

Acute Care Providers' Stigmatization of People Living with HIV

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Table of Contents

Abstract	4
Background and Significance.....	6
Needs Assessment.....	9
Problem Statement.....	9
Clinical Question	10
Aims and Objectives	10
Review of Literature.....	11
Search Strategy	11
Stigma in Healthcare.....	11
Forms of Stigma	12
Emotional Reactions	13
Fear of HIV	13
Provider knowledge of HIV.....	14
Educational Interventions to Decrease Stigma	14
Conclusion.....	15
Theoretical Framework	15
Methodology	17
Project Design	17
Setting.....	17
Study Population	18
Project Recruitment.....	18
Consent.....	18
Risks and Harms.....	19
Subject Costs and Compensation.....	19
Study Intervention.....	19
Outcomes.....	19
Data Collection Tools	20
Project Timeline	21
Resources Needed/Economic Considerations	22
Evaluation Plan.....	22
Data Analysis Plan.....	22
Data Maintenance/Security	23
Results.....	23
Demographics.....	23
HPP HIV Stigma and Discrimination Results	24
Knowledge of HIV	27
Discussion of Findings.....	28
Forms of Stigma	29
Provider knowledge of HIV.....	29
Self Reported Fear of HIV	30
Facilitators and Barriers	31

Unintended Consequences	31
Limitations	32
Evaluation.....	32
Implications	33
Economic Implications.....	33
Policy Implications	34
Quality and Safety.....	36
Clinical Practice.....	37
Sustainability	38
Dissemination	39
Summary	40
References	41
Appendix A: Table of Evidence	44
Appendix B: Framework for Action Diagram	63
Appendix C: HIV-KQ-18	64
Appendix D: HPP HIV Stigma and Discrimination Standardized Questionnaire	66
Appendix E: Recruitment Flyer	69
Appendix F: Definitions from the Health Policy Project (Jain, Carr, & Nyblade, 2015). ...	70
Appendix F: Consent.....	71
Appendix G: Evaluation Questions.....	75

Abstract

The HIV epidemic is in its fourth decade, and stigmatization of people living with HIV (PLWH) remains persistent in healthcare settings. Stigmatization of those with HIV often is driven by a lack of knowledge about the disease, transmission, and poor perceptions of PLWH. Educational strategies to address healthcare providers' lack of knowledge and negative perceptions may decrease HIV stigma. This project focused on the staff of a 24-bed neurosurgical and trauma ICU at a large metropolitan hospital. A total of eighteen staff members participated in an educational session, consisting of a short educational module about HIV. Group participants' knowledge about HIV was assessed pre- and post-intervention using the HIV- Knowledge questionnaire. In addition, HIV stigmatizing behaviors and attitudes of the entire ICU staff were assessed before and one month after the educational sessions using the Health Policy Project (HPP) HIV Stigma and Discrimination Questionnaire. The results of this project demonstrated that healthcare providers lacked knowledge about HIV, with a mean score of 86% on the HIV Knowledge Questionnaire-18 (HIV-KQ18). Stigmatization and discrimination were evident among healthcare providers. Results of the anonymous Health Policy Project (HPP) HIV Stigma and Discrimination survey given before the educational module revealed that 46.5% ($n=43$) of participants reported observing healthcare workers speak badly about PLWH and 27.9% ($n=12$) of participants reported seeing other providers render poorer treatment to PLWH. Post educational questionnaire scores improved with a mean score of 100%. Results of the post educational test scores improved with a mean score of 100%.

Keywords: HIV, stigmatization of HIV in healthcare settings, barriers to HIV care

Acute Care Providers' Stigmatization of People Living with HIV

A problematic issue in healthcare is the negative perception of certain diagnoses (Hill & Evans, 2016). Many diagnoses have a social definition associated with their respective causes and symptoms. Together, negative perceptions and social definitions contribute to stigma and discrimination. Stigma is defined as a social process of devaluing persons based on differences associated with negative connotations; the process of stigma leads to separation and discrimination (Jain, Carr, & Nyblade, 2015). Discrimination is defined as the unfair and unjust treatment of an individual based on a real or perceived status or attribute (Jain, Carr, & Nyblade, 2015). Interactions between people living with HIV (PLWH) and healthcare providers that appear to be clinically discriminatory can have serious negative effects on PLWH (Batey et al., Hill & Evans, Sutterheim et al., Mak et al., Varas-Diaz et al.). Clinical discrimination is the difference in the way care is performed or delivered based on the diagnosis.

