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Determinants of HIV Stigma Among Healthcare Workers in Ghana

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Walden University
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Abstract

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MPH, Maastricht University, 2001

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Dissertation Submitted in Partial Fulfillment

of the Requirements for the Degree of

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Abstract

HIV-related stigma and discrimination is a complex concept that affects HIV reduction interventions. HIV-related stigma occurs among healthcare providers resulting in reduction of quality of care of people living with HIV. Social psychological research into stigma reduction has led to the development of many stigma reduction interventions, but has not resolved the underlying problem. This study was designed to identify predictors of stigmatizing behavior among healthcare workers in Ghana using the social cognitive theory (SCT) for use in developing an evidence-based intervention. The study used a cross-sectional research design incorporating a preexisting survey, Measuring HIV Stigma and Discrimination Among Health Staff: Comprehensive Questionnaire. Survey data were analyzed using descriptive, multiple regression analysis and Pearson's coefficient to estimate the relationship between the dependent variable, HIV related stigmatizing behavior, and independent variables, personal attributes and environmental factors. The key findings from the analysis were that the personal attributes of healthcare workers predicted their stigmatizing behavior ($R^2 = 0.674$, $p < 0.05$). There was, however, no significant relationship between environmental factors and stigmatizing behavior and between personal attributes and environmental factors. The social change implications may be to reduce stigma among healthcare workers toward people living with HIV and in turn increase the willingness of healthcare workers to engage with people living with HIV and provide quality service to them.

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Dedication

This dissertation is dedicated to my husband, Tony and my children, Ewuradjoa and Yoofi, who were very supportive of my doctoral pursuit. To my parents who showed me the importance of a good education.

I am also dedicating this to the hardworking healthcare workers of Ghana working in the frontline in the management of people living with HIV.

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God bless you all.

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Chapter 1: Introduction

Introduction

Stigma and discrimination against Human Immunodeficiency Virus (HIV) and Acquired Immune Deficiency Syndrome (AIDS) is complex and diverse. This is problematic because, in order for interventions addressing the spread of HIV to have their maximum impact, the issue of stigma and discrimination needs to be addressed (Health Policy Initiative, 2010). In order to ensure that achievements made in the bid to reduce HIV infection rates are maintainedit is important that the issue of HIV stigmatization be addressed. Health-related stigma has been in existence for a long time and has affected several disease conditions such as leprosy, tuberculosis, and HIV. Health-related stigma has been described as a attribute of society that actually happens to an individual or the individual thinks may happen, and may result in the individual being rejected or excluded (Schechter, Bakor, Kone, Robinson, Lue, & Senturie, 2014; Weiss, Ramakrishna, & Somma, 2006).

The Joint United Nations Programme on HIV/AIDS (UNAIDS; 2008) defined stigma as a shameful sign, trace, or impairment of an individual. Stigma is deep seated in the structure and values of society, and it forms part of the daily existence of the particular society (Herek & Capitanio, 1999; Kheswa, 2014; Zeti, 2013). Goffman (1963, p.13) defined stigma as an attribute that is “discrediting” thus making the individual unacceptable in society (Health Policy Initiative, 2010; Scambler, 2009).

Stigma continues to increase the burden in several disease conditions. Stigma significantly prevents a person from learning of their HIV status, because of the fear of

experiencing stigma and discrimination from the society in which they live. It is estimated that globally there are 9 out of every 10 HIV positive individuals who do not know their HIV status (Health Policy Initiative, 2010). Individuals need to know their HIV status before they can be given treatment and care for HIV. Getting tested for HIV is thus important in getting access to care and treatment.

Counseling received during care for HIV enables the individual to plan for his or her future. HIV stigma however has a negative effect on the individual opting for HIV testing and also on the individual's health seeking behavior when diagnosed with the virus. HIV stigma is more likely to cause an individual to engage in risky behavior, which inevitably results in poor health (Health Policy Initiative, 2010). As a result of these negative effects of stigma, it has attracted attention among health professional and the general population in relation to disease prevention and management.

The main barriers to access quality care and treatment for HIVinfection results from stigma and discrimination. The healthcare setting is one of the places where HIV-positive individuals and those thought to be HIV-positive, encounter forms of stigmatization and discrimination (Olalekan, Akintunde, & Olatunji, 2014; UNAIDS, 2013). Stigma has an adverse effect on the outcomes of interventions on prevention, care and treatment.

The healthcare system in Ghana has various categories of facilities, with each managing the care of people living with HIV to a level corresponding to the category of the facility. Specialist care for people living with HIV usually can be obtained at the regional and tertiary levels and in some instances in the district hospitals. HIV testing and

counseling can be obtained across the various categories of facilities and even during outreach programs. Antiretroviral therapy was introduced into the healthcare system of the country in the late 1990s, significantly improving the health outcomes of people living with HIV. Stigma still persists among healthcare providers in health institutions in Ghana.

In this study, I aimed to identify predictors of stigmatizing behavior among healthcare providers in Ghana and their reciprocal relationship using the social cognitive theory (SCT). The information derived from the results of this study may help develop interventions to address HIV-related stigma. The social change I seek to achieve through this study is to increase the tolerance of people living with HIV by healthcare providers. It also hopes to increase healthcare providers' willingness to engage with people who are living with HIV and provide them with the quality treatment and care they need.

Background

Researchers have conceptualized HIV-related stigma. Holzemer et al. (2007) presented a conceptual model that showed stigma to be ever changing. This model could be used to identify relevant areas to target when developing an HIV stigma reduction intervention. In the study, there were two main areas identified the first area consisted of the environment and healthcare system whilst the other area was stigma (Holzemer et al., 2007). They proposed further research in the process of stigma, how it is initiated and the resultant negative outcomes. In an attempt to develop appropriate interventions to reduce the negative outcomes of stigma, the area of HIV-related stigma needs to be addressed.

I conducted a systematic review of scientific literature and found that several factors affect the effectiveness of determining behavior among healthcare workers. Some of which were the kind of health professionals, behavior, sample size, and the method of accessing behavior (Godin, Belanger-Gravel, Eccles, & Grimshaw, 2008). The efficacy of social cognitive theories in understanding healthcare professionals' behavior could be improved further through research and the findings used to inform the development of interventions to address these behaviors (Godin et al., 2008). In the study conducted by Godin et al. (2008), the behavior studied was adoption of new clinical practices by healthcare workers

In another study, to comprehend the HIV-related stigma, authors explored variables such as personal attitude, opinions of people living with HIV and AIDS, discrimination, and knowledge on HIV and AIDS as well as demographic characteristics. Previous results showed that having a progressive personal attitude toward people living with HIV and AIDS was associated with less stigmatizing behavior. Researchers have shown that discrimination at the workplace, discrimination at personal levels, and that shown generally by society, toward people living with HIV is associated with the perceived social norms (Godin et al, 2008; Li, Lang, Wu, Lin, & Wen, 2009). These associations have made it essential to understand social norms and personal attitudes when researching HIV-related stigma (Godin et al., 2008; Li, Liang, Wu, Lin, & Wen, 2009).

SCT is a human behavioral theory that explains behavior as an interaction of personal variables, the behavior itself, and the environment individual operates (Bandura,

1986). Studying these constructs in relation to behavior enables one to understand, predict and change behavior (Bandura, 1986). The SCT has been used to study several human behaviors, such as exercising, homophobic aggression, and dieting (Branscum & Sharma, 2011; Fiala, Rhodes, Blanchard, & Anderson, 2013; Ginis, Latimer, Arbour-Nicitopoulos, Bassett, Wolfe, & Hanna, 2011; Prati, 2012).

Homophobic attitudes toward gay adolescents were associated with students' observed peer aggression and self-reported aggression whilst aggression toward lesbians was not associated with observed peer aggression (Prati, 2012). Social and cognitive factors accounted for student's homophobic aggression (Prati, 2012). In using social cognitive theories to determine the predictors of physical activity among women,, the components, self-efficacy and intention were identified as the strongest determinants (Tavares, Plotnikoff, & Loucaides, 2009). The SCT has therefore been used effectively to determine predictors of some behaviors in other conditions.

The SCT however has not been used in determining predictors of stigma or more specifically HIV-related stigma. Several other theories have been used to determine the predictors of HIV-related stigma. There is still a need however for a conceptual framework that can be used in the development of interventions to address HIV-related stigma. There is a gap in using a behavioral theory frame to understand HIV-related stigmatizing behavior.

In this study, I used SCT as the framework for understanding the reciprocal effects of environment factors which were hospital's HIV policies, infection control guidelines and policies, and personal factors, which were the opinions of people living

with HIV, willingness to provide services to key populations on stigmatizing behavior, and the fear/worry of getting infected with HIV. In this study I hoped to establish a basis for the use of the three constructs of the SCT to support interventions developed to address HIV-related stigma.

Problem Statement

HIV-related stigma and discrimination is still a major barrier to an effective response to the HIV pandemic. Studies have associated HIV and AIDS related stigma to non disclosure of HIV status to partners and negative health outcomes. HIV-related stigma has had an impact on HIV preventive behavior, healthcare seeking behavior, quality of care, healthcare workers and on the larger community (Sayles, Ryan, Silver, Sarkisian, & Cunningham, 2007; Sengupta et al., 2010). After almost three decades of public education on HIV and AIDS and having new breakthroughs in the area of management of the disease, it would have been expected that stigma and discrimination would have been history. This however has not been the story of HIV-related stigma.

Although there has been a 33% decline in new infections, worldwide, in 2012 (down from the previous year), there was approximately 35.3 million people living with HIV due the chronic nature of the infection (UNAIDS, 2013). This has been made possible with the advent of antiretroviral medicines (UNAIDS, 2013). The prevalence of HIV in the adult population varies across the regions, with Sub Saharan Africa having 70% of new infections for the year 2012 (UNAIDS, 2013).

The dynamics of the epidemic varies across countries. National epidemics in some countries have been fueled by new infections among key populations such as men

having sex with men (MSM), sex workers, and people who inject drugs (PWID). Looking at the new HIV infections transmission pattern, Latin America presents with MSM as the key population, contributing largely to new infection, from a rate of 33% in the Dominican Republic to 56% in Peru (UNAIDS, 2013). Majority of these key populations are stigmatized across the regions (UNAIDS, 2013).The association of HIV with certain behavior further fuels HIV-related stigma.

HIV-related stigma and discrimination is still found in many healthcare facilities. In some cases, there are instances of healthcare providers being judgmental toward people living with HIV and refusing them services (Nylade et al., 2003; Nylade et al., 2009). In some instances, there has been involuntary sterilization of women who are HIV positive (African Gender and Media Initiative, 2012). Researchers have shown that fear of contracting infection through contact and making judgment based on morality contributes to stigma and discrimination among healthcare providers toward their clients living with HIV (Nylade et al., 2003, Nylade et al., 2009). Various researchers from Nigeria, Ethiopia and Tanzania have shown that high levels of getting infected with HIV among healthcare workers resulted from the lack of knowledge in the transmission of HIV and their lack of training in the use of universal protective equipment and safety precautions, have contributed to HIV-related stigma (e.g., Nylade et al., 2003; Nylade et al., 2009; Reis et al., 2005).

According to the framework on stigma as defined by Goffman (1963, p.13), stigma is a *discrediting attribute* that prevents full social acceptance for the stigmatized individuals. This thus makes individuals and communities not accepting to individuals

with conditions considered as discrediting. The level of communicability of stigma-related conditions also determines how individuals will react to it (Jones et al., 1984). There are three constructs that define stigma; controllability, concealability and contagion (Law, King, Zitek, & Hebl, 2007).

Earlier portrayal of AIDS as a gay-related disease, led to the perception that individuals had control over the infection (Law et al., 2007). This is as a result of the assumption that homosexuality is a behavior of choice therefore the individual has control over the choice he or she makes. Based on the assumption that HIV is related to gays, and homosexuality is a behavior of choice then it may be deduced that HIV can be controlled (Law et al., 2007). This is the same perception in the case of PWID. Homosexuality and Intravenous drug use are seen as chosen behaviors and thus reinforces the perception that HIV and AIDS is controllable (Law, et al., 2007).

The progression of HIV infection can go undetected for a period of time and this result in stigma that varies over the concealability trajectory (Law et al., 2007). HIV and AIDS is perceived as a potentially contagious disease (Herek, 2002). Individuals in the process of protecting themselves from what they perceive as highly contagious leads them to avoid interacting with people living with HIV.

These three constructs have resulted in HIV-related stigma (Law et al., 2007), which exits in the social interactions. In order to target stigma-reducing intervention, according to Holzemer et al. (2007), researchers have researched the associations of stigma without using an understandable conceptual framework. These researchers have not been able to develop a model that links the context of stigma with its processes.

Little is known of how the healthcare system influences stigma among healthcare workers (Holzemer et al., 2007). Stigma among healthcare workers may be influenced by personal views, societal norms or the work environment. HIV-related stigma can be expressed in several ways in the healthcare settings. In an effort to simplify stigmatizing and discriminating behaviors, they can be classified broadly into neglect, differential treatment, refusal of care, testing and disclosure of HIV status without consent, and verbal abuse (Nylade, Stangl, Weiss, & Ashburn, 2009; Tanzania Stigma-indicators Field Test Group, 2005).

The findings from a study in Tanzania (Nylade et al., 2009) were similar to findings of a study carried out in Ethiopia (Banteyerga, Kidanu, Nylade, MacQuarrie, & Pande, 2004) in which in addition to the Tanzania study, patients with HIV were labeled as HIV-positive on their charts and in the wards. Patients were referred for testing without counseling and were isolated on the wards (Banteyerga et al., 2004). Researchers in India also showed that healthcare providers burnt beddings of patient upon discharge, patient were charged an extra cost for infection control supplies, and healthcare providers always used gloves for all interactions whether physical contact occurred or not (Mahendra et al., 2007).

Although social psychological research into stigma reduction has led to the development of many stigma-reducing interventions, they are still not based on sound theory and methodology (Bos, Schaalma, & Pryor, 2008). The SCT (Bandura, 1986) may be a useful framework to understanding the psychological and social determinants of stigmatizing behavior. In a study to evaluate stigma interventions in five African

countries, researchers found that interventions aimed at empowerment, information and contact showed some positive results though not much stigma reduction was found among the nurses involved in the study (Uys et al., 2009). These researchers also found that the social aspects of stigma and its interactions with other processes such as self-esteem, self-efficacy, and stigma should be researched into (Uys et al., 2009) to improve the formulation of stigma reducing interventions.

Stigma has a bearing on seeking appropriate medical care for people living with HIV and therefore the right intervention to address HIV stigma is important to achieving the UNAIDS vision of *zero new infections, zero discrimination and zero AIDS related deaths* (UNAIDS, 2010, p 7). There have been decades of efforts to understand the nature and processes of HIV stigma, raise awareness of its negative outcomes and implement programs to reduce it but stigma still remains a salient issue in the global response to the pandemic. Stigma and discrimination in healthcare settings play a role in preventing individuals from adopting HIV preventive behavior and better health seeking behaviors. Individual also avoid testing and disclosure because of the fear of being stigmatized and discriminated against.

Researchers in studies carried out in Senegal and Indonesia among MSM and PWID respectively showed that these groups of people avoided or delayed accessing HIV related services and treatment for sexually transmitted infections (STIs) because they feared being exposed and also being stigmatized by healthcare providers (Ford, Wirawan, Sumantera, Sawitri, & Stahre, 2004; Nianget al., 2003). Avoiding or delaying accessing HIV related services leads to compromising the health and well being of the individual

living with HIV. The avoidance of HIV related services has implications in terms of cost to the individual and public health as a whole. Both experienced and perceived stigma results in reduced utilization of preventive services, this includes prevention of transmission of mother to child services (Nyugen, Oosterholf, Pharm, Hardon, & Wright, 2009), testing and counseling (Obermeyer & Osborn, 2007) and accessing care and treatment (Kinsler, Wong, Sayles, Davis, & Cunningham, 2007). There is the need for a theoretical base to determine how the healthcare system and other attributes affect the stigmatizing behavior among healthcare providers toward people living with HIV.

I conducted this study to find out the relationship between constructs of reciprocal determinism of the SCT in respect to HIV-related stigma. The goal of this study is to determine the predictors of HIV-related stigmatizing behavior among healthcare workers, the interactions of the hospital environment, and personal attributes. The hospital environment in this study was defined by hospital HIV policies, and infection control guidelines and policies, whilst personal attributes was defined in this study as fear/worry of contracting HIV infection, opinions/beliefs about people living with HIV, and willingness to provide services to key populations. The findings of this researched helped to better understand the stigmatizing process among healthcare providers which could further be used in the development of interventions based on proven theoretical framework to address the issue of stigmatization.

Purpose of the Study

There has not been much research into using health behavioral models to determine the predictors or determinants of HIV-related stigmatizing behavior. A study

carried out by Holzemer et al. (2007) tried to look at stigma as occurring in the three contextual areas of the environment being cultural, political, economic, legal and policy, the healthcare system which are the facilities such as clinics, hospital and the healthcare workers and finally the agent. The agent refers to the individual who is self-stigmatizing; family members, colleagues and friends (Holzemer et al., 2007). This study did not look at the links of these factors.

