our society</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>I would be comfortable knowing that my clergy was a homosexual man</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>I feel disgusted when I consider the state of sinfulness of male homosexuality</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>I feel comfortable when I think that male homosexuality is a natural human occurrence</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>I feel confident that homosexual men are just as emotionally healthy as heterosexual men</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>I would feel comfortable if I learned that my son’s teacher was homosexual man.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>11</td>
<td>Male homosexuality should be considered immoral.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>12</td>
<td>I feel revolted when I think of two men engaged in private sexual behaviors with each other</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>IV Drug Abusers</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>13</td>
<td>The government should provide free syringes to IV drug abusers.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>14</td>
<td>IV drug abusers are victims of society.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>15</td>
<td>I feel disgusted when I consider the immorality of IV drug abuse</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>16</td>
<td>IV drug abusers ought to be locked up.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>17</td>
<td>People who contract HIV through IV drug abuse should not be entitled to free medical care</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>18</td>
<td>People who shoot drugs cannot help themselves.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>19</td>
<td>I feel upset around IV drug abusers</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>20</td>
<td>IV drug abusers are mistreated in our society</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>21</td>
<td>I would feel comfortable giving nursing care to an IV drug abuser.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Women</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>22</td>
<td>Women with HIV ought to have equal access to health care services.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>23</td>
<td>I feel disgusted when I think of an HIV infected woman.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>24</td>
<td>A woman with HIV deserves what she gets.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>25</td>
<td>I would feel comfortable giving nursing care to an HIV positive woman.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Continued……… (next page).
**Nurse Attitude AIDS Scale (NAAS)**

Scale: 1=Strongly Agree, 2=Agree, 3=Neither Agree nor Disagree, 4=Disagree, 5=Strongly Disagree

<table>
<thead>
<tr>
<th>No.</th>
<th>The following are some statements regarding opinions about HIV/AIDS and PLWH. There may be no “right” or “wrong” response. Place the number from the scale that best represents your reaction in the space provided.</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>26</td>
<td>I feel worried about the possibility of acquiring AIDS from patients</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>27</td>
<td>I am bothered that I might not be able to prevent myself from contracting AIDS</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>28</td>
<td>It is comforting to know that there isn’t much difference in caring for AIDS patients than caring for other terminally ill persons</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>29</td>
<td>I have enough information to protect myself against AIDS in my work place</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>30</td>
<td>I worry about possible casual contact with a person with AIDS</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>31</td>
<td>I am fearful of caring for persons with AIDS because there is no cure</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>32</td>
<td>Nurses need to know the HIV antibody status of patients they are caring for.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>33</td>
<td>I am not bothered about possibility caring for an infant who was born HIV positive.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>34</td>
<td>Nurses who are HIV positive should be prevented from participating in direct patient care</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>35</td>
<td>Person with AIDS are not dangerous to other people with whom they come in casual contact</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>36</td>
<td>I think the homosexual community has brought the problem of AIDS upon itself.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>37</td>
<td>I feel angry about possibility caring for a person with AIDS who contracted the disease through high risk sexual behavior.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>38</td>
<td>There is too much money spent on AIDS research.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>39</td>
<td>Person with AIDS should be quarantined</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>40</td>
<td>Pregnant nurses should be excused from caring for person with AIDS.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>41</td>
<td>Civil right laws should be enacted to protect people with AIDS from job &amp; housing discrimination</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>42</td>
<td>Activities that spread AIDS such as some forms of sexual behaviors, should be outlawed</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>43</td>
<td>It distresses me to think that so many nursing procedures have to be changed or modified as a result of AIDS</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>44</td>
<td>Nurses should be allowed to refuse to care for a person with AIDS</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>45</td>
<td>Public school officials should not be required to accept an AIDS child into classes.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*) This instrument is used with the permission from & was designed by Preston et al., (1997).
HIV/AIDS Stigma Instrument-Nurse (HASIN) *