Mental illness, cancer, substance abuse, and HIV are examples of stigmatized diseases. Stigma has a larger negative impact on PLWH compared to people living with any other disease (Hill & Evans, 2016). PLWH face stigma and discrimination in the community, personal, and family settings (Hill & Evans; Sutterheim et al.; Mak et al.). Often, PLWH are associated with behaviors perceived to be immoral or violating social norms such as homosexuality, intravenous drug use, and frequent sexual encounters (Sutterheim et al. 2014). These perceptions contribute to the stigmatization of HIV and the discrimination PLWH encounter in various settings. The negative effects of stigma include barriers to prevention, detection, and treatment (Batey et al., Hill & Evans, Sutterheim et al., Mak et al., Varas-Diaz et al.).

The diagnosis of HIV often generates fear because of the thousands of people who suffered when the first cases of HIV and AIDS erupted in the early 1980s in the United States

(Hill & Evans, 2016). Despite advances in antiretroviral treatment (ART) that shifted this once terminal disease to a chronic illness, stigma still exists across various settings, including healthcare settings (Batey et al., 2016). Multiple organizations have started initiatives to address stigma in healthcare and the community due to the negative impact of an HIV diagnosis. The Centers for Disease Control (CDC) Act Against Aids initiative has a *Let's Stop HIV Together* campaign to raise awareness and reduce the stigma associated with HIV. The Joint United Nations Program on HIV/AIDS (UNAIDS) and the World Health Organization (WHO) also have major campaigns to end HIV stigma in healthcare (AVERT, 2018). This proposal describes a project that aims to reduce stigma and increase knowledge about HIV care in acute healthcare providers by implementing an educational intervention about HIV and assessing changes in the perceptions of acute healthcare providers that lead to stigma.

Background and Significance

Since the first cases of HIV in the United States in the 1980s, negative perceptions were associated with the disease (Hill & Evans, 2016). These negative perceptions were a result of a lack of knowledge, understanding, and lack of treatment options. People became fearful of HIV. Thus the stigma that is associated with HIV today was established and persists (Hill & Evans, 2016). Stigma is defined by the Health Policy Project (HPP) as a social process of devaluing persons that begins by attributing a negative connotation or value to a person's differences, leading to distancing and separation of the person, ultimately culminating in discrimination (Jain, Carr, & Nyblade, 2015). In a clinical setting, discrimination is different from the discrimination encountered in the community. Clinical discrimination is a difference in the way care is performed or delivered. An example of discrimination in the clinical setting is the use of extra

unnecessary personal protective equipment when caring for PLWH, a practice that may reflect stigmatizing behavior.

Stigma from healthcare providers has a great impact on PLWH because they often face social stigma in the setting of their community and families. In some cases, PLWH have been abandoned by their friends and families (Zukoski & Thorburn, 2009). As a result, PLWH become afraid of being stigmatized when seeking care, getting medications, adhering to treatment regimens, and following up with care. This fear of being stigmatized negatively affects physiological and psychological health, thereby decreasing the quality of life (Stringer et al., 2016).

Stigma is evident in healthcare settings (Zurkoski & Thorburn, 2009; Sutterheim et al., 2014; Shuster et al., 2004; Nyblade, Stangl, Weiss, & Ashurn, 2009). Providers have refused care to PLWH, have felt nervous treating them, and have admitted providing less care to PLWH (Zukoski & Thorburn, 2009). Many PLWH have described how difficult it was to simultaneously deal with discrimination in the healthcare setting, handle a negative experience with a provider, and advocate for healthcare (Zukoski & Thorburn, 2009). It is difficult for PLWH to continue receiving healthcare because the experience of stigma and discrimination has an emotional impact and creates a negative view of the future.