The reciprocal effects of these variables, environment and personal attributes, on each other have also not been researched into much in the Ghanaian context. The purpose of this cross sectional study I carried out, which was based on the framework of the SCT, was to use the reciprocal determinism construct to determine predictors of HIV-related stigma among healthcare providers/workers. I focused in this study, on the premise that there are personal and environmental factors that affect HIV-related stigmatizing behavior. The purpose was addressed by:

a) Determining the personal factors predicting HIV-related stigmatizing behavior among healthcare providers in Ghana,

b) Determining the environmental factors predicting HIV-related stigma behavior among healthcare providers/workers in Ghana, and

c) Determining the interaction of these personal, environmental factors, and stigmatizing behavior.

The independent variables were the personal attributes: fear/worry, opinions of people living with HIV, and environmental factors: hospital policies and infection control measures at the healthcare facility. The dependent variable was stigmatizing behavior and

discriminatory acts. In this study, I assessed the predictors of HIV-related stigma and the reciprocal relationship between personal attributes, environmental factors, and stigmatizing behavior among healthcare workers.

Research Questions and Hypothesis

RQ1: How does personal attributes of healthcare professionals influence the tendency of healthcare professionals to stigmatize people living with HIV?

RQ2: Does the working environment influence the personal attributes of the healthcare profession in relation to the tendency to stigmatize people living with HIV?

RQ3: Does the working environment influence the healthcare professionals' tendency to stigmatize people living with HIV?

$H_0$1. There is no reciprocal relationship between personal attributes of healthcare providers and the stigmatizing behavior of healthcare providers.

H_a1: There is a reciprocal relationship between personal attributes of healthcare providers and the stigmatizing behavior of healthcare workers.

$H_0$2: There is no reciprocal relationship between personal attributes of healthcare providers and their working environment

H_a2: There is a reciprocal relationship between personal attributes of healthcare providers and their working environment.

$H_0$3: There is no reciprocal relationship between environmental factors existing in the healthcare providers working environment and the stigmatizing behavior of healthcare providers.

H_a3: There is a reciprocal relationship between working environment of the healthcare providers and the stigmatizing behavior of healthcare providers.

Theoretical Framework for Study

The most successful public health promotion programs and initiatives are based on the understanding of health behavior and the circumstances in which they occur. Several health behavior theories have been developed to understand human behavior. One of such theories is the SCT postulated by Bandura (1986). The SCT was used to determine the predictors of stigmatizing behavior in healthcare workers and their interactions.

The SCT defined human behavior as being controlled by the repercussions of the interactions of personal factors, behavior and environment (Bandura, 1986). The SCT assumes that behavior change is influenced by the interactions that occur between personal factors, environmental factors and the behavior (Bandura, 1986). Behavior is developed predominantly through cognitive systems.

Through a cyclic system of feedback, a person's own behavior is formed by the interactions of the environment and the personal attributes. Reciprocal determinism means that an individual can both act as an agent of change and also changes in the environment and reinforcement can be used to promote behavioral change. Cognition however changes over time due to maturation and experience (Bandura, 1986). In the SCT there are some constructs relevant to human behaviors that are observational learning, reinforcement, self-control, and self-efficacy. Understanding of these processes associated with one's constructs of cognition that enables one's behavior to be

understood, predicted and changed. The determinants proposed by the SCT also operate in diverse areas of functioning as they do in health behavior (Bandura, 1997).

The reciprocal interaction of these three constructs does not mean that all factors influencing behavior do so at equal strength. The SCT also assumes that some sources of influences may be stronger than others and also may not occur at the same time. There may be differences in individual characteristics, the behavior being studied and the environment in which the behavior is being manifested (Bandura, 1986). The SCT also takes into account biological factors of humans such as sex and ethnicity, and the influences they have on behavior. The environmental factors to which an individual has been exposed determine the behavior and vice versa, behavior also changes the environment (Bandura, 1986). The SCT is depicted diagrammatically below.

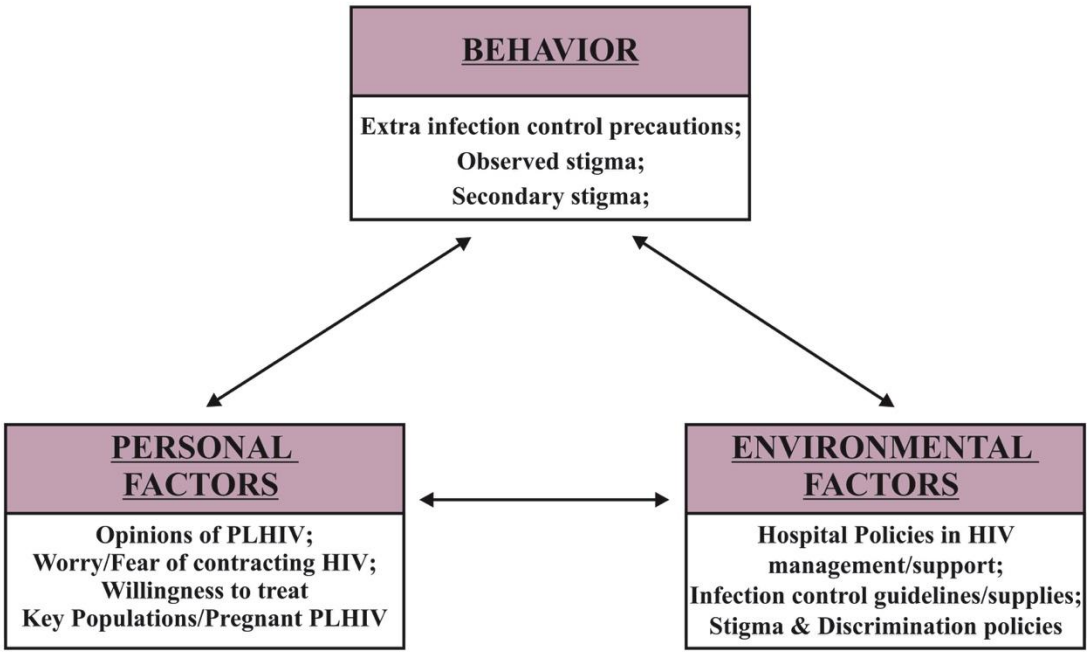

Diagram: Triadic Presentation of Reciprocal Determinism

Figure 1. A triadic representation of reciprocal determinism.

Note. Adapted from "The Self System in Reciprocal Determinism," by A. Bandura, 1978, *American Psychologist*, *33*, p 345. Copyright 1978 by the American Psychological Association.

Nature of Study

The study was a quantitative study to determine the predictors of stigmatizing behavior of healthcare workers toward people living with HIV based on construct of the SCT. In this study I determined the correlation between the two independent variable personal factors and environmental factors with the dependent variable stigmatizing

behavior. The SCT has been used to determine the reciprocal effects of personal attributes, environmental attributes and human behavior on each other. These constructs were used to predict HIV-related stigmatizing behavior among healthcare providers and the relationship of these constructs.

I conducted a cross-sectional study of health workers. These healthcare workers were those working in the 37 Military Hospital in the greater Accra region of Ghana. Random sampling was used in the selection of participants. A preexisting survey tested for reliability was used to measure the variables for personal attributes which were the opinions of people living with HIV, worry/fears of contracting HIV, willingness to provide services to key populations and environmental factors which were hospital HIV policies and infection control guidelines and polices and stigmatizing behaviors.

I collected data using a survey tool that was filled out online or physically using survey forms made available to participants. In the study I used SPSS version 21 to analyze the data collected using multiple regression and Pearson's coefficient. The demographics variables in the survey tool were analyzed using frequency tables.

Variables of the Study

The independent variables were personal factors: Opinions/beliefs about people living with HIV, fear/ worry of contracting HIV infections, and willingness to provide services to the key populations and environmental factors of HIV policies and infection control guidelines and policies. The dependent variable was stigmatizing behavior of healthcare providers which were observed stigma and enacted stigma. Demographic variables included age, sex, job, work experience, trainings in HIV management.

Definitions of Terms and Variables

Frequent and common terms used in the study are defined. These definitions are adopted from institutions and authors with expertise in the area of HIV and HIV-related stigma and stigma such as Herek, (2002).

Discrimination and stigmatizing behavior: For the purpose of this study, these will be used interchangeably. Discrimination occurs when stigmatization is acted upon by a concrete behavior. This behavior may be exclusion, rejection or devaluation. Discrimination can also take place on a personal level or be enacted through societal and structural inequalities (Abbey et al., 2011).

Enacted stigma: Also referred to as external stigma or discrimination, refers to the experience of unfair or adverse treatment by others toward the individual (Gray, 2002).

Felt stigma: Also referred to as internal stigma or self stigmatization, refers to the shame and expectation of discrimination by others which prevents individuals from talking about their experiences and also stops them from seeking help (Gray, 2002).

Ghana Health Service (GHS): The organization which oversees all healthcare facilities in Ghana that provide healthcare services to Ghanaians excluding the teaching/tertiary hospitals.

Healthcare workers, Healthcare providers, and Healthcare professionals: For the purpose of this study these three terms will be used interchangeably. They refer to doctors, nurses, community health nurses, pharmacist, pharmacy technicians, biomedical scientist and other health professionals who provide health services to client.

HIV-related stigma: Refers to attitudes or perceptions of shame, disgrace, blame or dishonor associated with the HIV disease (De Cock, Mbori-Ngacha, & Marum, 2002).

Instrumental stigma: This is related to a concern about the potential consequence of interacting with a person with HIV. The concerns arise from the fear of contagion and the seriousness attributed to HIV (Bos, Schaalma, & Pryor, 2008).

People living with HIV (PLHIV): Refers to individuals who have tested sero positive for HIV.

Post exposure prophylaxis: This is an antiretroviral regimen given to individuals following exposure to HIV. This may be following a needle stick injury, splashes of infected body fluids to mucosal membranes or rape.

Stigma: Can be defined as a lasting negatively valued circumstance, status or characteristics, which discredits and disadvantages an individual (Herek, 2002).

Symbolic stigma: This is related to a concern about what HIV symbolizes. This is often the negative attitude associated with HIV such as homosexuality and intravenous drug use (Bos et al., 2008).

Key population: Also referred to as most at risk populations are men who have sex with men, people who inject drugs, sex workers and transgender persons (USAID, 2014).

Assumptions and Limitations

I assumed that all participants would corporate and give honest answers to the questions asked. Another assumption was that most participants would respond to the questionnaires. A respondent and non respondent analysis was done. The research did not

include any information and or opinions from people living with HIV and focused only on responses by healthcare providers. In this study I assumed that the opinions from people living with HIV would not be directly related to stigmatization and discrimination by healthcare providers. Cross sectional studies are mainly descriptive and most appropriate for screening hypothesis. In order to account for confounding which is a concern with cross sectional studies multivariate analysis was applied in the analysis of the data collected.

In this study I determined the predictors of HIV-related stigma. There are limitations in cross sectional studies. In cross sectional studies internal validity is low. The external validity in cross sectional studies is high and to achieve this, respondents were representative of the study population (Creswell, 2009). The study population was healthcare providers working in an accredited healthcare facility in Ghana, the 37 Military Hospital. Workers in other facilities in the Greater Accra region were not part of the study. Participants were randomly selected.

Significance

HIV-related stigma continues to be of concern to the fight against the disease. As a public health concern this needs to be addressed in order to help prevent and manage the disease. UNAIDS (2010) has set a target of zero discrimination and in order to achieve this as a country there must be zero discrimination in Ghanaian healthcare facilities. Health care facilities are the institutions that provide care and treatment to people living with HIV and thus form a good starting point for addressing this issue of stigmatization.

The findings of the study would help inform future studies to develop interventions to address HIV-related stigma. Understanding the role of cognition and the environment in individual behavior can help design an intervention to motivate change in behaviors and also help in developing interventions for achieving improvement. This research will demonstrate the role of the SCT in understanding stigmatizing behavior among healthcare workers and provide a framework to formulate interventions to address stigma. Stigma reduction among healthcare workers will improve the care and treatment received by people living with HIV. The barrier to healthcare will also be reduced.

The study may help to further improve society's attitude toward people living with HIV and AIDS. Stigma among healthcare workers has been a barrier to seeking healthcare and. preventing health seeking behaviors. Stigma among healthcare workers also increased risky behavior and reduced the quality of care (Sayles, Ryan, Silver, Sarkisian, & Cunningham, 2007; Sengupta et al., 2010). It is therefore imperative that stigmatizing behavior among healthcare professionals be addressed to improve the health outcomes of people living with HIV. A country with reduced HIV-related stigma in its healthcare facilities will ensure better health outcomes for persons with HIV and reduced prevalence rates of HIV among the populace.

Summary

In this study, I researched predictors of stigmatizing behavior. I also researched the correlation between personal factors and stigmatizing behavior and the correlation between environmental factors and stigmatizing behavior and the correlation between personal attributes and environmental factors. The findings of this study can form the

basis of a theoretical framework for developing interventions (Godin, Belanger-Gravel, Eccles, & Grimshaw, 2008). I used the constructs of the SCT to determine the predictors of HIV-related stigma and their relationship with each other.

In the next chapter I reviewed literature in relation to the problem statement. The areas of literature reviewed were concepts of general stigma, HIV-related stigma, determinants of HIV-related stigma, the use of the SCT in determining health behavior, and various theories used to address and understand HIV-related stigma and a critique of methods used to determine predictors of stigma. Chapter 3 includes the methodology, and instruments used in the study. In Chapter 4, I presented the findings, and in Chapter 5, I provided interpretation of the results and recommendations for action, future studies and the conclusion of the study.

Chapter 2: Literature Review

Introduction

HIV related stigma among healthcare workers still needs to be addressed in order to address the HIV and AIDS pandemic. Studies have shown that fear of being stigmatized by healthcare providers has resulted in men who have sex with men and people who inject drugs not seeking treatment (Ford et al., 2004; Niang et al., 2003). In this study I determined the relationship between the environmental factors, personal factors, and stigmatizing behavior of healthcare providers toward people living with HIV and AIDS.

In this study I used the SCT. I looked at literature in relation to the origins of stigma, the prevalence of HIV-related stigma, and the various concepts that have been used to understand HIV-related stigma. The manner in which stigma and discrimination is exhibited in human behavior was reviewed. Predictors of stigma have been determined by other studies and some of these studies were reviewed. The use of the SCT in understanding human behavior was analyzed. Other studies that have been used to understand HIV-related stigmatizing behavior and the predictors associated with HIV-related stigma have been analyzed. The critique of the various methods identified in determining the predictors of HIV-related stigma were reviewed and considered in its application.

In this literature review I looked into current literature on HIV related stigma, concepts and theories developed to explain HIV-related stigma and also literature dealing with the use of the SCT in behavior change. I conducted a comprehensive search in

ESCO databases and these were, PubMed, Academic Search Premier, Google Scholar and related conference papers on the internet. Key search words were: *HIV and AIDS, stigma, HIV-related stigma, Health care professionals*, and, *social cognitive theory*. Publications from 2007 to 2015 were reviewed. The search included reading through abstract first to determine the relevance of the article to the study, then reading the whole article. Books on the topic were also reviewed. In this literature review I looked at the concept of stigma in relation to HIV then reviewed various forms of stigma and discrimination as experienced by different categories of individuals.

Origins of Stigma

Herek (2002), defined stigma as a negative permanent condition which discredited and disadvantaged an individual. Goffman (1963, p.13) also described stigma as "an attribute that is discrediting". Stigma may be:

1. *Enacted*- which is also referred to as external stigma or discrimination. This is the experience of "unfair treatment" by others toward the individual (Gray, 2002 p. 72).
2. *Felt*- which is also internal stigma or self stigmatization refers to the "shame and expectation of discrimination" by others which prevents individuals from talking about their experiences and also stops them from seeking help (Gray, 2002 p.72).

In this study I determined the predictors of enacted and observed stigma among healthcare providers toward people living with HIV. The different predictors of stigma as a result of various studies and the application of the SCT in determining certain behaviors

were reviewed from various literatures. Because the reciprocal determinism nature proposed by the SCT has not been used in understanding HIV-related stigma the possibility of applying this theory to HIV-related stigma based on other studies is assessed.

Stigma has been in existence for several centuries and seen in various disease conditions. Some of these disease conditions are neglected tropical diseases. Stigmatizing descriptions of these neglected tropical diseases such as leprosy, schistosomiasis, guinea worm have been found in the Bible, the Talmud (Hotez, Ottesen, Fenwick, & Molyneux, 2006; Ostrer, 2002), Papyrus Ebers and the writing of Hippocrates and other ancient writers (Hotez et al., 2006). These diseases were associated with curses and were stigmatized even in the olden days, resulting in afflicted persons shunning societal contact or seeking medical help (Hotez et al., 2006).

HIV-related stigma, has been in existence since the early diagnosis of the disease and associated with some negative outcomes of the disease. Stigma has an effect on an individual's decisions, behaviors and outcomes. HIV-related stigma was identified as a barrier to care and treatment of people living with HIV (Sengupta, Strauss, Miles, Roman-Isler, Banks, & Corbie-Smith, 2010), and therefore it is important that a better understanding of the nature of stigma and its predictors is made. This will enable researchers develop interventions to deal with HIV-related stigma.

Stigma pertains in many countries, across several cultures and gender. The attributes of stigma may vary but the outcomes relatively remain the same. Studies to determine how stigma pertains across the globe have been conducted in many countries

with varying results (e.g. Afrane, Boafo, & Asante, 2012; Amuri, Mitchell, Cockcroft, & Andersson, 2011; Visser, Makin, Vandormael, Sikkema, & Forsyth, 2009). In rural India both tribal and rural communities accepted that there was HIV-related stigma in the communities (Vlassoff, Weiss, Rao, Ali, & Prentice, 2012). Researchers showed that although there was wide knowledge of HIV but it did not translate to reducing stigma. The community not discussing HIV issues was seen as further fueling HIV-related stigma. Gender was also seen as influencing the outcome of stigma. Males rather expressed the fact that women were more vulnerable to stigma (Vlassoff et al., 2012).