<table>
<thead>
<tr>
<th>No.</th>
<th>Please mark how often you observed the event during the past 3 months</th>
<th>Never</th>
<th>Once or twice</th>
<th>Several times</th>
<th>Most of the time</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>A nurse provided poorer quality care to an HIV/AIDS patient than to other patients</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
</tr>
<tr>
<td>2</td>
<td>A nurse shouted at or scolded an HIV/AIDS patient</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
</tr>
<tr>
<td>3</td>
<td>A nurse kept her distance when talking to an HIV/AIDS patient</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
</tr>
<tr>
<td>4</td>
<td>A nurse ignored the physical pain of an HIV/AIDS patient</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
</tr>
<tr>
<td>5</td>
<td>A nurse refused to feed an HIV/AIDS patient</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
</tr>
<tr>
<td>6</td>
<td>A nurse did not check the condition of her HIV/AIDS patient in the unit/ward</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
</tr>
<tr>
<td>7</td>
<td>A nurse made an HIV/AIDS patient wait until last for care</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
</tr>
<tr>
<td>8</td>
<td>A nurse made an HIV/AIDS patient do things for himself/herself to avoid touching him/her</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
</tr>
<tr>
<td>9</td>
<td>A nurse left an HIV/AIDS patient for a long time in a soiled bed</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
</tr>
<tr>
<td>10</td>
<td>Nurses made HIV/AIDS patients wait for care</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
</tr>
</tbody>
</table>

*) This instrument is used with the permission from & was designed by Uys, L. R., Holzemer, W. L., Chirwa, M. L., Dlamini, P. S., Greeff, M., Kohi, T. W., et al. (2009).
Appendix 2

Graduate College (MC 102)
601 S Morgan St
Chicago, IL 60607-7106

COMMITTEE RECOMMENDATION FORM

http://grad.uic.edu

Information should be typed online (except for signatures at bottom), and then printed

Name of Student: Agung Walyo
UN: 678642519

Student's Graduate Program: Doctor of Philosophy in Nursing Science
Program Code: 20F81499PHD


Anticipated date of exam or defense (mm/dd/yyyy): 11/15/2010

* Thesis, doctoral project or dissertation title (must not exceed 105 characters in length including spaces) - title text must be in mixed case:

Indonesian Nurses' HIV Knowledge, Religiosity, Individual Stigma Attitudes, and Workplace HIV-Stigma

REGULATORY ISSUES (Complete the questions in this box only for Master's or Doctoral Defense. Do not complete for Preliminary Examination.)

Does the student's research involve human subjects? Yes O No O
If yes, has the Institutional Review Board approved the proposal? Yes O No O

Approval #: 2009-129

Does the student's research involve animals in any way? Yes O No O
If yes, has the Animal Care Committee approved the proposal? Yes O No O

Does the student's research involve recombinant DNA? Yes O No O
If yes, has the Institutional Biosafety Committee approved the proposal? Yes O No O

Graduate College policy requires the minimum membership of committees as follows:

<table>
<thead>
<tr>
<th>Master's Thesis Defense</th>
<th>Total Number</th>
<th>Full Membership</th>
<th>Tenure Requirement</th>
<th>Outside Member**</th>
</tr>
</thead>
<tbody>
<tr>
<td>Field (OTD) / Preliminary exam (DNIP only)</td>
<td>Three***</td>
<td>Three***</td>
<td>One</td>
<td>Not required</td>
</tr>
<tr>
<td>Preliminary exam (all other doctoral programs)</td>
<td>Five***</td>
<td>Five***</td>
<td>Three</td>
<td>Two</td>
</tr>
<tr>
<td>Professional doctorate project defense (DNIP, OTD)</td>
<td>Three***</td>
<td>Three***</td>
<td>One</td>
<td>Not required</td>
</tr>
<tr>
<td>Dissertation defense</td>
<td>Five***</td>
<td>Five***</td>
<td>Two</td>
<td>Two</td>
</tr>
</tbody>
</table>

**Outside member is defined as outside of the program, although some programs may require outside of UIC.
***Chairperson must have full membership (not necessarily tenured)

We recommend that the following be approved as members of the committee for the student named above:

Name of Committee Member

Dr. Kathleen F. Norr

Chairperson (type name on line above)
Dr. Carol Smith

Dr. Chang G. Park
Dr. Judith A. Levy
Dr. Nathan Linsk

Name of outside member**
Curriculum vitae must be attached if outside of UIC
Name of program (UIC, but outside of program), or,
Name of institution, agency, etc. (outside of UIC)

Advice signature

Dr. Kathleen F. Norr
Print name

Sept 1, 2010

Date

Program head or director of graduate studies signature

Print name

Date

Approved O Not Approved O

Graduate College signature

Date
December 2, 2009

Chair person of Institutional Review Board Committee
University of Illinois at Chicago
Chicago, IL.
USA

Dear Chairperson of IRB committee,

I am Elly Nurachmah, a professor for Graduate Student in School of Nursing, University of Indonesia. I was graduated from Doctoral in Nursing Science in College of Nursing, Catholic University in Washington DC. I am a fluent speaker and writer of both English and Indonesia, the predominant language of Indonesia.

I have thoroughly examined enclosed research documents of Mr. Agung Wahyu in both Indonesian and English versions for his research entitled “Indonesian Nurses’ HIV Knowledge, Religious Beliefs, Attitudes toward HIV/AIDS, and Perception of HIV-Stigma”.

I would like to verify the translations of documents from English to Indonesian adequately convey the sense of the original, and are culturally sensitive to Indonesian nurses.

The documents as follows:
1. Survey questionnaires
2. Recruitment flyers
3. Subject consent forms
4. Script for initial contact

If you have any questions, please feel free to contact me at my office number: +62-21-788-49120, mobile number: +62-812-956-2216, or E-mail: ellymu08@yahoo.co.id

Sincerely yours,

[Signature]

Prof. Elly Nurachmah, DNSc, RN.
College of Nursing
University of Indonesia
Kampus Depok
Depok, Jawa Barat – 16424
Indonesia
Phone: +62 21 78849120
Fax: +62 21 7864124
ETHICAL CLEARENCE

The Ethical Committee of Nursing Research, Faculty of Nursing, University of Indonesia with regards of the protection of human rights and welfare in nursing research, has carefully reviewed the proposal entitled:

"Indonesian Nurses' HIV Knowledge, Religious Beliefs, Attitudes toward HIV/AIDS, and Perception of HIV-Stigma"

Name of the participant investigator: Agung Walyo, SKp, MSc
Name of institution: Faculty of Nursing Universitas Indonesia

And approved the above mentioned proposal.

Dean,

Dewi Irawati, PhD
NIP. 195206011974122001

Chairman,

Yeni Rustina, PhD
NIP. 195502071980032001

Jakarta, 3 December 2009
Appendix 5

University of Illinois
at Chicago

Office for the Protection of Research Subjects (OPRS)
Office of the Vice Chancellor for Research (MC 672)
203 Administrative Office Building
1737 West Palk Street
Chicago, Illinois 60612-7227

Approval Notice

Initial Review – Expedited Review

December 18, 2009

Agung Waluyo, MS
Health Systems Science
845 S Damen Avenue Room 1136
M/C 802
Chicago, IL 60612
Phone: (312) 996-9816 / Fax: (312) 996-8945

RE: Protocol # 2009-1129
“Indonesian Nurses' HIV Knowledge, Religious Beliefs, Attitudes toward HIV/AIDs, and Perception of HIV-Stigma”

Dear Agung Waluyo:

Members of Institutional Review Board (IRB) #2 reviewed and approved your research protocol under expedited review procedures [45 CFR 46.110(b)(1) and 21 CFR 56.110(b)(1)] on December 17, 2009. You may now begin your research.

Your research meets the requirement(s) for the following category - Expedited Review Approval Category 45 CFR 46.110(b)(1) and/or 21 CFR 56.110(b)(1):
Protocol reviewed under expedited review procedures [45 CFR 46.110 and/or 21 CFR 56.110]
Category: 7
(7) Research on individual or group characteristics or behavior (including but not limited to research on perception, cognition, motivation, identity, language, communication, cultural beliefs or practices and social behavior) or research employing survey, interview, oral history, focus group, program evaluation, human factors evaluation, or quality assurance methodologies.