Many international organizations, as well as the United States government, have initiatives to address HIV stigma. In 2010 the United States government released the National HIV/AIDS strategy with the vision that:

The United States will become a place where new HIV infections are rare, and when they do occur, every person, regardless of age, gender, race/ethnicity, sexual orientation, gender identity, or socio-economic circumstance, will have unfettered access to high

quality, life-extending care, *free from stigma and discrimination* (National HIV/AIDS Strategy for the United States, 2010).

In 2015 the United States government released an update to the National HIV/AIDS Strategy, noting that more efforts need to be placed on stigma and discrimination. The update continues to emphasize that HIV stigma in service areas is still extensive and continues to negatively impact access to care as well as other areas of health and quality of life for PLWH (National HIV/AIDS Strategy Update, 2015).

Stigma not only affects the PLWH in the United States, but it also affects PLWH worldwide (UNAIDS, 2014). Stigma is a barrier to achieving the UNAIDS 90-90-90 initiative, that 90% of all PLWH will know their status, 90% of all PLWH will receive antiretroviral treatment, and 90% of all PLWH receiving antiretroviral therapy will be virally suppressed (UNAIDS, 2014). However, stigmatizing behaviors prevent individuals from seeking medical treatment (Stringer et al., 2016). Lack of medical treatment prevents individuals from learning their status as well as obtaining the medical treatment necessary if they are HIV positive (Stringer et al., 2016). With national and international organizations recognizing healthcare stigma towards PLWH as a major barrier to care, action needs to be taken at local organizational levels to address this issue as well.

Patient and healthcare provider relationships are essential for health promotion. A safe environment where patients feel welcomed and comfortable to share their needs and concerns with care providers is the basis of a strong provider and patient relationship. (Batey et al., 2016, Varas-Diaz et al. 2016). When a person in a vulnerable state seeks assistance, stigmatizing behaviors can destroy the patient-provider relationships and prevent the person from returning for care (Sutterheim et al., 2014; Vorasane et al., 2017; Hill & Evans, 2016). Therefore, when

the healthcare provider creates a negative environment, PLWH feel stigmatized (Batey et al., 2016; Varas-Diaz et al., 2016). The likelihood of returning to care and motivation to seek healthcare deteriorates; this may result in discontinuation of ART, lack of viral load monitoring, and missed healthcare visits, all of which can result in decreased immune function and opportunistic infections (Batey et al., 2016). Efforts to reduce stigma may increase access to care for PLWH. The need to address stigma in the acute care setting aligns with many national and global campaigns to stop HIV related stigma.

Needs Assessment

Informal observations of nurses during the change of shift report revealed discriminatory behaviors specifically related to patients with HIV. Rather than state the diagnosis of a patient, nursing staff write “HIV” on a piece of paper and hand it to the oncoming shift, alerting the next nurse of the diagnosis. Other behaviors that demonstrate stigmatizing behavior by nurses include saying “high-five,” (indicating: HI- roman numeral V) to spell out HIV or lowering their voices when mentioning HIV. Informal interviews with nurses about these behaviors indicated that many did not know the reason they had a negative perception of PLWH. These general observations in the acute care setting prompted the need for a formal investigation as to the reasons these stigmatizing and discriminatory behaviors are occurring in the facility. This investigation was achieved through an anonymous survey of the ICU using the HPP HIV Stigma and Discrimination Questionnaire that identified stigma and discriminatory behaviors and feelings towards PLWH.

Problem Statement

Stigma significantly affects PLWH and negatively impacts their health. Stigma deters PLWH from seeking healthcare, adhering to ART regimens, and maintaining viral suppression. At a medical center in southern New Jersey, stigmatizing behaviors and attitudes directed at PLWH by providers have been observed. The behaviors and attitudes displayed by providers may discourage patients from returning to care once discharged from the hospital. Stigmatizing attitudes and behaviors do not align with the overall vision, mission statement, or values of the hospital system of which this medical center is a member. However, HIV Stigma and Discrimination educational programs do not exist at this site.

Clinical Question

In a population of acute healthcare providers (nurses, doctors, nurses aids, physician assistants, nurse practitioners) (P), does targeted education about HIV (I), compared to current practices (C), reduce stigmatizing behaviors and attitudes towards PLWH and increase knowledge about HIV infection (O)?