Prevalence of HIV-Related Stigma

Researchers in a study conducted in Ghana to determine the prevalence of HIV-related stigma in some communities and to identify the perceptions of community members toward HIV and people living with HIV came up with the following findings:

- 17.8% of people living with HIV had experienced strained relationships with their families because of their status.
- 86.7% of people living with HIV - felt their presence in the community resulted in fear among community members.
- 46.7% of community members – perceived HIV as a curse
- 53.3% of community members perceived HIV as a punishment from God (Afrane, et al., 2012).

Researchers in this study showed the high prevalence of stigma among communities in Ghana. Another study by Amuri et al., (2011) in Tanzania showed a similar trend with 58% of respondents agreeing that HIV was a punishment for sinning.

In a South African community the level of felt stigma was found to be significantly lower than what was thought to exist in the community. There was a correlation between the felt stigma and perceived community stigma score ($r = 0.09$, $p < 0.005$; Visser et al, 2009).These studies have highlighted the fact that stigma prevails in different communities across the continents and cultures. The driving force of HIV-related stigma needs to be researched further to identify concepts.

Concepts of HIV-Related Stigma

Rodgers and Knafl (2000) stated that concepts generally form the foundation for any theory. Theories on the other hand provided basis for the relationship or interrelationship among the concepts (Floron-Smith & De Santis, 2012). There are several beliefs that have lead to stigma and discrimination against people living with HIV. The beliefs that HIV was a contagious, a deadly disease and that HIV positive persons were responsible for their disease state, have been found to contribute to HIV-related stigma (Stutterheim et al., 2012). HIV-related stigma arose from a mix of negative attitudes, beliefs and actions portrayed by people toward people living with HIV or people affected by HIV. These negative attributes had a tendency to result in harmful entrenched beliefs or actions by people living with HIV or people affected by HIV, giving rise to negative health outcomes (Floron-Smith & De Santis, 2012).

Goffman (1963) came up with a theory to explain stigma. The theory developed by Goffman (1963) was grounded in the concept of social identity. This concept sought to differentiate those who were considered to be normal and those considered not to follow the norms of society thus making them deviant. On the basis on being deviant,

resulted in them being stigmatized and discriminated against. According to Goffman's (1963) theory therefore stigma was associated with social identities. There was an inconsistency in how people saw themselves and how other people saw them (Goffman, 1963) and this negatively influenced the individual's identity leading to isolation in society.

In another instance stigma was seen to be exhibited as four characteristics which were "prejudice, discounting, discrediting characters and discrimination" (Herek, 1999, p.1106). Stigma may be categorized into two forms, external stigma (enacted stigma), which are the attitudes or actions shown toward people living with HIV. These may include rejection, judgmental attitudes, avoidance, disrespect, violence among others. These actions were ascribed to the lack of HIV transmission knowledge (Floron-Smith & De Santis, 2012) but the study by Vlassoff et al. (2012) stated that despite high levels of knowledge of HIV stigma still existed in communities. The other form of stigma, which is internal HIV-related stigma, arose from beliefs or actions by people living with HIV and these could range from shame and self blame to despair and depression (Floron-Smith & de Santis, 2012).

Researchers in other studies have defined stigma in three constructs. These were: Controllability, concealability, and contagion (Law, King, Zitek, & Hebl, 2007). Earlier portrayal of AIDS as a disease associated with homosexuality, led to the perception that individuals had control over the infection. The same perception was seen in the case of people who inject drugs. Homosexuality and Intravenous drug use were seen as chosen

behaviors and thus strengthened the perception that HIV and AIDS is controllable because it arose from a behavior that was seen as a behavior of choice (Law et al., 2007).

The progression of HIV infection can go undetected for a period of time thus giving it a degree of concealability. This resulted in stigmatization, which varied along the trajectory of HIV infection from the asymptomatic stage to full-blown AIDS. HIV-related stigma therefore varied over the concealability trajectory (Law et al., 2007). HIV and AIDS were also perceived as a potentially contagious disease. Individuals, in an attempt to protect themselves from what they perceived as contagious, avoided interacting with people living with HIV. These three constructs therefore resulted in HIV-related stigma that existed in social interactions (Law et al., 2007).

The issue of controllability was also demonstrated in a study comparing three disease conditions of HIV, Tuberculosis and Severe Acute Respiratory Syndrome (SARS; Mak et al., 2006). The attributes of controllability and being responsible came into play when explaining stigma experienced by individuals with these three disease conditions. Tuberculosis and SARS were seen as diseases that were less controllable compared to HIV and AIDS. Knowledge however did not significantly contribute to stigmatization in theses disease conditions (Mak et al., 2006). In this study by Mak et al. (2006) they attempted to explain factors of stigma shown toward persons with infectious diseases. In this case the issue of controllability seemed to contribute more to stigma than contagion.

The fact HIV was associated with behaviors perceived as going against the norms of society such as promiscuity, homosexuality and commercial sex work also contributed to stigma associated with HIV (Dowshen, Binns, & Garofalo, 2009).

In a study of low earning adults living with HIV, Sayles, Ryan, Silver, Sarkisian, and Cunninham (2007), identified four areas of HIV-related stigma. These were blame and stereotyping, fear of getting infected, disclosing ones' status, and social constructs. Blame was classified as self-blame for being HIV sero-positive, blame from friends, family, and healthcare providers. Stereotyping of people living with HIV was expressed as unacceptable behavior or social orientation (Sayles et al., 2007). The domain of fear of infection was also seen in the study by Borgart et al. (2008) thus highlighting the issue of contagion.

Using the socio-cognitive framework to conceptualize HIV-related stigma had been restricted to analyze the labeling of people living with HIV by the general population as a result of the beliefs and attitudes they had and how the general population focused on specific emotions and understanding of people living with HIV (Herek, 2002; Mahajan et al., 2008). Studies conducted on stigma stressed on perceptions, the origins of stigma in human understanding and the effects on social discourse (Parker & Aggelton, 2003; Link & Phelan, 2001; Mahajan et al., 2008). Several studies have implicitly and explicitly used a sociocognitive concept, but these studies have excluded structural aspects of stigma. These structural aspects were social, economic, and political environments, which produce and intensify stigma and discrimination (Link & Phelan,

2001; Mahajan et al., 2008) and in this research I intend to look at the predictors of environmental process on stigma.

The concepts of HIV-related stigma described so far has shown some dynamics that result in stigma but one concept alone does not fully explain all the issues resulting in stigma. There may be other attributes that may result in stigma, which may differ across communities, cultures and environments. Using SCT to address the issue of how personal, behavioral and environmental factors reciprocally contribute to HIV-related stigma may help in developing interventions to reduce HIV-related stigma depending on communities, cultures, personal beliefs and environmental factors. The environmental and personal beliefs may differ across countries, communities and institutions so these will be noted in developing a framework using the SCT.

History provides several examples of disease conditions that people found to be living with, were discriminated against, discredited and discounted. In a study carried out by Swendeman, Rotheram-Borus, Comulada, Weiss, and Ramos (2006), 89% of substances using young people living with HIV reported perceived or felt stigma, 31% experienced enacted stigma, whilst 64% reported experiences in their life time. The perceived or felt stigma was associated with young females having symptoms of AIDS and having a violent sexual episode, (Swendeman et al., 2006). Researchers in this study looked at only the concepts of stigma as described above. The environmental factors that may have contributed to stigma were not highlighted in the study by Swendeman et al. (2006) which is looked at using the SCT in this research.

Forms of Stigmatization and Discrimination

HIV-related stigma is experienced by various categories of individuals with its resultant negative outcomes. Looking at the different forms of stigma and discrimination encountered by these various categories of individual further strengthens the need for research to understand predictors of stigma with a theoretical framework which can inform intervention development.

HIV-Related Stigma Experienced by People Living with HIV

Among individuals affected by HIV and AIDS, stigma is experienced in different forms and across different cultures and social constructs. According to Afranie et al., 2012, the most frequent form of stigmatization and discrimination felt by people living with HIV were rejection by family; being ostracized by society and family, and spousal disagreements.

Bogart et al. (2008) explored qualitatively, HIV-related stigma as experienced by people living with HIV. The stigma was classified as being from external and internal sources. In this study, three forms of stigma were researched. These were felt, enacted and courtesy stigma. Courtesy stigma being stigma arising from a situation where an individual was associated with a person living with a stigmatizing attribute (Bogart et al., 2008). The felt stigma resulted from the fear of being discriminated against, ostracized or losing respect. The enacted stigma was experienced as rejection, verbal insults, and abandonment by friends, family and the community (Bogart et al., 2008). Courtesy stigma was experienced mainly by children of persons living with HIV and this was

depicted by shunning by friends and family (Borgart et al., 2008). Stigma in this instance occurred as a result of the infection or being associated with the infection.

In assessing whether culture played a role in stigma exhibited using the Berger HIV stigma scale, Rao, Pryor, Gaddist, and Mayer (2008) found that there were no differences in felt stigma but there were some differences in experienced or enacted stigma. Black individuals were more worried being judged on morality issues whilst white individuals were more concerned about rejection by family and friends (Florom-Smith & De Santis, 2012). These results show how culture has an impact on reasons for enacted stigma. In order to address issues of enacted stigma cultural environments in which individuals operate needs to be studied and understood.

According to Sayles et al. (2007), women and men of low income status also experienced the categories of concepts of stigma; blame and stereotypes, fear of infection, disclosure and social constructs from healthcare workers. Some participants reported receiving inferior medical care as in the case of obtaining emergency care. A study comparing stigma as perceived across various economical strata would have helped show the relationship between stigma and economic status, but this was researched in this study.

Some enacted stigma experienced by members of some communities in South Africa were gossip, lack of respect, keeping a distance by community members toward people living with HIV, physical harm and community members not taking care of infected people (Visser et al., 2009). In a cross sectional study conducted in Karnataka some enacted stigma experienced by people living with HIV were divorcing the infected

spouse, not wanting to sit next to a person living with HIV in a bus, and dismissal from jobs. The driving force behind these acts was the fear of being infected (Unnikrishnan, Mithra, Rekha, & Reshmi, 2010). This enacted stigma may appear different by a cursory look but similar on the grounds of isolation. Some acts appear to be extreme in the case of physical harm.

Sexual Orientation and HIV-Related Stigma

Based on the concept of controllability (Law et al., 2007), stigma was experienced by people whose sexual orientation or behaviors were considered as deviant depending on cultures and beliefs across the world. Personal characteristics of people living with HIV such as their sexual orientation, use of drugs and having multiple sex partners were shown to trigger stigma (Rutledge, Whyte, Abell, Brown, & Cesnales, 2011). There has been considerable research in the area of stigma toward key populations (e.g. Rogers et al., 2014). Considering the form of stigma experienced by these category of individuals, Rogers, et al. (2014), found that layered stigma exhibited by healthcare providers in rendering services to key populations infected with HIV and AIDS showed high levels of blame and negative judgment toward MSM and sex workers. Health care professionals though shared the view that people living with HIV, MSM and sex workers deserved quality care, they still expressed discrimination and stigmatizing attitudes toward them. The stigma was shown most toward MSM who were HIV positive or sex workers, followed by people living with HIV who were not considered as most at risk, then MSM and finally sex workers. Among young MSM, it was found that the total Berger HIV stigma scale scores were significant and there was a positive correlation with social

support and self esteem. On a disclosure concerns subscale there was a correlation with romantic loneliness, which suggested that participants were likely to avoid relationships due to fear of stigma that accompanied stigma (Dowshen, Binns, & Garofalo, 2009).These attitudes may be addressed by instituting comprehensive HIV specific education in the curriculum of health professional training institutions. Stigma reduction programs should also be introduced in the curriculum of these various institutions to help address healthcare providers' attitudes. The working environments for healthcare providers should also be addressed to ensure stigma is reduced.These may be further reinforced with evidence from research.

HIV-Related Stigma Experienced and Expressed by Healthcare Providers/Workers

Health care providers are expected to provide clinical and psychosocial support to people living with HIV to help them cope with their disease condition. However stigma and discrimination among healthcare workers has been widely documented. Some of these instances where stigma and discrimination occurred were HIV testing being done without the consent of the patient, violating confidentiality, labeling of patients, and differential treatment (Letemo, 2005; Sadoh, Fawole, Sadoh, Oladineji, & Sotiloye, 2006). The fear of stigmatization by healthcare professionals stalled preventive efforts such as promotion of safer sex practices and prevention of mother to child transmission (PMTCT), preventing individuals from testing for HIV and accessing care and treatment if diagnosed with the disease (Letemo, 2005; Sadoh et al., 2006). Various predictors have been attributed to HIV-related stigma amongst healthcare providers and in its wake several interventions have been developed with minimal success. Some studies have

concluded that equipping healthcare providers with adequate knowledge in HIV was of paramount importance in minimizing HIV-related stigma among healthcare workers (Feyissa, Abede, Girma, & Woldie, 2012), whilst Li, Liang. Wu, Lin, & Wen (2009) demonstrated that perceived social norms, liberal personal attitudes were associated with the level of discrimination intent, perceived discrimination at interpersonal levels and prejudicial attitudes toward people living with HIV. Therefore understanding the different predictors and how they relate and influence each other is vital to the comprehension of HIV-related stigma among healthcare providers.

The discovery of medications to manage HIV infection has changed the face of HIV and AIDS globally. These drugs are now available in most countries both industrialized and developing. The availability of antiretroviral (ARV) medications has changed HIV and AIDS from a fatal condition to a chronic disease condition which can be managed. Despite these gains made in reducing HIV infection, stigma has been identified as contributing to non adherence to ARV medication. People living with HIV in Ghana have access to ARV medications. Strict adherence to ARV medication is essential in the management of HIV and AIDS, therefore missed doses has a negative impact on outcomes of the disease. Missed doses were linked with stigma (Rintamaki, Davis, Skripkauskas, Bennett, & Wolf, 2006). There was a strong link between perceived stigma and self reported reasons for missed doses of ARVs (Dlamini et al., 2009). These findings suggested that part of the reasons for poor adherence to ARVs was related to stigma. Stigma contributing to non adherence may be as a result of public stigma and stigma experienced in the healthcare facilities.

Health care workers' attitude toward people living with HIV varies across countries and cultural settings. These attitudes are influenced by different constructs and affect the care and treatment given to people living with HIV in the clinical settings. Healthcare workers showed an unrealistic level of fear of infection in some cases. One participant in a study described such an encounter in which the healthcare provider put on a mask and double gloves to take a blood pressure reading (Sayles, et al., 2007). One may assume that healthcare workers have adequate knowledge of HIV to know that HIV cannot be transmitted through direct contact but it was not the case in this study.

Researchers have also shown that depending on the services rendered by healthcare workers, the environment in which they operate had a bearing on their attitudes toward people living with HIV (Roger et al., 2014). Health care professionals in non clinical services showed higher instances of stigma as compared to professionals working in clinical settings. Staff who worked in the general patients'services showed higher levels of stigma compared to those in MSM/sex workers' friendly services and finally those who had received no training in HIV services showed higher levels of stigma as compared to those trained (Roger et al., 2014). Researchers in this study showed that the mode of acquiring the infection, influenced stigma shown to people living with HIV. The mode of transmission of the infection having an interrelationship with HIV-related stigma was reinforced in a study by Chan and Reidpath (2007). In this mixed method study results using the Q sort task to arrange scenarios along a two point scale according to their willingness to interact with people living with HIV, showed that PWID, people living with HIV and commercial sex workers all attracted some individual

level of stigma. There were strong interactions found between, HIV-related stigma, intravenous drug use related stigma and stigma associated with commercial sex work. The concept of controllability was reinforced in this study (Chan & Reidpath, 2007).

Researchers in a study to analyze prejudicial evaluation and social interaction by healthcare workers with people living with HIV and people with Hepatitis B infection showed that health professionals attaining higher levels of medical education showed a higher prejudice toward people living with HIV than toward patients with Hepatitis B infection (Li, Wu, Lin, Detels, & Wu, 2007). Health care professionals with higher medical education also showed a less willingness to social interact with people living with HIV than with Hepatitis B patients. The perceived risk of acquiring infection at work was negatively associated with willingness to interact with patients with HIV. These findings however varied across the various healthcare professionals (Li, Wu, Lin, Detels, & Wu, 2007). It will be assumed as has been shown by some studies that increase in knowledge decreases stigma but as illustrated in the above studies it will be assumed that with the knowledge of transmission of HIV and Hepatitis B the related stigma may be similar or more in the case of Hepatitis B as infectivity of Hepatitis B is hundred times more than HIV. The question of the extent to which the concept of contagion influences HIV-related stigma is raised and needs to be determined. This is however not the case in the study above thus raising the question of the interaction of more factors in predicting HIV-related stigma.