Please note the following information about your approved research protocol:

**Protocol Approval Period:** December 17, 2009 - December 16, 2010
**Approved Subject Enrollment #:** 400
**Additional Determinations for Research Involving Minors:** These determinations have not been made for this study since it has not been approved for enrollment of minors.
**Performance Sites:** UIC, Universitas Indonesia
**Sponsor:** NIH Fogarty International Center Training Grant
**PAF#:** Not available
**Grant/Contract No:** D43 TW01419
**Grant/Contract Title:** UIC AIDS International Training and Research

Phone: 312-996-1711
http://www.uic.edu/depts/ovcr/opr/s/
FAX: 312-413-2929
Program

Research Protocol(s):
   a) Research Protocol: Nurses' knowledge & attitude toward PLWH; Version 1

Recruitment Material(s):
   a) Initial Contact Script (English); Version 1
   b) Initial Contact Script (Indonesian); Version 1
   c) Flyer (English); Version 1
   d) Flyer (Indonesian); Version 1

Informed Consent(s):
   a) Waiver of Signed Consent Document granted under 45 CFR 46.117
   b) Informed Consent (English); Version 1
   c) Informed Consent (Indonesian); Version 1

Please note the Review History of this submission:

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<th>Receipt Date</th>
<th>Submission Type</th>
<th>Review Process</th>
<th>Review Date</th>
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<td>Initial Review</td>
<td>Expedited</td>
<td>12/17/2009</td>
<td>Approved</td>
</tr>
</tbody>
</table>

Please remember to:

→ Use only the IRB-approved and stamped consent document(s) enclosed with this letter when enrolling new subjects.

→ Use your research protocol number (2009-1129) on any documents or correspondence with the IRB concerning your research protocol.

→ Review and comply with all requirements of the, "UIC Investigator Responsibilities, Protection of Human Research Subjects"

Please note that the UIC IRB has the right to ask further questions, seek additional information, or monitor the conduct of your research and the consent process.

Please be aware that if the scope of work in the grant/project changes, the protocol must be amended and approved by the UIC IRB before the initiation of the change.

We wish you the best as you conduct your research. If you have any questions or need further help, please contact the OPRS office at (312) 996-1711 or me at (312) 996-9299. Please send any correspondence about this protocol to OPRS at 203 AOB, M/C 672.

Sincerely,

[Signature]

Marissa Benni-Weis, M.S.
IRB Coordinator, IRB # 2
Office for the Protection of Research Subjects
Enclosure(s):

1. UIC Investigator Responsibilities, Protection of Human Research Subjects
2. Informed Consent Document(s):
   a) Informed Consent (English); Version 1
   b) Informed Consent (Indonesian); Version 1
3. Recruiting Material(s):
   a) Initial Contact Script (English); Version 1
   b) Initial Contact Script (Indonesian); Version 1
   c) Flyer (English); Version 1
   d) Flyer (Indonesian); Version 1
4. Optional Form 310 - Protection of Human Subjects, Assurance Identification/Certification/Declaration

cc:  Beverly J. McElmurry, Health Systems Science, M/C 802
     Arlene Miller, PhD, RN, Health Systems Science, M/C 802
     OVCRA Administration, M/C 672
HIV NURSING RESEARCH
VOLUNTEERS NEEDED

For a Survey

Conducted by

Mr. Agung Waluyo
PhD Candidate from University of Illinois at Chicago, USA
Phone: (21) 786 5105 or text messages: 812-1910-1276,
Email: awaluy2@uic.edu

Need volunteers who are:
1. Nurses who have experience caring for people living with HIV (PLWH) or
2. Nurses who have experience observing other nurses caring for PLWH

Eligible Participants will be asked to complete a questionnaire and compensated for their time with a free 2 days seminar

Nurses' Knowledge & attitude toward PLWH: Flyers
Version #1
PENELITIAN KEPERAWATAN HIV DIBUTUHKAN SUKARELAWAN