Aims and Objectives

The overall aim of this project is to decrease stigma related to HIV in the acute care setting. This project will identify acute care providers' attitudes that contribute to stigmatizing behaviors. It also is intended to improve knowledge about HIV. These aims will be achieved through the following objectives:

- The administration of the HPP standardized questionnaire: *Measuring HIV Stigma and Discrimination Among Health Facility Staff* to healthcare providers to identify and measure the immediately actionable causes of stigma and clinical discrimination.

- Administration of the HIV-Knowledge Questionnaire to a sample of providers before and after the educational session to evaluate changes in HIV knowledge.
- Implementation of an educational session about HIV infection, HIV stigma and clinical discrimination, and suggestions to decrease HIV stigma
- Measure the effect of the educational session on HIV stigma and clinical discrimination by administering the HPP Standardized Questionnaire as an anonymous survey one month after the intervention.
- Analyze the results of the HPP Standardized Questionnaire to determine if there has been a change in stigma and clinical discrimination

Review of Literature

Search Strategy

The initial search was conducted according to the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) guidelines (Appendix M). CINAHL, EBSCO HOST, and Google Scholar were searched for articles about HIV- and AIDS-related stigma. Joanna Briggs and Cochrane databases were searched for systematic reviews. Search terms included: *HIV and AIDS discrimination, HIV stigma, health care workers, and acute care*. Inclusion criteria encompassed articles published between 2005-2019, the English language only, and full-text articles. Articles were excluded if they did not relate to the clinical question. The total number of articles reviewed was fifteen articles (Appendix A).

Stigma in Healthcare

Although stigma and discrimination occur in a variety of settings, it is largely present in healthcare settings (Hill & Evans, 2016; Schuster et al., 2004; Zukoski & Thorburn, 2009). In

the United States, PLWH reported feeling stigmatized in the healthcare setting (Schuster et al., 2004). In one study, 20% of participants said that the healthcare provider appeared uncomfortable around them, 17% reported that they were made to feel inferior, 18% reported that the provider avoided them, and 8% reported refusal of care based on their HIV status (Schuster et al., 2004). In another study, PLWH reported feeling discouraged and found it difficult to remain positive or believe in a positive future when encountering discrimination in healthcare settings (Zukoski & Thorburn, 2009).

The provider perspective reveals the stigmatizing beliefs and behaviors of healthcare workers. Some healthcare workers report feeling shame or had blame beliefs about PLWH and healthcare workers report observing others discriminate against PLWH in healthcare settings (Hill & Evans, 2016). Another survey of healthcare workers found that 89.4% reported negative feelings about PLWH, and 97.7% of participants reported observing other healthcare workers discriminate against PLWH (Hill & Evans, 2016). In another study, found that 29% of healthcare workers admitted they had rendered unfair treatment to PLWH (Andrewin & Chien, 2008). A study concluded that 50% of physicians and nurses reported having stigmatizing attitudes about PLWH (Vorasane et al., 2017).

Forms of Stigma

Investigators also explored the forms of stigma and how discrimination was manifested. As studies indicated that healthcare providers were reporting discrimination towards PLWH, it became important to understand how stigma was manifested in these settings. Stigma can be manifested in comments, verbal abuse directed at a PLWH, or it could be subtle and indirect. An awkward interaction with PLWH would be an example. Other forms of stigma include neglect; discouragement of treatment; labeling of charts, beds, and rooms; refusal to treat; and verbal

abuse (Stutterheim et al. 2014). Healthcare providers who reported that they did not have negative feelings towards PLWH would use extra precautions such as wearing gloves during all aspects of care for a PLWH and wearing two gloves, when they would not wear gloves otherwise (Stutterheim et al., 2014). Providers also reported being more vigilant in the presence of PLWH (Stutterheim et al., 2014). In an attempt to understand these behaviors, investigators explored the emotions associated with stigmatizing behaviors.