Researchers in a study to investigate stigmatization and discrimination exhibited by doctors and nurses against people living with HIV (Andrewin & Chien, 2008), found

that the commonest stigmatizing attitude was that of blame and judgment, whilst disclosing a patient's HIV status to colleagues was the most frequent act of discrimination. Doctors compared to nurses showed more stigmatization in attitudes toward measures such as testing all admitted patients and notifying sexual partners or relatives without the consent of the patient, conducting HIV test without consent and disclosure of patients HIV status to colleagues. Nurses on the other hand were more likely to give differential care to patients based on their HIV status (Andrewin & Chien, 2008). Researchers however did not look at environmental and personal factors such as values, beliefs and self efficacy, influencing the behavior of these categories of healthcare professionals. Researchers in some studies have shown that there were differences by gender, type of staff, type of institution providing service, and exposure to relevant training (Roger et al., 2014), and culture. How these factors interact is an important area to study to help formulate interventions to address HIV-related stigma. This underscores the need to develop and institute interventions that will address these negative biases in clinical practice.

Predictors of HIV-Related Stigma

In order to deal with interventions to address stigma, predictors need to be identified. Applying a framework to understand predictors of stigma and their interactions is an important way of addressing issues of HIV-related stigma. Some studies have tried to determine predictors of HIV-related stigma among some categories of individuals, healthcare workers being one of these groups. According to Perrson et al., (2014) the perception that HIV was more than an ordinary chronic disease and its ability

to multiple in various clinical and social directions affected the social framing of HIV. Social constructs of HIV could affect the willingness of doctors to care for people living with HIV. Researchers further argued the need to research further the perspectives of HIV stigma in order to reframe HIV and develop strategies that will reduce stigma and as a result promote dedication among healthcare workers (Perrson et al., 2014).

According to Li et al., (2007), predictors of discrimination intent toward people living with HIV were found to be the perceived levels of support from the institutions in the area of protection measures and the general view of healthcare workers toward people living with HIV. Researchers found institutional support changed with age, gender, ethnicity and training and these inversely resulted in discrimination toward people living with HIV. The researchers further advocated for further research to understand HIV related discrimination in healthcare setting at both individual levels and institutional. In exploring stigma and discrimination against people living with HIV by healthcare workers in the Jimma zone of Southwest Ethiopia, Feyissa, Abebe, Girma, and Woldie (2012), showed that having knowledge about HIV, perceived institutional support, trainings in stigma and discrimination reduction, the educational level of the healthcare providers, the availability of antiretroviral therapy (ART) services at the healthcare facility, and being non religious, all negatively predicted stigma and discrimination. In the case of the level of education being a negative predictor of stigma and discrimination, the more educational levels attained the less likely the healthcare provider would discriminate against or stigmatize people living with HIV (Feyissa et al., 2012).

Several factors have been shown to be predictors of HIV-related stigma. Formal HIV and AIDS training too was significantly associated with less stigmatizing attitudes of imposed measures such as all admitted patients should be tested, blame and judgment, and testing without consent by healthcare providers (Andrewin & Chien, 2008). Women and religious healthcare workers were more likely to stigmatize by blaming or judging than were male and non religious healthcare workers. Older age was a negative predictor of acts of discrimination of disclosure of patients HIV status (Andrewin & Chien, 2008).

In the general population there has been research to identify some factors predicting stigmatizing behavior. These factors could be personal, cultural or socio-economic. In a study by Amuri, Mitchell, Cockcroft, and Andersson (2011), the association between poverty and other variables and stigmatizing attitudes was examined. This association was examined in a multivariate model. The other variables examined included food sufficiency as an indicator of poverty, age, sex, education, experience of partner violence, inability to make a choice in condom use, discussion on HIV and AIDS, sources of information about HIV and AIDS and rural and urban residence (Amuri et al., 2011). People from poorest households and persons having less than a primary school education were more likely to stigmatize. In addition persons having experienced intimate partner violence, living in a rural area and being unable to make a decision in the use of condom were most likely to stigmatize (Amuri et al., 2011). In the case of education being a predictor of stigma, Unnikrishnan et al. (2010) rather found individuals with less than a secondary education were more likely to discriminate against people living with HIV.

In determining the extent to which stigmatizing attitudes were affected by socio-demographic characteristics, in a South African community, researchers found that older individuals, males, persons with less education and those with minimal knowledge about HIV were more likely to stigmatize (Visser et al., 2009). These categories of individuals were also less likely to know a person living with HIV and entertained more traditional opinions such as people with HIV were cursed and that traditional healers could cure HIV and AIDS (Visser et al., 2009). From the studies reviewed it can be shown that lower education is associated with stigmatizing behavior. Education may increase an individual's understanding of the disease process and transmission thus reducing the probability of the higher educated health professionals stigmatizing people living with HIV.

On the other hand HIV-related stigma was the predictor of some job related conditions among healthcare providers. HIV-related stigma affected job satisfaction among healthcare workers (Chirwa et al., 2009). According to Chirwa et al. (2009), perceived HIV stigma was the strongest determinant of job satisfaction among nurses caring for people living with HIV across five African countries. This provides a new area of intervention strategies to improve the work environment of nurses in HIV care. Job dissatisfaction among healthcare workers working in the area of HIV services was also corroborated by a study carried out in Vietnam which also saw stigma as a factor leading to additional work related stress, low self esteem, poor views of their profession, low income and fear of infection (Pharm et al., 2012). The healthcare workers in Vietnam

were influenced by norms of the society, and their attitudes and prejudices (Pharm et al., 2012). These had an effect on the services provided by healthcare workers.

Researchers in a study have suggested that interventions promoting HIV testing, HIV education and universal access to ARVs may reduce HIV-related stigma (Genberg et al., 2009). Results from a study showed that negative attitudes toward HIV and AIDS were associated with never being tested, lack of knowledge of ARVs, and never talking about HIV and AIDS. Communities with lowest prevalence of HIV showed more negative attitudes whilst communities with lowest ARV coverage showed the most perceived discrimination against people living with HIV and AIDS (Genberg et al., 2009).

Social Cognitive Theory

In researching into human behavior, there have been several theories linking certain factors to certain behaviors. Most of these theories favor unidirectional causal models emphasizing either environmental or internal personal determinants of human behavior. There are several theories used to explain physical, biological and interpersonal phenomenon. A theory was used to show the variations in the way people comprehend real life situations and the scientific interpretation of the situation (Kim, 2010). Bandura (1978) had explained behavior as a result of a continuous bidirectional interaction between the behavior, the environment in which the individual finds him or herself and personal factors. These three factors interact reciprocally (Bandura, 1978). These personal factors included thoughts, cognitive skills, attitudes, emotions and knowledge. The relationship between these three was not necessarily a direct one (Bandura, 1978).

Several concepts have been used to identify predictors of HIV-related stigma but not much has been used in the field of social cognition to understand the predictors of stigma. The SCT has been used in other fields of human behavior to understand particular behaviors. The social cognitive theory has been used in several researches to understand behaviors toward physical activity.

In a study to understand the aging and determinants of physical activity, Anderson-Bill, Winett, Wojcik and Williams (2011) found a reciprocal relationship between age, social support, self-efficacy and physical activity with gender, and race contributing to outcomes. Individuals who felt support from their families for physical activity were more likely to perform the behavior and overcome barriers pertaining to the behavior. Self-efficacy to perform was linked with engaging in physical activity and this was linked to age and social support (Anderson-Bill et al., 2011).

Researchers in another study also looking at physical activity among adolescent girls used the SCT (Motl, Dishman, Saunders, Dowda, & Pate, 2007). It was demonstrated that the perception that equipment for exercising was available, the neighborhood in which the facility for exercising was safe and there was social support felt for exercising was present, influenced physical activity among older adolescent girls (Motl, Dishman, Saunders, Dowda, & Pate, 2007). When predicting physical activity in people with spinal cord injury the SCT variables of environment, personal attributes and behavior were found to be useful in making predictions (Ginis et al., 2011). Self-regulation was identified as the strongest predictor of physical activity in persons with spinal cord injury (Ginis et al., 2011). Researchers in another study stated that the SCT

variable self-efficacy had a causal relationship with exercise in endometrial cancer survivors (Basen-Engquist et al., 2013). This was a starting point for an intervention that may benefit endometrial survivors to undertaken exercise regimens (Basen-Engquist et al., 2013). Behaviors relating to physical activity have been widely studied using the SCT. Researchers have shown that the SCT can be used to understand the behavior of physical education. Literature search did not show any research in the area of SCT used to predict HIV-related stigma in any population or culture. However there have been several theories used to investigate HIV-related stigma (Steward et al., 2008).

Theories Used to Understand HIV-Related Stigma

From the onset several theories have been used to understand HIV-related stigma (Steward et al., 2008). This was done in order to find appropriate interventions to address this public health problem. Outcomes of HIV-related stigma had a negative impact on prevention, care and treatment of HIV. HIV stigma is grounded in a complex system of beliefs of the disease and progress and also in social inequalities.

The social identity theory was proposed by Goffman (1963) in his work on stigma. This theory has been used to explain stigma. The social identity theory explained that certain appearances were a precursor to a behavior. The identities could be personal attributes or structural attributes. One's social identity could therefore include:

1. Physical factors
2. Professional roles
3. Concept of self

Anything affecting any of these conditions listed above resulted in stigma (Goffman, 1963; Markowitz, 1998; Stuenkel & Wong, 2009). This theory was based more on the individual.

A conceptual framework of structural violence has also been used to understand HIV-related stigma (Castro & Farmer, 2005). This framework proposed that each society was shaped by forces indentified within the society and these forces joined together to form structural forces. These forces of society were seen as racism, sexism, poverty and other societal inequities among others arising from history and the economy (Castro & Farmer, 2005). The structural violence framework:

- Predisposed that the body was vulnerable to disease depending on the risk of infection and the state of progression of the disease (Castro & Farmer, 2005).
- Demonstrated the individual who had access to support such as counseling, testing and treatment for HIV (Castro & Farmer, 2005).
- Determined who suffers from stigma and discrimination because of their status (Castro & Farmer, 2005).

Based on these constructs of the structural violence framework it was assumed that in societies where racism exists, people of color with the HIV infection would be stigmatized more (Castro & Farmer, 2005). In such a society where gender inequality existed a woman being HIV infected was more likely to be stigmatized and experience domestic violence than a woman in a society where there was gender equality (Castro & Farmer, 2005). The poor were more likely to experience discrimination in societies where

there existed the economical societal force (Castro & Farmer, 2005). It could therefore be concluded from the structural violence framework that poor people living with HIV would more likely suffer HIV-related stigma in a society where the economic status of individuals mattered. Racism, sexism and poverty compounded the effects of each other in an individual experiencing discrimination (Castro & Farmer, 2005). In this framework Castro & Farmer (2005), stated that, to understand HIV-related stigma several variables which are discernable across different societies needed to be studied. They suggested further studies in some of these variables, such as experiences of people living with HIV, public perception of HIV, and their effects on health seeking behaviors (Castro & Farmer, 2005). Various studies have been conducted on some of these variables. Researchers have shown that HIV-related stigma did affect care seeking behavior, the magnitude of stigma varied across the disease trajectory (e.g. Castro & Farmer, 2005; Bos, Schaalma, & Pryor 2008).

Another theory used to understand HIV-related stigma was the cognitive-emotional model. The cognitive – emotional model demonstrated how perceived contagion, perceived seriousness of HIV, perceptions of responsibility and norm violating behavior were related to the emotional and behavioral reactions toward people living with HIV. These in turn resulted in the stigmatization of people living with HIV (Bos, Schaalma, & Pryor, 2008; Djiker & Koomen, 2003). The model showed how mental process was related to emotional and behavioral expressions toward people living with HIV (Bos, et al., 2008). Perceived seriousness of the disease and perceived contagion resulted in fear which positively impacted on stigmatization. Perceived seriousness also

resulted in pity which negatively impacted stigmatization. Perceived responsibility of the individual for being infected by the virus and practicing norm violating behavior negatively affected pity whilst the same two constructs resulted in anger which in turn positively impacted stigmatization, Bogart et al. (2008). The model further depicted the difference between instrumental stigmatization and symbolic stigmatization. Instrumental stigmatization was related to the thoughts of perceived infectivity and perceived seriousness whilst symbolic stigmatization related to norm violating behavior (Bos et al., 2008).

In trying to study stigma among healthcare professionals, Rutledge, Whyte, Abell, Brown, & Casnales (2011) used the HIV/AIDS provider stigma inventory (HAPSI) to measure stigma amongst healthcare providers. It attempted to give healthcare providers insight into their attitudes about their interactions with people living with HIV, and determine stigma related behavior amongst their interactions (Rutledge et al., 2011). The model grounded in the social psychological stigma framework and the awareness, acceptance and action model (AAAM) dwells on awareness (Rutledge et al., 2011). The social psychological stigma framework proposed that individuals attached negative attitudes to daily differences experienced among people. Some of these differences experienced were related to gender, race and class. These labels then became stereotypes which reinforced out-groups which eventually led to discrimination. This resulted in maintaining a physical distance which resulted in instrumental stigma and a social distance which was symbolic stigma. These actions are displayed in power situations with healthcare workers having an acquired power over their patients due to the fact that

they were seen as custodians of treatment. The society on the other hand expected healthcare workers to adhere to societal norms which when not dealt with resulted in unintended or purposeful stigma (Rutledge et al., 2011).

The AAAM provided a framework for internal reflection by healthcare workers to be able to identify their fears and prejudices based on associated status and history. These two theories made the HAPSI look at the causes of stigma and the healthcare worker understand how their thinking processes and behaviors translated into their interactions which resulted in stigmatization (Rutledge et al., 2011). The social psychological stigma framework thus was another theory to understand the predictors of stigma and the HAPSI went further to use this to measure stigma among healthcare workers.

Stigmatizing behavior and discrimination has been a behavior that has impacted negatively on the fight against HIV and AIDS. It has resulted in limited uptake of HIV counseling and testing and has resulted in the inability of people living with HIV to receive care and treatment. It therefore has to be addressed effectively so as to have an impact in the war against the disease HIV and AIDS. Similar perception about HIV resulting in stigma abides across the globe and in various cultures, yet interventions to address HIV-related stigma still have not managed to make the impact that is desired. In this study to understand the predictors of HIV-related stigma using the SCT variables of reciprocal determinism of personal factors, environmental factors and behavior may result in the better understanding of HIV-related stigma.

Outcome of HIV-related stigma

Some outcomes of HIV-related stigma are mental health issues such as depression, lack of social support, low self esteem and loneliness (Garofalo, 2009), and others such as medication non adherence, lack of accessing healthcare services, housing, employment, and violence (Sengupta et al., 2010).These outcomes are of much concern in the prevention and treatment of HIV and AIDS.

Though interventions have addressed stigma in some instances, some interventions have not made an impact. In a study carried out in five African countries to find out the results of an HIV stigma interventions in the healthcare settings researchers showed that stigma experienced by people living with HIV can be decreased using interventions that involved information giving and empowerment. The intervention used in this study was based on Goffman's (1963) concept of stigma. Stigma however, experienced by nurses caring for people living with HIV was less easy to change and so were their self esteem and self efficacy (Uys et al., 2009).

HIV and AIDS stigmatizing attitudes and their effects on adopting preventive behaviors and seeking care and treatment are still one of the poorly understood areas in the HIV and AIDS epidemic.

Critique of Methods

Various methodologies have been used to address predictors of HIV-related stigma in the various literature that has been reviewed. These methodologies ranged from quantitative through to qualitative. In the literature reviewed majority are quantitative research methods. In a research carried out by Feyissa et al., (2012), a mixed method was

used to determine stigma and discrimination of people living with HIV by healthcare workers in Ethiopia. Qualitative key informant interviews and focal group discussions were used and a survey instrument was used to measure indicators for the quantitative segment of the study. In this study a total of 255 healthcare workers responded to the survey instrument. The statistical tests used were t-test and ANOVA. ANOVA was used to compare stigma scores across the various categories of healthcare workers whilst multiple regression analysis was used to determine predictors of stigma and discrimination. Other independent variables were controlled for. Pearson's correlation coefficients were used to analyze the relationship between stigma and some continuous variables.

In another the study by Li et al. (2007) Pearson's correlation coefficient was used to assess the relationship between discrimination and other variables such as work, general prejudicial attitudes, perceived institutional support to mention at the same time taking into consideration age and gender. In this study carried out in China, multiple regression analysis was carried out to assess the association between the level of discrimination, prejudicial attitude and perceived support systems whilst controlling for the effects of age, gender ethnicity, education and personal contact with people living with HIV (Li et al., 2007).

Independent sample t-tests and ANOVA were used to assess the association between independent and dependent variables (Andrewin & Chien, 2008). This study to determine predictors of HIV-related stigma also used other descriptive ways to depict the personal and professional information such as percentages, means and standard

deviations and frequencies (Andrewin & Chien, 2008). The sampe size for this study was 230 participants.

Visser et al. (2009) used descriptive statistics and paired t-test was used to compare stigma displayed by individuals and that by the community. T-tests or ANOVA was also used in this study to assess the relationship between independent variables which were categorical, where appropriate. Pearson's correlation coefficient was used to assess the relationship between continuous independent variable which were continuous and stigma scores. Similar statistical test were used in the various studies to determine predictors of HIV related studies.

In this study I used multiple regression analysis and Pearson's coefficient to determine the relationship between the independent variables, personal attributes which are the opinions of people living with HIV, fear/worry of infection and willingness to provide services to key populations, environmental factors which are HIV policies of the institution and infection control guidelines and policies and the dependent variable, HIV-related stigma among healthcare workers. And to determine which independent variables are predictors of stigma amongst healthcare workers. Stigma in this case was enacted stigma and observed stigma. Stigma expressed by different categories of staff was not fully analyzed in this study. The main aim was to consider them as one group. However some descriptive analysis was looked at. Healthcare workers were considered as one group. There was only one dependent variable therefore *t* test and ANOVA were not appropriate in this instance. There were multiple independent variables which were either personal or environmental factors.