Untuk Survei

Oleh

Agung Waluyo
Kandidat PhD dari Universitas Illinois di Chicago, USA
Nomor telepon: (021) 786 5105 atau sms: 0812-1910-1276,
Email: awaluy2@uic.edu

Dibutuhkan sukarelawan dengan kriteria:
1. Perawat yang memiliki pengalaman merawat pasien ODHA, atau
2. Perawat yang pernah mengamati perawat lain merawat pasien ODHA

Sukarelawan yang memenuhi persyaratan akan diminta mengisi kuesioner dan mendapatkan kesempatan mengikuti Pelatihan GRATIS sebagai kompensasi keikutsertaannya dalam penelitian ini.
“Indonesian Nurses’ HIV Knowledge, Religious Beliefs, Attitude toward HIV/AIDS, and Perceived HIV-Stigma”

A Research Project of the University of Illinois at Chicago
Principal Investigator: Agung Wahuyo, MS

Script for Initial Contact and Screening to Establish Eligibility to Participate in the Study

You have read a flyer from me inviting you to participate in a research study about the association of nurses’ HIV Knowledge and their religious beliefs with nurses’ attitude toward HIV/AIDS and their perceived HIV-stigma. This research project is being conducted in partial fulfillment of the requirements of the PhD program at the University of Illinois at Chicago where the study’s principal investigator is enrolled. The purpose of the study is to determine the extent to which the nurses’ HIV knowledge and religious beliefs affect their attitudes toward HIV/AIDS and their perceived HIV-stigma.

If you choose to participate, you will complete the questionnaire one time only for approximately 30 – 45 minutes concerning your demographic background, HIV knowledge, religious beliefs, attitude toward HIV/AIDS and perceived HIV stigma. All information that you provide in the questionnaire will be kept strictly confidential and no one but the research staff will know what you have answered.

Participation in the study is entirely voluntary and you may decline to participate as well as withdraw from the research at any time without penalty of any kind. You will be offered for a two days seminar. The topic of the seminar will be based on the topic receiving as the highest preferences by the nurse participants. You are also entitled to have free lunch during the seminar days.

To participate in the study, you must meet several criteria. To assess your eligibility, I need ask you the following questions:

1. How old were you when at your last birthday?
2. Are you a nurse?
3. Do you have experience caring for people living with HIV?
4. Do you have experience observing other nurses caring for people living with HIV?

Note:

Nurses’ knowledge & attitude toward PLWH: Initial Contact Script
Page 1 of 2
Version #1
If the individual does not meet one or more of the 4 requirements, the investigator will explain that he/she is not eligible to be a study participant. Thank him/her for his/her time and end the contact.

If all 4 requirements are met, please continue with the next section:

What you have told me meets all the criteria for participation in the study. If you think that you might be interested in participating, let me tell you some more about what participation would entail and you can ask me any questions that you might have. Then if you are still interested in participating, I will continue to the next step, which is the explanation about informed consent to participate in the study.

Proyek Penelitian dari Universitas Illinois di Chicago
Peneliti: Agung Waluyo, MS

Kalimat yang Digunakan saat Kontak Awal dan Penyaringan Responden untuk terlibat dalam Penelitian

Anda telah membaca poster dari saya tentang undangan untuk dapat berpartisipasi dalam penelitian tentang hubungan antara pengetahuan perawat akan HIV dan kepercayaan religius mereka dengan perilaku perawat terhadap HIV/AIDS dan persepsi mereka pada stigma terhadap ODHA. Penelitian ini merupakan bagian dari program pendidikan S3 di Universitas Illinois di Chicago, tempat dimana peneliti sedang belajar. Penelitian ini bertujuan untuk mengetahui lebih jauh tentang pengetahuan perawat terhadap HIV/AIDS, kepercayaan religiusnya atau keyakinan imannya, perilaku dan persepsi perawat terhadap ODHA.

Jika anda memutuskan untuk berpartisipasi, anda akan diminta untuk mengisi kuesioner satu kali, dan membutuhkan waktu kurang lebih 30 – 45 menit, tentang latar belakang anda, pengetahuan HIV, kepercayaan religius, perilaku terhadap HIV/AIDS, dan persepsi tentang stigma terhadap ODHA. Semua informasi yang anda berikan akan saya jaga kerahasiaannya, tidak ada seorangpun kecuali saya (peneliti) apa yang anda jawab di dalam kuesioner ini.

Partisipasi anda di penelitian ini bersifat sukarela, dan anda bisa mengundurkan diri kapanpun anda mau. Anda akan ditaawarkan untuk menghadiri pelatihan secara gratis. Topik seminar akan ditentukan berdasarkan pilihan terbanyak dari perawat-perawat yang ikut dalam penelitian ini. Selain itu anda pun mendapatkan snack dan makan siang selama pelatihan.

Untuk dapat berpartisipasi dalam penelitian ini, terlebih dahulu saya akan melihat apakah anda memenuhi persyaratan sebagai sukarelawan untuk bisa berpartisipasi. Saya akan menanyakan beberapa pertanyaan:

1. Berapa umur anda? __________________
2. Apakah anda perawat pelaksana?
3. Apakah anda memiliki pengalaman merawat pasien ODHA?
4. Apakah anda memiliki pengalaman melihat perawat lain merawat pasien ODHA?
Catatan:

Jika individu yang mencalonkan diri tidak sesuai dengan 4 syarat yang di ajukan, peneliti akan menjelaskan bahwa yang bersangkutan tidak dapat ikut berpartisipasi dalam penelitian. Sampaikan terima kasih atas waktu dan perhatiannya.

Jika memenuhi 4 persyaratan yang diajukan, lanjut ke tahap berikutnya:

Apa yang telah anda sampaikan menunjukkan bahwa anda memenuhi kriteria menjadi responden dalam penelitian ini. Jika anda tertarik untuk menjadi sukarelawan dalam penelitian ini, saya akan lanjutkan penjelasan saya tentang persetujuan penelitian.
Appendix 10

University of Illinois at Chicago
Research Information and Consent for Participation in Social Behavioral Research

Indonesian Nurses’ HIV Knowledge, Religious Beliefs, Attitudes toward HIV/AIDS, and Perception of HIV-Stigma

You are being asked to participate in a survey about HIV knowledge, religious beliefs, attitudes toward HIV/AIDS, and perception HIV stigma of nurses. Researchers are required to provide a consent form such as this one to tell you about the research, to explain that taking part is voluntary, to describe the risks and benefits of participation, and to help you to make an informed decision. You should feel free to ask the researcher any questions you may have.

My name is Agung Waluyo. I am a nurse and a graduate student at the College of Nursing, University of Illinois at Chicago, U.S.A. I can be reached on my office/cell phones at +21-78849120 or +62-812-1910-1276. This study is funded by NIH-Fogarty International Center. The funding agency account number is D43 TW01419. I am conducting this survey as part of my dissertation for my PhD program. My advisor is Beverly J. McElmurry, EdD., FAAN from the College of Nursing, University of Illinois at Chicago.

We would like to learn more about how nurses’ attitudes toward HIV/AIDS and people living with HIV. Nurses are asked to take part in this study if they are 18 years old or older, and have experience in caring or observing other nurses caring for people living with HIV (PLWH). Your participation in this research is only one time and voluntary. Your decision whether or not to participate will not affect your current or future dealings with the hospital where you work. If you decide to participate, you are free to withdraw at any time without affecting that relationship.

Approximately 400 subjects may be involved in this research from four different hospitals in Jakarta, Indonesia. This study will be conducted in Jakarta Islamic hospital, PGI Protestant Gikini hospital, Carolus Catholic hospital, and Cipto Mangunkusumo general hospital.

The purpose of this study is to determine the nurses’ HIV knowledge, religious beliefs, attitudes toward HIV/AIDS and their perceived HIV-stigma. The questionnaire covers five different areas: socio-demographic data, HIV knowledge, religious beliefs, attitude toward HIV/AIDS, and HIV stigma by nurses. Completion of the questionnaire should take about 30-45 minutes of your time.