Summary

Stigma is an age old attribute of society. Various studies have resulted with different predictors of stigma, some having similar predictors. These predictors of stigma may be different across the various studies but generally the outcomes of HIV-related stigma remain relatively the same. Fear of infection, culture, stereotyping, social constructs, economical and political constructs have been described as some of the predictors of HIV-related stigma. Different theories have been used to define the concept of stigma. Stigmatizing behavior is expressed in different forms among the general population and among healthcare workers. Among healthcare workers HIV-related stigmatizing behavior can be expressed as disclosing patients' HIV status, not giving adequate treatment among others. Several theories have been used to research HIV-related stigma. The SCT has been used to research different human behaviors but not to determine HIV-related stigmatizing behavior. The next chapter reviews the appropriate methodology, instrumentation, sampling, sample size and also determine the appropriate analysis for the research.

Chapter 3: Research Method

Introduction

Great strides have been made globally in the management of the HIV. HIV-related stigma continues to be of public health concern despite advances made in the management of HIV and AIDS. Despite various interventions developed to address this issue, it persists.

HIV-related stigma has been of public health concern in relation to the management of people living with HIV. Ghana faces the issue of HIV-related stigma both in the general population and among healthcare professionals. HIV-related stigma has resulted in people living with HIV not getting the required and quality treatment from healthcare providers. HIV-related stigma is associated with individuals not wanting to get to know their HIV status for fear of being stigmatized. HIV-related stigma has resulted in a slowing of efforts in managing the HIV pandemic although enormous strides have been chalked. In this study I used a theory-based approach, to identify predictors of HIV-related stigma. Constructs of SCT was used to determine the predictors of enacted stigma. In this Chapter I looked at the research methodology, the study population, sampling, data analysis, and validity.

Research Method and Design Appropriateness

The research design and method is the path to be used to investigate the research question posed. Creswell (2009) identified two methods under quantitative research inquiries. These are experimental designs and nonexperimental designs such as surveys. The survey research provides a numeric description of a sample, looking at either trends,

attitudes or opinions (Creswell, 2009). A quantitative research method was used to conduct this research. The research approach used was a nonexperimental type. Quantitative research is usually used to test theories; this is done by analyzing the relationship between different variables (Creswell, 2009). The quantitative approach was therefore appropriate for this study as it was to examine the relationship between the variables, behavior, personal attributes and environmental factors.

The purpose of this research was to use a behavior model to determine the predictors of HIV-related stigma among healthcare providers and the relationship between the variables. The purpose was to determine the personal attributes of worry/fear of contracting HIV and opinions of people living with HIV, willingness to provide services to key populations and the environmental factors which are infection control policies and guidelines and HIV policies relating to their work place that predict a healthcare professional stigmatizing a person living with HIV, and to also determine the interaction of these personal, environmental factors and stigmatizing behavior of the healthcare worker.

There has been limited research in the area of using health behavior models to determine stigmatizing behavior. The theoretical framework used in the research was the SCT. The reciprocal determinism construct of the SCT (Bandura, 1986) formed the basis of this research to determine reciprocal effect in the predictors of HIV-related stigma among healthcare providers.

The SCT tries to explain human behavior in terms of a continuous interaction between cognitive (personal), behavior and environmental determinants. This interaction

is reciprocal (Bandura, 1977; Bandura, 1986). I built this study on the premise that personal and environmental factors affect HIV-related stigmatizing behavior.

The independent variables of this study were the personal attributes (which were the fear or worry of getting infected in the line of duty, willingness to treat key populations, and the opinions the healthcare worker had of people living with HIV. The other independent variable was the environment factors in which the healthcare professional operated. The environmental factors in this study were the work place policies and guidelines in relation to HIV and AIDS and the work place environment in terms of infection control practices and policies. The dependent variable was stigmatizing behavior and discrimination of the healthcare worker toward people living with HIV.

In this study I determined predictors, of HIV-related stigma among healthcare professional in Ghana using a quantitative research method approach. The study was a cross-sectional study. The study type chosen enabled me to collect data from a large and dispersed number of participants. Cross-sectional research designs are good for exploratory researches, in this study I explored whether the SCT could be used to identify the predictors of HIV-related stigma among healthcare providers. Cross-sectional studies occur at a definite point or period in time and therefore do not give an account of events leading to that particular point in time (Creswell, 2009).

Nonresponse in a cross sectional study leads to issues in internal validity. To minimize nonresponse, mail prompting was adopted. In the online survey, I classified the questions as *required*, where appropriate thus ensuring that all required questions were answered. The goal of this cross-sectional study was not to make causal inferences as this

is difficult using this type of study design. The results obtained from this study may differ from similar studies held at different points in time (Creswell, 2009).

Instrumentation and Measurements

I used a survey as the measuring tool. The survey contained questions which had been placed in the following categories: Background information of the participant, Infection control in the facility, health facility environment, health facility policies, opinions about people living with HIV, and antenatal care and PMTCT (this was limited to staff working in the labor wards and antenatal clinics; Health Policy Project, 2013). I then coded numerically the answers obtained from the survey in an SPSS data base version 21. The data was analyzed using mathematical based methods in SPSS version 21. Although predictors of behavior could not be obtained numerically the designed survey translated these attitudes and conditions into quantitative data.

I adapted a predeveloped survey used to determine the stigmatizing behavior of healthcare staff to determine the various factors relating to stigmatizing behavior using the SCT. The survey used was the Measuring HIV Stigma and Discrimination Among Health Facility Staff survey. This was produced by the Futures Group (Health Policy Project, 2013). This survey instrument had been pretested in various regions of the world by other researchers and this had ensured empirical validity (Nyblade et al., 2013). The survey had been piloted in six sites. The sites were China, Dominica, Egypt, Kenya, Puerto Rica, and St Kitts and Nevis (Health Policy Project, 2013). Permission was granted by the Futures Group to use this survey and any other relevant materials provided the correct citation was used.

The scale of reliability of the survey was analyzed using Cronbach's alpha. The survey with a 5 item scale had an alpha of 0.78 (Nyblade et al., 2013). This is considered acceptable in this type of survey. Alphas of at least 0.7 are typically used as cutoff to establish internally constant scales (Nunnally & Bernstein, 1994; Ware, Snow, Kosinski, & Gandek, 1993).

In this survey, the levels of measurement I used were the nominal and ordinal levels of measurement. The nominal was used to determine the background information which could be exhaustive and mutually exclusive (Frankfort-Nachmias & Nachmias, 2008). The ordinal level of measurement was used to measure attitudes of healthcare workers, personal factors and the environmental factors associated with the healthcare facility. Mostly 4-point Likert scales were used in determining the scores of the various variables. The Likert scale used in survey made it easy to use and understand the data collected (e.g., Hassan & Arnetz, 2005). Respondents were asked to indicate their answers based on favorability/agreeability or likelihood, scores were then computed and analyzed.

Informed Consent

I obtained informed consents from all participants. Due to the anonymity of the study, the informed consent stated that in participating in the study it showed that consent had been given. The informed consent form gave the participants some background information on the research. I explained the objective of the study to participants. The procedure of the research was also explained to participants in the consent form. Participants were assured that it was a voluntary process and could opt out of the process

at any time. The foreseen risks in this study (of giving out vital information on personal views of policies of the hospital, and the chance of it being seen by authorities) were eliminated by making the study anonymous.

The benefits of the study were to better understand stigmatization among healthcare workers and in turn find solutions to change this behavior. I used study codes on data documents and no identifying information was collected. The code could not link participants to their responses. The documents will be kept for a period of 5 years in the office and at home after the research. After this period the documentations will be disposed of by burning. There was no follow up interviews or administering of the survey. I would inform participants of the results of the research upon completion through the hospital authorities.

The study design was the most appropriate considering the limited funds I had available to carry out this research. It was also appropriate for determining predictors of attitudes. I collected data through online survey sent through emails and paper surveys put in common rooms and mailboxes. To ensure confidentiality in both the paper and electronic survey no personal information was required. The online survey did not identify those filling out the forms. There was no interaction between individuals submitting paper surveys and myself. In the case of the electronic survey, the IP was not accessible by me.

Research Question

The research question was to help focus on the purpose of the study. In answering the research question I was able to relate the constructs in the SCT to HIV-related stigma among healthcare professionals.

RQ1 How does personal attributes of healthcare professionals influence the tendency of healthcare professionals to stigmatize people living with HIV?

RQ2 Does the working environment influence the personal attributes of the healthcare profession in relation to the tendency to stigmatize people living with HIV?

RQ3 Does the working environment influence the healthcare professionals' tendency to stigmatize people living with HIV?

Hypothesis

Bandura (1986) explained human behavior as being influenced by personal factors and environmental factors with each of these three working interactively. The environment was composed of the social environment and the physical environment. The SCT used constructs from cognition, behavior and emotions to address behavioral change. The SCT was based on the premise that individuals learn through their own experiences and also by observing the actions of others and the results of these actions, (Bandura, 1986).

The SCT recognized the influences of environment on behavior, but in this theory the focus was on the ability of the individual to alter environments to their own advantage which was not considered in this study. The SCT used systematic principles that provided

a basis for explaining certain phenomenon (Rosenstock ,Strecher & Becker, 1988). Based on these the following hypotheses were put forward:

$H_0$1. There is no reciprocal relationship between personal attributes of healthcare providers and the stigmatizing behavior of healthcare providers.

H_a1: There is a reciprocal relationship between personal attributes of healthcare providers and the stigmatizing behavior of healthcare workers.

$H_0$2: There is no reciprocal relationship between personal attributes of healthcare providers and their working environment.

H_a2: There is a reciprocal relationship between personal attributes of healthcare providers and their working environment.

$H_0$3. There is no reciprocal relationship between environmental factors and the stigmatizing behavior of healthcare providers.

H_a3: There is reciprocal relationship between environmental factors and the stigmatizing behavior of healthcare providers.

Population

The study population was healthcare providers working in the 37 Military Hospital in the Greater Accra region. This health facility was a military facility but also took care of civilians with both civilian and military healthcare providers. It was a tertiary hospital and had a primary healthcare department. I studied the various categories of healthcare providers as a group and this group consisted of doctors, nurses and auxiliary nurses, physician assistants, laboratory technicians, radiology technicians and pharmacist and pharmacy technicians and any other category of healthcare providers. Since I did not

consider any particular profession in this study the different categories of healthcare providers were looked at as one unit. Permission to conduct the research in the facility was obtained from the Ethical Review Board of the 37 Military Hospital.

The Inclusion criteria for selection of participants were:

1. They had to be healthcare providers working in the 37 hospital in the greater Accra region.
2. They had to be working in the general or specialist outpatients, general or specialized inpatients departments or HIV care departments.
3. Had to have had at least 3 years working experience post qualification.

The exclusion criteria were:

1. Health care workers in other health facilities in the Greater Accra region.
2. Health care workers with less than three years working experience post qualification

The participants were invited via the email and by using flyers. An informed consent form was made available to all eligible participants but they were not required to return them. Once the survey was filled it indicated that consent had been given.

Strengths

Strengths in using a survey are that is a good tool for measuring attitudes and eliciting other contents from the research participants (Frankfort-Nachmias & Nachmias, 2008). It provided information on the participants' internal meaning of the concept. It was inexpensive to administer, in the case of this study I administered the survey through mail boxes and the internet.

Limitations

Limitations of using the survey was that respondent could be biased in providing information. They may have tried to depict in their answers what is socially desirable. Data compilation and analysis was time consuming (Babbie, 2007). The population did not include healthcare professionals from the other regions of the country and other facilities in the Greater Accra region. There may have been some factors peculiar to these regions which may have had an import on HIV-related stigma. The instrument for measurement was designed to collect data on HIV-related stigma among healthcare professional but not on the concept of SCT in particular and therefore may have been a limitation for this study. The constructs of the SCT were however all captured in the survey questions. Limitations of using the Likert scale according to Hassan & Arnetz (2005) was that the wording of the questions could affect the responses.

Sampling

The aim of sampling was to produce a miniature copy of healthcare professionals in the 37 Military Hospital in the Greater Accra region of Ghana. The sampling method was to ensure that there was the likelihood for all healthcare professionals in this facility being chosen thus making it possible to make inferences from the results obtained to the larger population. A random sampling was performed. The study did not consider any specific category of staff's stigmatizing behavior or comparing the behavior across categories. Health care professional for the purposes of this study were considered as one group comprising all categories.

The Sample

The sample size obtained was comparable to a quantitative research that used a power of 0.8 and an alpha of 0.05. Estimation of the sample size was done using Cohen (1992). In order to determine the research questions I carried out a multiple regression analysis as well as Pearson's coefficient analysis. Using a medium effect size (f = 0.15),which allowed for a maximum level of power to detect an effect if one should exist considering two independent variables, the required sample size was 67 (Cohen, 1992). An initial size of 255 was projected from similar studies conducted. However my sample size was 214 due to nonresponse to surveys and discarding incomplete surveys.

Data Analysis Plan

I coded the data collected from the survey and entered data into SPSS version 21. The descriptive analysis of the sample was done using frequency tables for demographic and professional data. To address the research question multiple regression analysis and Pearson's correlation was carried out using data obtained from the survey.

Multiple Regression and Pearson's Correlation Coefficient

Multiple regression is a statistical process estimating the relationship among variables and predicts the relationship of the variables. The regression analysis estimated the level to which the dependent variable is dependent on the independent variable, in this case how HIV-related stigmatizing behavior was dependent on the personal attributes of the healthcare providers and the environmental factors of their work place. Correlation analysis was also done to determine the correlation between the personal attributes and stigmatizing behavior and the correlation between environmental factors and stigmatizing

behavior. The personal attributes were the opinions the healthcare worker have of people living with HIV, their fears of getting infected during their work and their willingness to treat key populations. The environmental factors being the work place policies in relation to HIV and the working environment which was infection control measures at the work place. Regression analysis was widely used to infer causal relationship between the dependent and independent variable. A $p < 0.05$ was statistically significant.

Operationalization of Variables

The survey questions used to measure the various variables were: For demographics two questions (1 and 2) which were coded Age and sex, measured the age and gender of participants. Job related variables were measured from the results of questions 3 to 7(5 questions) of the survey tool. The variables were job, joblength, expHIVdept, numHIVptser, training. These measured the current job, number of years working in healthcare, if participants had ever worked in a clinic/hospital or department specializing in HIV care, number of HIV patients the respondent had provided services in the past 12 months and training in HIV stigma, Infection control and universal precautions, Patients' informed consent and key populations respectively.

The personal attributes which were defined by the opinions of healthcare workers of people living with HIV and willingness to treat key populations was measured from responses from questions 18 – 22 and 25, whilst fear or worry of contracting HIV from work and being stigmatized for caring for people living with HIV, was measured from responses from questions 8, 12, 13 & 23 of the survey tool. These responses were coded as variables (18-22) – 'PLHIVinfectothers, PLHIVshdfeelashamed, PLHIVmultipartners,

PLHIViresponsibleehavior, HIVpunishment, FPLHIVbabies, prefernotPWID, PWIDrisk, PWIDimmoral, PWIDtrained, prefernotMSM, MSMrisk, MSMimmoral, MSMtrained, prefernotSW, SWrisk, SWimmoral, SWtrained. For variables (8, 12, 13& 23) they were named worryofgetHIVtouch, worryofgetHIVwounds, worryofgetHIVdrawbld, worryofgetHIVtemp, worriedtalkbadly, worriedfriendfamily, worriedofcolleagues, hesitantHCW and assistinglabor'. The combination of all these variables was named the variable PERSONAL

The environmental factors which were the hospital policies or guidelines to HIV management and infection control practices and policies were measured with questions 14 through to 17. The responses to these questions were named 'notaccepttotest, troubleif discriminate, adequatesupplies, standardizedprocedures, writtenguidelines'. The combination of all these variables was named the variable ENVIRONMENT

The enacted stigma observed, carried out or experienced by healthcare providers were measured by question 11 & 24, 9.The responses from these questions were named, -'unwillingtocare, providingpoorerquality, talkingbadly, HIVconsent, neglectinlabor, addcontrol, disclosestatus, FPcond, infectprevavoidcontact, infectprevdoublegloves, infectprevglovesalways, infectprevspecialmeasures.The combination of all these variables was named the variable STIGMA.

A 4 point likert scale was used in answering the questions. Strongly disagree was scored a 4 to strongly agree taking a one. In the instances, where there was *A Not Applicable* response it scored a zero. *Yes* responses scored 1 and *No* responses scored 2, whilst *Don't know* scored a zero.

In analyzing the data obtained from the survey, each participants response was assigned a unique identification number and responses organized as per question in the survey. These were entered in a database in SPSS version 21 software. A record of the list of the variables and their names and respective numerical codes were developed. To ensure that errors in the data were kept at the barest minimum I adopted some techniques to clean the data. Spot checks on the data were done by randomly selecting several completed surveys and comparing with the database in SPSS. Eye balling was also carried to ensure that no none existing codes were entered in the database. Finally logic checks were carried out in the case of questions that were followed by a particular response in the next question were correctly entered. These techniques were used to clean the data collected.