Nurses' knowledge & attitude toward PLWH: Informed consent
Version #1
We will protect information about you and your participation in this research to the best of our ability. Your name will not be recorded anywhere. All questionnaires will be labeled with a study code number. The questionnaires and responses will be kept in a secure locked location in an office which is not accessible by others. Responses from the participants will be organized using password protected database that can only be accessed by the Investigator. If the results of this research are published, no identifying information that might link you to this study will be included. However, the principal investigator will review and analyze the information you share with us. If anyone asks you questions about being in the research, you do not have to answer them. To the best of our knowledge, the information you provide has no more risk of harm than you would experience in everyday life.

Although there are no direct benefits to you for taking part in this study, findings from this study will help us learn more about how nurses’ HIV knowledge and religious beliefs affect their attitudes toward HIV/AIDS and their perceived HIV-stigma. After completing the questionnaire, you will be offered some optional topics for a two days seminar. The topic of the seminar will be based on the topic receiving the highest preferences by the nurse participants. You are also entitled to have a free lunch during the seminar days.

If you decide to participate, you are free to withdraw your consent and discontinue participation at any time.

Do you have any questions? If you have questions later, you may contact me at +62-21-7865105 or text me at +62-812-1910-1276 or email me awaluy2@uic.edu. You can contact my faculty advisor, Beverly J. McElmurry, EdD, FAAN at +1-312-996-3035, or mcelmurr@uic.edu or you may call the University of Illinois at Chicago, office for the Protection of Research Subjects at 001-866-789-2614 (toll free) or email at uicirb@uic.edu.

I have read the above information. I have been given an opportunity to ask questions and my questions have been answered to my satisfaction. I agree to participate in this research.

Date
Universitas Illinois di Chicago
Persetujuan Tertulis untuk Partisipasi dalam Penelitian


Anda diminta untuk berpartisipasi dalam penelitian. Penelitian ini bertujuan untuk mengetahui lebih jauh tentang pengetahuan perawat pada HIV/AIDS, kepercayaan religiusnya atau keyakinan imannya, perilaku dan persepsi perawat terhadap ODHA. Peneliti (Saya) akan memberikan lembar persetujuan ini, dan menjelaskan bahwa keterlibatan anda di dalam penelitian ini atas dasar sukarda. Peneliti juga akan menjelaskan keuntungan dan kerugian yang mungkin terjadi dari keikutsertaan anda dalam penelitian ini. Informasi ini akan membantu anda untuk memutuskan keikutsertaan anda. Anda diharapkan bisa bebas bertanya apa saja tentang penelitian ini kepada peneliti.


Penelitian ini melibatkan perawat yang berusia 18 tahun atau lebih, memiliki pengalaman merawat ODHA atau pernah melihat perawat lain merawat ODHA. Sekali lagi saya sampaikan, keikutsetaan anda dalam penelitian ini bersifat sukarela dan anda diminta untuk terlibat hanya satu kali. Keputusan anda untuk ikut atau pun tidak dalam penelitian ini, tidak berpengaruh pada status kepegawaian anda di rumah sakit tempat anda bekerja. Dan apabila anda memutuskan berpartisipasi, anda bebas untuk mengundurkan diri dari penelitian kapan pun tanpa mempengaruhi hubungan anda dengan saya atau pun rumah sakit tempat anda bekerja.


pertanyaan tentang persepsi anda pada stigma terhadap ODHA. Diharapkan anda dapat menyelesaikan pengisian kuesioner ini antara 30-45 menit.


Walaupun keterlibatan dalam penelitian ini tidak memberikan keuntungan langsung pada anda, namun hasil dari penelitian ini dapat bermanfaat untuk mengetahui lebih jauh tentang pengetahuan HIV yang dimiliki oleh perawat, kepercayaan religius yang di miliki oleh mereka, perilaku perawat terhadap HIV/AIDS dan persepsi perawat pada stigma terhadap ODHA. Setelah menyelesaikan pengisian kuesioner ini, anda akan diberikan kesempatan mengikuti seminar keperawatan secara cuma-cuma. Topik seminar akan ditentukan sesuai dengan pilihan terbanyak dari seluruh perawat yang berpartisipasi dalam penelitian ini. Selain disediakan snack dan makan siang selama seminar/pelatihan, anda pun berhak mendapatkan sertifikat dengan SKP dari PPNI.