Validity

The validity of a research is determined by the ability of the research instrument to measure what it intends to measure. The survey contained relevant questions that measured the factors that were related to personal and environmental and stigmatizing behavior. The survey had already been tested in various regions of the world to evaluate the survey design, contents and reliance. The threat of the use of this survey to validity was that it was not designed specifically to test the SCT. The instrument had been used in other research and was reliable. The scale of reliability of the survey had been analyzed using Cronbach's alpha. The survey with a 5 item scale had an alpha of 0.78 (Nyblade et al., 2013).

Ethical Procedures

I obtained permission from the IRB of the 37 Military Hospital to carry out the research in the institution. Approval was also obtained from the Institutional Review Board (IRB) of Walden University (Appendix A). An informed consent form was given to all participants. Participants by filling out the survey form consented to participating in the research. Participants were recruited on voluntary basis. Participants were assured of a right to privacy and confidentiality. The research was fully anonymous therefore the identities of respondents were not known by me. Codes were used to identify survey responses.

Summary

The study was a cross sectional quantitative study. A pre constructed and tested survey tool was used for data collection. The 37 Military Hospital in Ghana was the healthcare facility where the study population took place. The study population was healthcare providers working in the healthcare facility in both the area of HIV care and nonHIV care. The scale of reliability of the survey had been analyzed using Cronbach's alpha. The survey with a 5-item scale had an alpha of 0.78. I reviewed and analyzed the results obtained from the survey tool in the next chapter.

Chapter 4: Results

Introduction

The purpose of this research was two-fold: (a) To use the SCT to determine the predictors of HIV-related stigma among healthcare providers, and (b) To explore the relationship between selected variables. There were two independent variables, personal attributes and environmental factors, based on the constructs of the SCT. The personal attributes were the opinions of healthcare workers of people living with HIV and the fear or worry of contracting HIV and willingness to care for key populations. The environmental factors were HIV policies of the healthcare facility and the infection prevention procedures and guidelines. The dependent variable was the stigmatizing behavior of healthcare workers. The research questions were developed based on the SCT framework using its constructs of behavior, personal attributes and environmental factors. Refer to figure 1.

Data Collection

The study design was a cross sectional study, with the study population being healthcare workers of the 37 Military Hospital in Accra, Ghana. Data was collected using the survey instrument developed by the Futures group. The 37 Military Hospital was a quasigovernmental institution that serves the military and civilians. It provides tertiary healthcare services. It was a specialist/teaching hospital providing training for house officers and also post graduate training. It was a UN Level 4 certified hospital. It had a

polyclinic department that provides primary health services. It was situated in the capital city of Accra in the Greater Accra Region of Ghana.

I made the survey available to voluntary participants online and physically through their mail boxes and at their common rooms. Two hundred (n = 200) emails were sent out online but only 76 persons responded. This gave a respondent rate of 38%. Two hundred survey forms were distributed physically of which 156 were filled out. This gave a respondent rate 70. 5%. Some participants received both the online survey and the questionnaires but where asked to fill either and not both. Majority of the participants however received only one form of the questionnaire that was either the physical survey or the online survey. This was to ensure that a non-respondent rate of 30% was taken care of. In all a total of 232 questionnaires were collected. Out of this number 18 were discarded because of incomplete filling out of the data or not meeting the eligibility criteria. These figures are shown in Table 1

Table 1

Response to Survey

Distribution type	# of surveys sent out	# of responses	Response %	Responses discarded
Online	200	76	38	0
Physical	200	156	70.5	18

The sections of the survey consisted of instrument designed to measure the dependent and independent variables as stated in the research questions and the hypothesis. The dependent variable was stigmatizing behavior of healthcare workers and

the independent variables were personal attributes of the healthcare workers and the hospital environment, which were hospital policies and infection control practices and policies. There was an extra module, which measured the independent and dependent variables for healthcare workers in antenatal care, prevention of mother to child transmission, labor and delivery wards.

I conducted Pearson's correlation and multiple linear regression on data collected using SPSS version 21. The results of this analysis have been presented in this chapter. In this Chapter I reviewed the descriptive and demographic characteristics of the sample, the results answering each of the three research questions and accepting or rejecting the null hypothesis.

Descriptive Statistics

Different categories of healthcare providers filled out the survey and the distribution is shown in the Table 2 and 3. The 'others' comprise accountants, cashiers, psychologist and administrators. Majority of respondents were nurses (108; 50.5%), followed by doctors (33; 15.4%) and nurse assistants (14; 6.5%).

Table 2

Category of Healthcare Providers

Provider type	Frequencies	Percentage	Cumulative %
Nurse assistant	14	6.5	6.5
Dentist	3	1.4	7.9
Dental tech.	3	1.4	9.3
Doctor	33	15.4	24.8
Lab. Tech	6	2.8	27.6
Disp. tech.	4	1.9	29.4
Medical records personnel	9	4.2	33.6
Physician assistant	7	3.3	36.9
Nurse	108	50.5	87.4
Pharmacist	6	2.8	90.2
Others	21	9.8	100.0

To help with further analysis category of healthcare workers, they were further group based on similarities of services rendered. This is shown in the table below.

Table 3

A Summary of the Descriptive Table showing the Scores of Occupation Statuses on Stigma

Provider type	*n*	Mean	*SD*
Nurse and nurse assistant	123	11.52	5.08
Physician assistant, doctor and dentist	43	9.74	3.69
Pharmacist and dispensing technician	10	6.20	4.61
Others	38	5.18	4.63

The table above shows that nurse and nurse assistant recorded mean was 11.52, *SD* = 5.08, physician assistant, doctor and dentist recorded mean was 9.74, *SD* = 3.69, pharmacist and dispensing technician had a mean of 6.20, *SD* = 4.61 and others including laboratory technicians, dental technicians, medical record personnel had a mean of 5.18 and *SD* = 4.63. The distribution per gender and working experience is shown in Table 4 and Table 5.

Table 4

Gender of Respondents

Gender	Number	Percent
Women	141	65.9%
Men	73	34.1%

Women formed majority of the respondents. This can be attributed to the fact that majority of the respondents were nurses who most invariably are women. The nurse population in healthcare facilities in the country are usually the highest.

Table 5

Year Working in Healthcare

Duration	Number	Percent %
3 – 9 years	112	52.3
10- 19 years	58	27.1
20 – 29 years	30	14.0
30 – 39 years	13	6.1
40- 49 years	1	0.5

Majority of respondents had worked between 3 to 9 years in healthcare. There was only one respondent who had worked for 40 years thus giving a 0.5% score in the category of 40 to 49 years of work experience.

Majority of participants had worked in clinics/hospitals /departments specializing in HIV care and treatment. Majority of respondents had also provided services to people living with HIV. The figures are shown in Table 6. Of the participants who provided services to people living with HIV, the number of persons provided with services within the last 12 months ranged from 1 to 2000.

Table 6

Respondents Who had Worked in Specialized HIV Units and Provided Care or Services to people living with HIV

Experiences	Yes	No	No response
Work experience in specialized HIV clinic/hospital/department	123, (57.4%)	91(42.6%)	0(0.0%)
Provided care/services to people living with HIV	112 (52.3%)	78(36.5%)	24(11.2%)

In the area of training received in relation to HIV related issues Table 7 shows the results.

Table 7

Topics in Which Participants Received Training

Topics of training	Yes	No
HIV stigma and discrimination	116, (56.6%)	85 (41.5%)
Infection control and universal precautions	155 (75.6%)	46 (22.4%)
Patients' informed consent, privacy and confidentiality	98 (47.8%)	103 (50.2%)
Key population stigma and discrimination	46 (22.4%)	155 (75.6%)

The area in which respondents had received the least training was in key population stigma and discrimination. The area where the majority of respondents had received training was in infection control and universal precautions. In service training of healthcare workers made it less likely to exhibit shame and blame among healthcare workers in Nigeria (Sekoni & Owoaje, 2013). Training may therefore confound the stigmatizing behavior of healthcare workers.

I also analysed frequencies of various stigmatizing behaviors. Enacted stigma demonstrated by healthcare workers in terms of preventing HIV infection is shown below in Table 8. Participants responded *not applicable* if their job responsibilities did not involve direct patient care.

Table 8

Enacted Stigmatizing Behavior shown by Healthcare Providers in Infection Control Practices

Enacted stigma	Not applicable	Yes	No	Missing value
Avoiding contact with people living with HIV	27 (12.6%)	23 (10.7%)	163 (76.2%)	1 (0.5%)
Wear double gloves when providing care to people living with HIV	32 (15.0%)	73 (34.1%)	108 (50.5%)	1 (0.05%)
Wearing gloves during all aspects of patient care	39 (18.2%)	99 (46.3%)	76 (35.5%)	-
Using special infection control measures that they would not use when taking care of non people living with HIV	33 (15.4%)	112 (52.3%)	66 (30.8%)	3 (1.4%)

Most respondents performed some infection control practices, which were not appropriate thus showing discrimination toward people living with HIV. Majority of the healthcare workers (76.2%) did not avoid people with HIV or thought to have HIV infection. Majority of respondents discriminated against people living with HIV or those thought to have HIV by using special infection control measures that they would not use when caring for patients without HIV (52.3%). Majority of healthcare workers however did not use double gloves (50.5%) as against (34.1%) who used double gloves during

patient care. More healthcare providers used gloves in all aspects of care (46.3%) than those who did not (35.5%).

The total number of participants who responded positively to having seen people living with HIV in the facility was 183. The results of participants' response to questions on observed stigmatizing behavior among healthcare providers in the facility are shown in Table 9. Only those who had seen people living with HIV in their facility responded to these questions. The denominator will therefore be 183.

Table 9

Observed Enacted Stigmatizing Behavior of HCW by Participants

Observed stigmatizing behavior	Never	Once or twice	Several times	Most of the time	Missing value
Unwillingness to care for people living with HIV	119 (65.0%)	52 (28.4%)	10 (5.5%)	2 (1.1%)	0
Providing poor quality service to people living with HIV	89 (48.6%)	68 (37.2%)	19 (10.4%)	6 (3.3%)	1(0.5%)
Talking badly about people living with HIV	83 (45.4%)	63 (34.4%)	30 (16.4%)	6 (3.3%)	1(0.5%)

Majority of participants (65.0%) had not encountered a HCW unwilling to care for a person living with HIV. This trend was also seen in the provision of poor quality

services to people living with HIV (48.6%) and talking badly about people living with HIV (45.4%). HCW were however seen as talking badly about people living with HIV several times (16.4%) as against on several occasions providing poor quality services (10.4%) and unwilling to care for people living with HIV (5.5%).

Table 10 shows enacted stigmatizing behavior of HCW working in antenatal clinics. The total number of responses for this area was 85. Figures in the table are computed with this denominator.

Table 10

Enacted Stigmatizing Behavior among HCW in Antenatal Clinics

Enacted stigma among antenatal HCW	Never	Once or twice	Several times	Most of the time	Missing Value
Performing HIV test without consent	63 (74.1%)	16 (18.8%)	5 (5.9%)	0 (0.0%)	1(1.2%)
Neglecting women in labor	79 (92.9%)	5 (5.9%)	1 (1.2%)	0 (0.0%)	0 (0.0%)
Using additional infection control procedures	18 (21.2%)	12 (14.1%)	28 (32.9%)	26 (30.6%)	1 (1.2%)
Disclosing the HIV status of pregnant women	63 (74.1%)	17 (20.0%)	4 (4.7%)	0 (0.0%)	1 (1.2%)

without their consent					
Treating pregnant women on condition they opt for family planning	42 (49.4%)	7 (8.2%)	16 (18.8%)	14 (16.5%)	6 (7.1%)

The majority of staff (92.9%) had never seen healthcare workers neglect a pregnant women living with HIV in labor, which was a good sign. The use of additional infection control measures by healthcare providers, most of the time was not in the majority was quite high (30.6%).

I would analyse and consider these various variables and their effects on the results in detail in Chapter 5.

Research Question 1

RQ1: How does personal attributes of healthcare professionals influence the tendency of healthcare professionals to stigmatize people living with HIV?

The hypothesis tested was:

$H_0$1: There is no reciprocal relationship between personal attributes of healthcare providers and the stigmatizing behavior of healthcare providers.

H_a1: The null hypothesis is false. There is a reciprocal relationship between personal attributes of healthcare providers and the stigmatizing behavior of healthcare workers.

To answer this research question and to test the hypothesis I conducted a linear regression and Pearson's correlation.

Personal attributes and environmental factors were considered as predictors of stigmatizing behavior of healthcare workers. The SCT predicted that these two variables predict the health behavior of persons and that there was a relationship between behavior, personal attributes and the environment in which the individual operated (Bandura, 1986).

The multiple linear regression analysis of personal attributes was significant in determining the predictor of stigmatizing behavior. Personal attributes significantly predicted stigmatizing behavior in healthcare workers ($p < 0.05$; $R^2 = 0.452$).

Table 11

Regression Analysis of Personal Attributes and Stigmatizing Behavior

Model	B	*SE*	β	*T*	Sig.
(Constant)	-8.413	1.735		-4.849	.000
PERSONAL	0.416	0.032	0.674	13.192	.000

Dependent variable : STIGMA

Using linear regression analysis, Table 11 shows the standardized coefficients beta which shows that the independent variable personal attributes which was measured using combined results from the opinions of HCW on people living HIV, worry and fear of getting infected and willingness to care for key populations, contributed 67.4% to

stigma. This was significant with a *p* value of less than < 0.05 (0.000).Personal attributes therefore significantly predicted stigmatizing behavior of healthcare workers.

There was a correlation between stigmatizing behavior and personal attributes with the Pearson's correlation coefficient value of 0.670. This showed a positive significant relationship between personal attributes and stigmatizing behavior, ($p < 0.05$). Personal attributes increases stigmatizing behavior.

Table 12

Correlation Analysis of Personal Attributes and Stigmatizing Behavior

Test	Variable	Stigma test value
Pearson's correlation	Personal attributes	0.670
Sig (1- tailed)	Personal attributes	0.000

Research Question 2

The second research question which was answered and hypothesis which was tested were:

RQ2: Does the working environment influence the personal attributes of the healthcare profession in relation to the tendency to stigmatize people living with HIV?

$H_0$2: There is no reciprocal relationship between personal attributes of healthcare providers and their working environment

H_a2: The null hypothesis is false. There is a reciprocal relationship between personal attributes of healthcare providers and their working environment.

The results from the Pearson's correlation analysis did not show any significant correlation between personal attributes and the environmental attributes. There was a negative correlation co efficient of -0.075. There was a negative relationship between environmental attributes and personal factors though not significant ($p = 0.137$). The null hypothesis was therefore accepted. According to the framework of the SCT there should be a correlation between environmental factors and personal attributes (Bandura, 1986). Bandura (1978) in his study on self systems showed that the extent to which personal and environments factors affect behavior and vice versa vary with different individuals and different circumstance. The environment in some instance will not exact much influence on behavior and personal attributes as is shown in this study.

Table 13

Correlation between Personal Attributes and Environmental Factors

Test	Variable	Environment test value
Pearson's correlation	Personal attributes	-0.075
Sig (1- tailed)	Personal attributes	0.137

Research Question 3

I used linear regression and Pearson's correlation to answer research question 3. The research question to be answered and the hypothesis to be tested were:

RQ3: Does the working environment influence the healthcare professionals' tendency to stigmatize people living with HIV?

The hypothesis tested was:

$H_0$3: There is no reciprocal relationship between environmental factors existing in the healthcare providers working environment and the stigmatizing behavior of healthcare providers.

Ha3: The null hypothesis is false. There is a reciprocal relationship between working environment of the healthcare providers and the stigmatizing behavior of healthcare providers.

Using linear regression analysis, environmental factors, which I measured were hospital policies on HIV and infection control practices and policies, and these contributed to only 5.4% to stigma. Therefore environmental attributes did not significantly predict stigmatizing behavior of healthcare workers ($p > 0.05$).

Table 14

Regression Analysis of Enviromental Attributes and Stigmatizing Behavior

Model	B	*SE*	β	*T*	Sig.

(Constant)	-8.413	1.735		-4.849	.000
Environmental factors	0.137	0.129	0.054	1.064	.288

Using Pearson's correlation analysis, no correlation was found between environmental factors and stigmatizing behavior.

Table 15

Correlation of Environmental Attributes and Stigmatizing Behavior

Test	Variable	Stigma Test Value
Pearson's correlation	Environmental factors	0.004
Sig (1- tailed)	Environmental factors	0.478

Other Findings

I conducted an omnibus regression analysis to control for other variable; gender, years of working and occupation. The findings are depicted below. These contribute to further research that may be conducted in the area of HIV-related stigma among healthcare workers in future.

Table 16

A Summary of ANOVA Results of Personal, Environmental, Gender, Occupation and Years of Practice as Predictors of Stigmatization

Model		Sum of Squares	*Df*	Mean Square	*F*	Sig.	R^2
	Regression	3298.368	5	659.674	50.535	.0000	.548
	Residual	2715.169	208	13.054			
	Total	6013.537	213				

a. Predictors: (Constant), YEARS, Gender, ENIVIRONMENT, PEROSNAL, JOB2
b. Dependent Variable: STIGMA

The omnibus regression table (Table 16) shows that the whole model had a significant influence on stigmatization [$F_{(5,208)} = 50.535$, $p < 0.05$]. When the predictors including gender, occupation and years of working were regressed on the dependent variable (stigmatization), it was found that they accounted for 55% of the variance which was statistically significant at 0.05 alpha level, $R^2 = 0.548$, $F_{(5,208)} = 50.535$, $p < 0.05$.

Table 17

Other Variables Predicting Stigma

Predictor	B	*SE*	B	T	*P*
PERSONAL	.374	.030	.606	12.302	.000
ENIVIRONMENT	.078	.120	.031	.651	.515
Gender	-.166	.578	-.015	-.288	.774
Occupation	-1.314	.244	-.283	-5.392	.000
Years of practice	.666	.266	.118	2.505	.013

Table 17 shows that personal factors, occupation, and years of practice all significantly predicted stigmatization. However, personal factors made the highest contribution to stigmatization [$\beta = 0.606$], followed by occupation [$\beta = -0.283$], and years of practice [$\beta = 0.118$], with a $p < 0.05$. Gender and environment had no significant impact on stigmatization.

To further determine which occupation significantly contributed to stigma, I conducted an ANOVA analysis. Table 18 below shows the results.

Table 18

A Summary of the Multiple Comparison Table Comparing Various Occupations on Stigmatization

Provider category	Group 1	Group 2	Group 3	Group4
1.Nurse and nurse assistant (Grp 1)	-	1.78	5.32*	6.34*
2.Physician assistant, doctor and dentist (Grp	-	-	3.54	4.56*

2)				
3.Pharmacist and dispensing technician (Grp 3)	-	-	-	1.02
4. Others (Grp 4)	-	-	-	-

The above table shows that nurse and nurse assistant significantly stigmatized more than pharmacist and dispensing technician and others. Similarly, physician assistant, doctor and dentist significantly stigmatized more than others. However, there was no significant difference between nurse and nurse assistant and physician assistant, doctor and dentist, and between pharmacist and dispensing technician and others in terms of stigmatization.

Summary

In this chapter I analyzed the results using descriptive methods, linear regression and Pearson's correlation to assess if there were any relationships between personal attributes, environmental factors and stigmatizing behavior of healthcare workers was presented. The results determined the predictors of stigmatizing behavior.

The key findings from the analysis showed that personal attributes of healthcare workers predicted stigmatizing behavior among the healthcare workers (Regression co efficient of 0.674). There was a significant relationship between personal attributes and

stigmatizing behavior ($p < 0.05$). There was however no significant relationship between environmental factors and stigmatizing behavior ($p > 0.05$). Environmental factors did not predict stigmatizing behavior among healthcare providers. There was no significant relationship between personal attributes and environmental factors ($p > 0.05$).

Other variables; occupation and years of practice significantly impacted on stigmatization, with β of -0.283 and 0.118 respectively, ($p < 0.05$). In Chapter 5 I discussed further the results and provided interpretation for the findings; I stated the limitations of the study, its implications for social change and gave recommendations for future research.

Chapter 5: Discussion, Conclusions, and Recommendations

Introduction

My interest in this study developed from my desire to find a theory-based approach for developing an intervention to address the issue of HIV stigma among healthcare providers. Health care facilities are places where people living with HIV expect to find no discrimination and the best of healthcare, making it very important that these healthcare facilities' staff do not discriminate against people living with HIV. However, healthcare facilities are actually places where people living with HIV tend to face discrimination and stigma.

I designed this study to determine the predictors of stigmatizing behavior among healthcare workers, which was the dependent variable used in the study. The two independent variables assessed in the study were the first being personal attributes which were depicted by the opinions of people living with HIV, fear or worry of getting infected with HIV and willingness to provide services to key populations; and the second was the environmental factors, which were defined by the HIV policies of the institution and the infection control guidelines and policies. The study also aimed to determine the relationship the independent variables and dependent variable had with each other based on the constructs of the SCT.

I carried out the study among healthcare workers at the 37 Military Hospital in Accra, Ghana. I obtained permission to conduct this study from the hospital's ethics committee to carry out the study. The study was anonymous, with no direct, physical contact between me and the study participants. There was also no contact information

shared on those who responded to the online survey. This enabled participants put their true perceptions and feelings across without any fear of being sanctioned.

The study design was a cross-sectional design, which allowed for a large number of participants to be reached while limiting cost and the time used. I selected this design was the most appropriate considering the limited funds available for the study and a similar approach used in similar studies (Feyissa et al., 2012; Li et al., 2007). A pretest survey developed by the Futures group was used as the tool for measurement (Health Policy Project, 2013). I answered three research questions and tested three hypotheses with their alternate hypotheses.

Interpretation of the Findings

The descriptive findings of the study showed that majority of the study participants were females and were nurses. In healthcare facilities in Ghana the majority of healthcare workers are nurses who are usually female. These findings are in accordance with the expected population of healthcare workers in public health facilities. The study conducted by Andrewin and Chien (2008) in Elize showed that females and nonreligious healthcare workers showed more stigmatizing behavior in attitudes of blame/judgment. In this study though I did not determine whether gender had an effect on stigmatizing behavior further analysis showed that gender did not significantly relate to stigma. Future studies to find out the role of gender in determining predictors of stigmatizing behavior among healthcare workers are worth noting. The main findings of this study consider healthcare workers as one unit and not divided into the various professional categories.

Participants had received trainings in HIV stigma and discrimination; Infection control and universal precaution; Patients' informed consent, privacy and confidentiality and key population stigma and discrimination. Those receiving training in key populations was the lowest and could therefore have an effect on their personal attributes. Various studies have shown training of healthcare workers in HIV made them less likely to exhibit the personal attributes of shame and blame (Andrewin & Chien, 2008; Feyissa et al., 2012; Sekoni & Owoaje, 2013), also showed that lack of knowledge about HIV, lack of knowledge on policies on stigma and discrimination had a relationship with stigma and discrimination against people living with HIV.

Most of the discriminating and stigmatizing behavior exhibited by HCW was to avoid the possibility of contracting HIV infection. HCW most of the times wore gloves during all aspects of patient care, using special infection control measures that they would not use when taking care of patients without HIV and using additional infection control procedures when attending to pregnant women living with HIV. This further showed that the fear of getting HIV infections leads to healthcare workers stigmatizing people living with HIV.

Personal Attributes as Predictors of HIV-Related Stigma

The findings of this study showed that personal attributes of opinions of healthcare workers of people living with HIV, fear of getting infected with HIV and the willingness to provide services to key populations predicted HIV-related stigmatizing behavior. The findings in the study also showed that there was a relationship between

these two variables. The null hypothesis was thus rejected. These results are confirmed by other studies.

Research conducted by Harapan et al. (2015) determined factors influencing discriminatory attitudes among healthcare workers in low HIV load regions showed a correlation of knowledge on transmission and prevention of HIV, value-driven stigma and overestimate risk to HIV transmission as predictors of discriminating attitudes. This goes to buttress the fact of fear of getting infected with HIV as a predictor of stigmatizing behavior. In a study carried out in Nigeria among pharmacist and pharmacy students researchers also showed that fear of getting infected and some opinions about people living with HIV contributed to discriminating attitudes the study population showed toward people living with HIV (Ubaka, Adibe, & Ukwe, 2014). Sayles et al. (2007) showed that the fear of getting HIV infection contributed to some stigmatizing behavior by healthcare workers such as wearing of double gloves during procedures and putting on mask to take blood pressure. Personal attributes such as beliefs and values also contributed significantly to HIV-related stigma (Strutterheim et al., 2012).

Several studies support the fact that personal factors predict stigmatizing behavior. Studies have shown that personal factors leading to the intent to discriminate are perception of risk of infection, misconceptions, inexperience working with people living with HIV, and negative opinions of people living with HIV (Ekstrand, Ramakrishna, Bharat, & Heylen, 2013; Kermode, Holmes, Langkhan, Thomas, & Gifford, 2005; Mahendra et al., 2007; Vyas, Patel, Shukla,& Matthews, 2010). Personal attributes being a precursor of behavior cannot be over emphasized. There is the need to

study personal attributes of healthcare workers in their various institutions and social settings to better understand what may possibly drive stigmatizing behavior in each particular circumstance. This would help in the developing of interventions at reducing HIV-related stigma. Personal attributes of healthcare workers, a construct of the SCT does predict behavior.

Relationship Between Environmental Factors and Personal Attributes

In relation to the two variables of environmental factors and personal attributes the findings of the study did not show any relationship between these two variables. There was a negative relationship between environmental attributes and personal factors though not significant. These findings thus confirm the hypothesis postulated that there is no relationship between the environmental factors and the personal attributes of healthcare workers. The null hypothesis is accepted. Studies in general on the impact of policy on personal attributes are very minimal. This is an area for further research.

Generally policies for an institution like a hospital are more likely to show the importance of certain behavior or experience that will ensure safety and a conducive working environment for all. In the SCT, Bandura (1986) postulated that there is a reciprocal effect of the three constructs behavior, environmental factors and personal attributes on each other. This has not been demonstrated in the findings of this study. Policies however can influence both personal and societal norms through different mechanisms. Policies can change personal or social norms/beliefs by first making people alter their behavior after that, they alter their beliefs to be in line with the new behavior (Kinzig et al., 2013).

There is however a significant lack of information about how policies may affect behaviors and beliefs to make an impact (House of Lords, 2011). It should however be noted that policies will not always change norms that already exist in that society or at personal levels, especially if they are ingrained in the society or in the individual and may conflict with the expected outcomes of the policy (Kinzig et al., 2013). I would assume in this study that if the personal attributes are deep seated in the individual and in society it may account for the inability of policies to have any effect on them. Researchers in some studies have shown that policies may be required to provide incentives to enable the individual perform the required behavior as compensation for perceived lost freedom (Schultz, Nolan, Cialdini, Goldstein, & Griskevicius, 2007). Findings from this study may form a platform for further studies into HIV policies and infection control policies and guidelines and their relationship to personal attributes such as fear of getting infected with HIV, opinions of people living with HIV and willingness to provide services to key populations.

Environmental Factors as Predictors of HIV-Related Stigma

The results from my analysis of the data from this study showed that the environmental factors, which were HIV policies and infection control guidelines and policies, did not significantly predict HIV-related stigma among healthcare workers. The findings therefore confirmed the null hypothesis that states that there is no relationship between environmental factors and stigmatizing behavior.There has been limited number of studies to find the relationship of environmental factors especially policies on behavior. Ecological models in general state that behaviors work at different levels and

these may impact also at different levels such as at the interpersonal or intrapersonal level and also on policy (Saelens, Sallis, & Frank, 2003). Generally it is assumed that policies are needed to change behavior for the good of the public. It can therefore be assumed that HIV policies in the healthcare facility will ensure a stigma free environment and an environment where infection control is ensured and maintained. The results from this study do not show that. These policies are said to make the most impact if they activate a long term change in personal attributes such as beliefs and norms or are able to change behavior to one that is acceptable to the wider public or ensure the good of the wider public (Kinzig et al., 2013). This was a cross sectional study and I did not look at the effects of policy on long term change in personal attributes. The SCT postulated that environmental factors act on both personal attributes and behavior. This has however been refuted by the findings of this study.

Institutional policy and guidelines for infection control show the institutions commitment to improving management and care of people living with HIV. It may not necessary support the healthcare provider. The SCT demonstrated an individual's ability to take an action or perform a particular behavior was influenced by the external support received by society (Diloro, Shafer, Letz, Henry, & Schomer, 2006). In this study by Diloro et al. (2006) the external support could be seen in the policies of the institution and its efforts of supporting infection control, therefore if the healthcare workers did not consider it as support to their ability to perform an action, it would not influence the particular action.

However in a study to understand how policy affected condom use among female sex workers together with other factors researchers found that policies ensuring availability of condoms improved use (Urada, Morisky, Pimentel-Simbulan, Silverman, & Strathdee, 2012). This underscores the importance of having an enabling environment by way of policy. The policies looked at in this study as with most policies in HIV management would have to create a supportive environment for the care of people living with HIV but may not necessary provide a supportive environment to reduce HIV-related stigma. The question *I will get in trouble at work if I discriminate against living patients with HIV* does not show support or give guidance in behaving wrongly but rather shows a punitive outcome in behaving unacceptably. This may therefore not ensure the required behavior is exhibited so far as the individual may get away with it. Policy instruments which opted for penalties or incentives, or were regulatory, may be necessary to achieve a change in behavior (House of Lords, 2011). There is minimal information on how policies may influence behaviors and norms to result in positive change (House of Lords, 2011). These policies may end up having a boomerang effect. This result therefore provides some information for further studies to determine how policies affect stigmatizing behavior of healthcare works. This may further support policy formulations in regards to HIV management.

Other Variables

Occupation and years of practice significantly impacted on stigmatizing behavior. Though these do not form the main research questions they are worth noting. In my study findings showed that nurses and nurse assistants tend to stigmatize more that the group

comprising pharmacists and dispensing technicians. Doctors/dentists and physician assistants tended to stigmatize more than the group of others comprising laboratory technicians, dental technicians, medical record persons and others. There was no significant difference in the stigmatizing levels of the group comprising nurses and nurse assistants and the group of doctors, dentists and physician assistants. Andrewin and Chien (2008) showed that nurses were more likely to give differential care to people living with HIV than were doctors, whilst doctors were more likely to test patients without consent, notify relatives and partners of a patient HIV status without consent. This could be due to their job descriptions. Nurses are responsible for the direct care of patients whilst doctors' requests for the laboratory test. Roger et al. (2014) also showed that the type of staff influenced the level of stigma they exhibited.

Though the years of practice was not a variable considered for predictability, further analysis indicated it did. The study sample had more participants having worked between 0 – 9 years this may have impacted the significance. An ANOVA test however did not show any significant relationship between stigma and years of practice. This though may be an artifact of the analysis. The regression analysis thus could not determine whether more or less years influenced the stigmatizing behavior of the healthcare worker. A study by Li et al. (2007) however showed a relation between stigma and age of the healthcare provider.

Limitations

There are some limitations that need to be considered in interpreting the results of this study. The study design I used in this research was a cross sectional design. It

therefore made it impossible to draw conclusions about cause and effect and can only state if there are associations. The generalization of these findings is limited to the type of healthcare facility in which this study took place. In Ghana there are different levels of healthcare facilities, therefore making it difficult to generalize the findings to all healthcare facilities at different levels in Ghana. The responses to the survey instrument were self-reported and this may make the findings subject to social desirability biases. The details of policies of the institution were not looked at thus an informed analysis of the effect of the policies on behavior and personal attributes cannot be stated. Further studies are therefore required to look into details of how policies interact with stigmatizing behavior of healthcare workers and personal attributes. The survey instrument was designed to measure HIV-related stigma among healthcare workers and not specifically to measure stigma in relation to the constructs of the SCT. This may result in some limitation in the measurement of the constructs although information was available for all the constructs that is behavior, personal attributes and environmental factors.

Implications for Social Change

The findings from this study are to support a positive social change in the area of stigma toward people living with HIV. It is contributing to efforts to reduce HIV-related stigma among healthcare workers toward people living with HIV. HIV-related stigma has a negative impact on the quality of life and care for people living with HIV. The findings of this study have hopefully led to a clearer understanding of the various constructs that are associated with HIV-related stigma. This in turn will help inform the development of

interventions to help address HIV-related stigma in healthcare workers. The healthcare facility is a place where people living with HIV should obtain the best possible care and treatment under whatever prevailing circumstances. Several interventions have been developed to help reduce HIV-related stigma but it still persists. Efforts to tackle the issue of HIV-related stigma have been constrained by the complexity of stigma which has deep bearings on the society.

Though the findings of this study suggest that the constructs of the SCT cannot fully explain and predict stigmatizing behavior the personal attributes studied here are essential when dealing with HIV-related stigma. The policy environment from the study does not predict HIV-related stigma among healthcare workers but the constructs of the SCT may be researched again with other environments such as the social and physical work environment to further strengthen a positive change.There has been relatively limited research in this area and therefore more research needs to be conducted on how the policy environment affects behavior to better understand the relationship between policy environment and personal attributes and stigmatizing behavior.The use of personal attributes to predict stigmatizing behavior can be a springboard or catalyst in the development of interventions to address HIV-related stigma among healthcare workers.

Though this study is a start for the use of the SCT and other health behavior theories to address stigmatizing behavior among healthcare workers it has also added to the vast literature on HIV-related stigma. Though the policy environment in this study did not predict stigmatizing behavior it is a stepping stone for further study in the area of HIV policy development. There may be positive change if healthcare workers have discussion

and dialogues to clarify their values in relation to HIV transmissions, opinions of people living with HIV and working with key populations, and fear of getting infected in the course of their work. Social change will be realized when the right interventions are developed to address healthcare workers personal attributes; their opinions of people living with HIV, fear/worry of getting infected and their willingness to provide services to key populations. When the interventions developed result in reduced stigma among healthcare workers toward people living with HIV and in turn increase the willingness of healthcare workers to engage with people living with HIV and provide quality service to them. Values of healthcare workers in terms of care of key populations will need to be clarified. An intervention initially in the area of value clarification of healthcare providers is important for social change.

There needs to be discussions between policy makers in the health institutions, healthcare workers and people living with HIV. Interventions to reduce HIV-related stigma should pay more attention to the personal attributes of the healthcare worker.

The results also demonstrate the need to further research into health behavior models that may be used to address HIV-related stigma among healthcare workers, HIV policies and their effect of personal attributes and stigmatizing behavior.

Recommendations

To contribute to reducing HIV-related stigma, the results of the study provided information which has informed my recommendations. First since personal attributes significantly predict stigmatizing behavior, values of healthcare workers need to be clarified through their training in which ever profession. The individual values and

beliefs need to be reflected upon during the professional trainings and clarifications made to the ethical performance of their professional duties. Secondly the issue of HIV policy should be studied in detail based on the social environment in which the policy is to be implemented and based on personal opinions of people living with HIV, fear of getting infected and the willingness to manage key populations. Finally a similar study should be conducted in other parts of the country and at other levels of service delivery, to explore these variables in relation to HIV-related stigma.