Jika anda memutuskan berpartisipasi, anda bebas untuk mengundurkan diri dari penelitian kapanpun.


Setelah membaca informasi di atas dan memahami tentang tujuan penelitian dan peran yang diharapkan dari saya di dalam penelitian ini, saya setuju untuk berpartisipasi dalam penelitian ini.

_____________________
Tanggal

Pengetahuan & Perilaku Perawat: Lembar Persetujuan
Versi #1
November 3, 2010

Agung Waluyo, MS
Health Systems Science
845 S Damen Avenue Room 1136
M/C 802
Chicago, IL 60612
Phone: (312) 996-9816 / Fax: (312) 996-8945

RE: Protocol # 2009-1129
“Indonesian Nurses' HIV Knowledge, Religious Beliefs, Attitudes toward HIV/AIDS, and Perception of HIV-Stigma”

Dear Dr. Waluyo:

Your Continuing Review was reviewed and approved by the Expedited review process on October 28, 2010. You may now continue your research.

Please note the following information about your approved research protocol:

**Protocol Approval Period:** October 28, 2010 - October 27, 2011
**Approved Subject Enrollment #:** 400 (Data Analysis Only)

**Additional Determinations for Research Involving Minors:** These determinations have not been made for this study since it has not been approved for enrollment of minors.

**Performance Sites:**
- UIC, Universitas Indonesia

**Sponsor:** NIH Fogarty International Center Training Grant

**PAF#:** Not available

**Grant/Contract No:** D43 TW01419

**Grant/Contract Title:** UIC AIDS International Training and Research Program

**Research Protocol(s):**
  a) Research Protocol: Nurses' knowledge & attitude toward PLWH; Version 1

Your research meets the criteria for expedited review as defined in 45 CFR 46.110(b)(1) under the following specific category:

(7) Research on individual or group characteristics or behavior (including but not limited to research on perception, cognition, motivation, identity, language, communication, cultural beliefs or practices and social behavior) or research employing survey, interview, oral history, focus

Phone: 312-996-1711 http://www.uic.edu/depts/ovcr/oprs/ FAX: 312-413-2929
group, program evaluation, human factors evaluation, or quality assurance methodologies.

Please note the Review History of this submission:

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<th>Submission Type</th>
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<td>Expedited</td>
<td>10/28/2010</td>
<td>Approved</td>
</tr>
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Please remember to:

→ Use your research protocol number (2009-1129) on any documents or correspondence with the IRB concerning your research protocol.

→ Review and comply with all requirements on the enclosure, "UIC Investigator Responsibilities, Protection of Human Research Subjects"

Please note that the UIC IRB has the prerogative and authority to ask further questions, seek additional information, require further modifications, or monitor the conduct of your research and the consent process.

Please be aware that if the scope of work in the grant/project changes, the protocol must be amended and approved by the UIC IRB before the initiation of the change.

We wish you the best as you conduct your research. If you have any questions or need further help, please contact OPRS at (312) 996-1711 or me at (312) 996-0548. Please send any correspondence about this protocol to OPRS at 203 AOB, M/C 672.

Sincerely,

Brande Drumgole
Brandi L. Drumgole, B.S.
IRB Coordinator, IRB #2
Office for the Protection of Research Subjects

Enclosure(s):

1. UIC Investigator Responsibilities, Protection of Human Research Subjects
2. Optional Form 310 – Protection of Human Subjects, Assurance Identification/Certification/Declaration (If federally supported)

cc: Arlene Miller, PhD, RN, Health Systems Science, M/C 802
    Kathleen F. Norr, Health Systems Science, M/C 802
    OVCRR Administration, M/C 672