Conclusion

In this study I determined the predictors of stigmatizing behavior among healthcare workers and the relationship of the constructs of the SCT, which are personal attributes, environmental factors and behavior. The two independent variables looked at in the study were personal attributes which were depicted by the opinions of people living with HIV , fear or worry of getting infected with HIV; and the environmental factors which were the HIV policies of the institution and the infection control guidelines and policies. In the study I also determined the relationship the independent variables and dependent variable had with each other based on the constructs of SCT.

Findings from the study revealed that personal attributes predicted stigmatizing behavior and these two constructs had a significant relationship. Environmental factors however did not predict stigmatizing behavior and did not have a significant relationship with behavior, likewise environmental factors and personal attributes. The findings did not wholly confirm the use constructs of the SCT to predict HIV-related stigmatizing behavior among healthcare workers. The findings though can have a positive impact on

social change by reinforcing the need to address personal attributes in the development of interventions to reduce HIV-related stigma. It also opens the direction for further research in HIV policy in relation to HIV-related stigma. Further research needs to be conducted on the policy environment in relation to stigmatizing behavior and also the relationship with personal attributes of healthcare workers. Further studies also in other environments on behavior such as the social environment and the physical environment of the work place should be examined.

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Appendix A: IRB Approval Letter

Dear Ms. Dawson-Amoah,

This email is to notify you that the Institutional Review Board (IRB) has approved your application for the study entitled, "Using the Social Cognitive theory to identify determinants of HIV stigma among Healthcare workers in Ghana."

Your approval # is 02-17-15-0147893. You will need to reference this number in your dissertation and in any future funding or publication submissions. Also attached to this e-mail is the IRB approved consent form. Please note, if this is already in an on-line format, you will need to update that consent document to include the IRB approval number and expiration date.

Your IRB approval expires on February 16, 2016. One month before this expiration date, you will be sent a Continuing Review Form, which must be submitted if you wish to collect data beyond the approval expiration date.

Your IRB approval is contingent upon your adherence to the exact procedures described in the final version of the IRB application document that has been submitted as of this date. This includes maintaining your current status with the university. Your IRB approval is only valid while you are an actively enrolled student at Walden University. If you need to take a leave of absence or are otherwise unable to remain actively enrolled, your IRB approval is suspended. Absolutely NO participant recruitment or data collection may occur while a student is not actively enrolled.

If you need to make any changes to your research staff or procedures, you must obtain IRB approval by submitting the IRB Request for Change in Procedures Form. You will receive confirmation with a status update of the request within 1 week of submitting the change request form and are not permitted to implement changes prior to receiving approval. Please note that Walden University does not accept responsibility or liability for research activities conducted without the IRB's approval, and the University will not accept or grant credit for student work that fails to comply with the policies and procedures related to ethical standards in research.

When you submitted your IRB application, you made a commitment to communicate both discrete adverse events and general problems to the IRB within 1 week of their occurrence/realization. Failure to do so may result in invalidation of data, loss of academic credit, and/or loss of legal protections otherwise available to the researcher.

Both the Adverse Event Reporting form and Request for Change in Procedures form can be obtained at the IRB section of the Walden website: http://.....Researchers are expected to keep detailed records of their research activities (i.e., participant log sheets, completed consent forms, etc.) for the same period of time they retain the original data. If, in the future, you require copies of the originally submitted IRB materials, you may request them from Institutional Review Board.

Both students and faculty are invited to provide feedback on this IRB experience at the link below: http://...Sincerely,

Libby Munson

Appendix B: Consent Form

CONSENT FORM

You are invited to take part in a research study of determining the predictors of HIV-related stigmatization among healthcare providers using the Social Cognitive Theory (SCT).

The study will determine the environmental and personal factors that influence behavior among healthcare providers toward People living with HIV. These personal factors are opinions of PLHIV, fear of contracting HIV and willingness to treating key populations. The environmental factors are HIV policies of the hospital and infection control guides.

This form is part of a process called "informed consent" to allow you to understand this study before deciding whether to take part.

The researcher is therefore inviting healthcare professionals working in the 37 Military Hospital, a healthcare facility in the Greater Accra region, with at least 3 years working experience to be part of this study.

This study is being conducted by Catherine Dawson-Amoah, a doctoral student at Walden University in the USA as her doctoral dissertation.

Background Information:

The purpose of this study is to determine predictors of HIV-related stigmatizing behavior using a health behavior theory. The reciprocal effect of the environment and personal factors on behavior is to be determined.

Procedures:

If you agree to be in this study, you will be asked to:

- To fill an electronic or paper survey. This will take about 20 minutes.
- This survey will be filled only once.

Voluntary Nature of the Study:

This study is voluntary. Your decision of whether or not you choose to be in the study will be respected.

If you decide to join the study now, you can still change your mind later. You may stop at any time. This will not attract any penalty.

Risks and Benefits of Being in the Study:

Being in this study would not pose risk to your safety or wellbeing. There is no link to the respondent in any way so information given can be traced back to respondent. There may be no direct benefit to you but it is hoped that the results from this study will form the basis for the development of interventions to reduce HIV-related stigma among healthcare providers.

Compensation:

There will be no compensation for participating in this research.

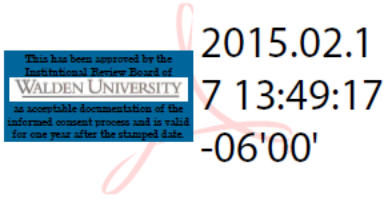
Privacy:

Any information you provide will be kept anonymous. The researcher will not be able to link your responses to you. Data will be kept secure under lock and key. Data will be kept for a period of at least 5 years, as required by the university.

1 of 2

Contacts and Questions:
You may ask any questions you have now. Or if you have questions later, you may contact the researcher via email at xxxx.xxxx@xxxx.edu. You may contact Dr Leilani Endicott, she is the Walden University Representative if you would like to talk privately about your rights as a participant. Her phone number is +1-xxx xxx xxxx. Walden University's approval number for this study is 02-17-15-0147893 and it expires February 16, 2016.
Please keep this consent form for your records.
Statement of Consent:
I have read the above information and I feel I understand the study well enough to make a decision about my involvement.
By completing the online survey or paper survey I consent to participating in this study and agreeing to the terms described above.
(Signatures are not required in order to ensure anonymity).

2 of 2



Appendix C: Permission to use survey

Fagan, Thomas May 21 (3 days ago)

to me

Dear Catherine,

We are happy to have you use any of the Health Policy Project's materials, provided that appropriate citation is included. We are glad that you have found our tools useful and wish you the best of luck with your dissertation.

Kindly,

Tom Fagan

From: Catherine Dawson-Amoah
Sent: Monday, May 19, 2014 12:29 PM
To: FG - PolicyInfo
Subject: Request for use of questionnaire

Catherine Dawson-Amoah May 19 (5 days ago)

to policyinfo

Dear Sir / Madame,

I am Catherine Dawson-Amoah a PhD student in Public Health at the Walden University. My dissertation is to use the Social Cognitive Theory to determine the predictors of HIV related stigma among health care professionals in Ghana.

I would like to use the "Measuring HIV stigma and discrimination among health facility staff: Standardized questionnaire" for this purpose.

I hope this request will be granted to enable me undertake the research. Please find attached a letter to that effect.

Thank you.

Appendix D: Survey

USING THE SOCIAL COGNITIVE THEORY TO IDENTIFY DETERMINANTS OF HIV STIGMA AMONG HEALTHCARE WORKERS IN GHANA

SECTION 1: BACKGROUND INFORMATION First I will ask about your background.

1. How old were you at your last birthday? years

2. What is your sex? ☐Female ☐ Male

3. What is your current job?

☐Accountant ☐ Cashier ☐ Cleaning Staff ☐ Nurse Assistant ☐ Dentist ☐ Dental Technician/Hygienist ☐ Doctor ☐ Laboratory Technician/Technologist ☐ Dispensing Technologist/Technician ☐ Medical Records Personnel ☐ Physician Assistant ☐ Nurse ☐ Pharmacist ☐ Receptionist ☐ Radiology Technician/Technologist ☐ Phlebotomist ☐ Other:

4. How many years have you been working in healthcare? years

5. Have you ever worked in a clinic/hospital/department that specialized in HIV care and treatment?

☐ Yes ☐ No

6. In the past 12 months, approximately how many HIV-positive patients did you provide with care or services?

7. Did you ever receive training in the following subjects? (Check all that apply.)

a. HIV stigma and discrimination ☐

b. Infection control and universal precautions ☐ (including post-exposure prophylaxis)

c. Patients' informed consent, privacy, and confidentiality ☐

d. Key population stigma and discrimination ☐

SECTION 2: INFECTION CONTROL Now I will ask you about infection concerns in your health facility.

8. How worried would you be about getting HIV if you did the following? If any of the following is not one of your job responsibilities, please select "Not applicable."

i. Touched the clothing or bedding of a patient living with HIV

☐ Not worried ☐ A little worried ☐ Worried ☐ Very worried ☐ Not applicable

ii. Dressed the wounds of a patient living with HIV

☐ Not worried ☐ A little worried ☐ Worried ☐ Very worried ☐ Not applicable

iii. Drew blood from a patient living with HIV

☐ Not worried ☐ A little worried ☐ Worried ☐ Very worried ☐ Not applicable

iv. Took the temperature of a patient living with HIV

☐ Not worried ☐ A little worried ☐ Worried ☐ Very worried ☐ Not applicable

9. Do you typically use any of the following measures when providing care or services for a patient living with HIV?

a. Avoid physical contact

☐ Yes ☐ No ☐Not applicable

b. Wear double gloves

☐ Yes ☐ No ☐Not applicable

c. Wear gloves during all aspects of the patient's care

☐ Yes ☐ No ☐Not applicable

d. Use any special infection-control measures with patients living with HIV that you do not use with other patients

☐ Yes ☐ No ☐Not applicable

SECTION 3: HEALTH FACILITY ENVIRONMENT Now I will ask about practices in your health facility and your experiences working in a facility that provides care to people living with HIV.

10. In the past 12 months have you seen a person living with HIV in your health facility?

☐Yes go to question 11

☐ No skip to question 12

☐Don't know skip to question 12

11. In the past 12 months, how often have you observed the following in your health facility?

a. Healthcare workers unwilling to care for a patient living with or thought to be living with HIV

☐ Never ☐ Once or twice ☐ Several times ☐ Most of the time

b. Healthcare workers providing poorer quality of care to a patient living with or thought to be living with HIV than to other patients

☐ Never ☐ Once or twice ☐ Several times ☐ Most of the time

c. Healthcare workers talking badly about people living with or thought to be living with HIV

☐ Never ☐ Once or twice ☐ Several times ☐ Most of the time

12. How worried are you about:

i. People talking badly about you because you care for patients living with HIV?

☐ Not worried ☐ A little worried ☐ Worried ☐ Very worried

ii. Friends and family avoiding you because you care for patients living with HIV?

☐ Not worried ☐ A little worried ☐ Worried ☐ Very worried

iii. Colleagues avoiding you because of your work caring for patients living with HIV?

☐ Not worried ☐ A little worried ☐ Worried ☐ Very worried

13. How hesitant are healthcare workers in this facility to work alongside a co-worker living with HIV, regardless of their duties?

☐ Not hesitant ☐ A little hesitant ☐Somewhat hesitant ☐ Very hesitant

SECTION 4: HEALTH FACILITY POLICIES. Now I am going to ask about the institutional policy and work environment in your facility.

14. In my facility it is not acceptable to test a patient for HIV without their knowledge.

☐ Strongly Agree ☐ Agree ☐ Disagree ☐ Strongly Disagree

15. I will get in trouble at work if I discriminate against patients living with HIV.

☐ Yes ☐ No ☐ Don't Know

16. Do you strongly agree, agree, disagree, or strongly disagree with the following statements?

a. There are adequate supplies in my health facility that reduce my risk of becoming infected with HIV.

☐ Strongly Agree ☐ Agree ☐ Disagree ☐ Strongly Disagree

b. There are standardized procedures/protocols in my health facility that reduce my risk of becoming infected with HIV.

☐ Strongly Agree ☐ Agree ☐ Disagree ☐ Strongly Disagree

17. My health facility has written guidelines to protect patients living with HIV from discrimination.

☐ Yes ☐ No ☐ Don't Know

SECTION 5: OPINIONS ABOUT PEOPLE LIVING WITH HIV Now I am going to ask about opinions related to people living with HIV.

18. Do you strongly agree, agree, disagree, or strongly disagree with the following statements?

a. Most people living with HIV do not care if they infect other people.

☐ Strongly Agree ☐ Agree ☐ Disagree ☐ Strongly Disagree

b. People living with HIV should feel ashamed of themselves.

☐ Strongly Agree ☐ Agree ☐ Disagree ☐ Strongly Disagree

c. Most people living with HIV have had many sexual partners.

☐ Strongly Agree ☐ Agree ☐ Disagree ☐ Strongly Disagree

d. People get infected with HIV because they engage in irresponsible behaviors.

☐ Strongly Agree ☐ Agree ☐ Disagree ☐ Strongly Disagree

e. HIV is punishment for bad behavior.

☐ Strongly Agree ☐ Agree ☐ Disagree ☐ Strongly Disagree

19. Women living with HIV should be allowed to have babies if they wish.

☐ Strongly Agree ☐ Agree ☐ Disagree ☐ Strongly Disagree

20. Please tell us if you strongly agree, agree, disagree, or strongly disagree with the following statement:

a. If I had a choice, I would prefer not to provide services to people who inject illegal drugs.

☐ Strongly Agree go to question 20b

☐ Agree go to question 20b

☐ Disagree skip to question 21

☐ Strongly Disagree skip to question 21

b. I prefer not to provide services to people who inject illegal drugs because (check all reasons that apply):

i. They put me at higher risk for disease. ☐ Agree ☐ Disagree

ii. This group engages in immoral behavior. ☐ Agree ☐ Disagree

iii. I have not received training to work with this group. ☐ Agree ☐ Disagree

21. Please tell us if you strongly agree, agree, disagree, or strongly disagree with the following statement:

a. If I had a choice, I would prefer not to provide services to men who have sex with men.

☐ Strongly Agree go to question 21b

☐ Agree go to question 21b

☐ Disagree skip to question 22

☐ Strongly Disagree skip to question 22

b. I prefer not to provide services to men who have sex with men because (check all reasons that apply):

i. They put me at higher risk for disease.

☐ Agree ☐ Disagree

ii. This group engages in immoral behavior.

☐ Agree ☐ Disagree

iii. I have not received training to work with this group.

☐ Agree ☐ Disagree

22. Please tell us if you strongly agree, agree, disagree, or strongly disagree with the following statement:

a. If I had a choice, I would prefer not to provide services to sex workers (specify: male or female or both, depending on context).

☐ Strongly Agree go to question 22b

☐ Agree go to question 22b

☐ Disagree skip to question 23

☐ Strongly Disagree skip to question 23

b. I prefer not to provide services to sex workers because (check all reasons that apply):

i. They put me at higher risk for disease.

☐ Agree ☐ Disagree

ii. This group engages in immoral behavior.

☐ Agree ☐ Disagree
iii. I have not received training to work with this group.
☐ Agree ☐ Disagree

MODULE 1: ANTENATAL CARE, PREVENTION OF MOTHER-TO-CHILD TRANSMISSION, AND LABOR AND DELIVERY WARDS The following section is to be completed by service providers who work with pregnant women in antenatal care, prevention of mother-to-child transmission of HIV, and in labor and delivery rooms. If you do not work in these areas, you have completed the questionnaire.

23. How worried are you about assisting in labor and delivery if the woman is living with HIV?
☐ Not worried ☐ A little worried ☐ Worried ☐ Very worried ☐ Not applicable
24. In the past 12 months, how often have you observed other healthcare providers:
a) Performing an HIV test on a pregnant woman without her informed consent?
☐ Never ☐ Once or twice ☐ Several times ☐ Most of the time
b) Neglecting a woman living with HIV during labor and delivery because of her HIV status?
☐ Never ☐ Once or twice ☐ Several times ☐ Most of the time
c) Using additional infection-control procedures (e.g., double gloves) with a pregnant woman living with HIV during labor and delivery because of her HIV status?
☐ Never ☐ Once or twice ☐ Several times ☐ Most of the time
d) Disclosing the status of a pregnant woman living with HIV to others without her consent?
☐ Never ☐ Once or twice ☐ Several times ☐ Most of the time
e) Making HIV treatment for a woman living with HIV conditional on her use of family planning methods?
☐ Never ☐ Once or twice ☐ Several times ☐ Most of the time

25. Do you strongly agree, agree, disagree, or strongly disagree with the following statements?
a) If a pregnant woman is HIV positive, her family has a right to know.
☐ Strongly Agree ☐ Agree ☐ Disagree ☐ Strongly Disagree
b) Pregnant women who refuse HIV testing are irresponsible.
☐ Strongly Agree ☐ Agree ☐ Disagree ☐ Strongly Disagree
c) Women living with HIV should not get pregnant if they already have children.
☐ Strongly Agree ☐ Agree ☐ Disagree ☐ Strongly Disagree
d) It can be appropriate to sterilize a woman living with HIV, even if this is not her choice.
☐ Strongly Agree ☐ Agree ☐ Disagree ☐ Strongly Disagree