Emotional Reactions

Emotions contribute to many of the behaviors, reactions, and interactions between providers and patients in healthcare settings (Stutterheim et al., 2014; Varas-Diaz et al., 2015). Varas-Diaz et al. (2015) reported that fear, pity, and embarrassment were associated with HIV and affected the interactions between providers and patients. They also found that providers felt it was difficult to overcome these negative emotions to provide care to the PLWH. Stutterheim et al. (2014) reported that participants described that, despite knowing that HIV is a chronic disease, they continued to have negative emotions when interacting with PLWH, even while understanding that feeling fearful of HIV and PLWH was illogical.

Fear of HIV

Fear is one of the major feelings that contribute to stigma (Stutterheim et al., 2014; Varas-Diaz et al., 2015; Vorasane et al., 2017; Nyblade, Stangle, Weiss & Ashburn, 2009). Providers who reported fear had limited experience with PLWH and less education about HIV compared to those who did not fear caring for PLWH (Vorasane et al., 2017). Investigators found that fear of HIV was related to a lack of knowledge, which contributed to HIV stigma (Nyblade, Stangle, Weiss, & Ashburn, 2009).

Provider knowledge of HIV

As mentioned above, healthcare workers' lack of knowledge contributes to HIV stigmatization (Vorasane et al., 2017). In a systematic review, the results of multiple studies demonstrated that poor knowledge about HIV and fear of contracting the virus was the major concern of providers (Hill & Evans, 2016). In a study by Hill and Evans (2016), nurses reported that they were distracted by the thought of transmission, yet they had rarely interacted with PLWH. In contrast, nurses who had less fear of HIV attributed their security to both their knowledge about HIV and experiences with PLWH. In another study, 50% of nurses and doctors in the sample reported no training or education about HIV, and 84% did not personally know anyone with HIV (Mak et al., 2015). Educating healthcare professionals about HIV may alleviate fears and correct misconceptions that lead to stigmatizing behaviors (Nyblade, Stangle, Weiss & Ashburn, 2009).

Educational Interventions to Decrease Stigma

Several educational interventions have successfully decreased healthcare provider stigma (Batey et al., 2009; Varaz-Diaz et al., 2016; Mak et al., 2015). One study used a two-day modified workshop that included healthcare workers and PLWH from the community to address stigma in healthcare and to share information (Batey et al., 2009). Another study used a three-part educational session for medical students and was effective in reducing HIV stigma attitudes; after 12-months, there continued to be decreased stigmatization (Varas-Diaz et al., 2016).

Educational methodologies can vary and still be effective in reducing and sustaining stigma (Mak et al., 2015). Investigators compared an educational session with games to an educational session that included interactions with PLWH. They found that HIV knowledge, stigmatizing attitudes, discrimination, fear of infection, support of coercive policies, and

willingness to treat were improved in both interventional groups both immediately after the intervention and one month later (Mak et al., 2015).

Conclusion

Investigators conducted studies to identify reasons that stigma is occurring. The lack of knowledge about HIV and fear of HIV are considerable factors that have contributed to HIV stigmatization in healthcare settings (Hill & Evans, 2016; Vorasane et al., 2017). Despite different approaches to addressing HIV stigma, it is still unclear what might be the most effective way to decrease HIV stigma in healthcare settings. The literature review would support that a significant cause of stigma in healthcare settings is a lack of knowledge. To this end, several educational activities have been proposed to address this lack of knowledge. Addressing provider knowledge about HIV and identifying how stigma may be manifested can improve the healthcare experience that PLWH experience.

Theoretical Framework

The Framework for Action is a model developed by the HPP to assess and measure stigma and discrimination in healthcare facilities while creating sustainable interventions. This model was developed from existing measurement tools, data collected from the HPP stigma and discrimination questionnaire, and reports of successful interventions. The Framework for Action model considers organizational interventions and measurement of stigma and discrimination of both healthcare employees and patients. However, in this project, the focus will be on the healthcare providers only. The Framework for Action model (See Appendix B) is comprised of four sections:

1. Actionable Drivers to be Addressed in Health Facilities

2. Reduced Stigma Manifestations
3. Improved Outcomes
4. Improved Impacts

All sections of the framework will be applied. Each step of the process is described below:

1. **Immediately Actionable Drivers to Be Addressed in Health Facilities**—The intervention is aimed at two of the components of this step: the fear of HIV infection and health facility policies. The importance of the proposed intervention can impact the individual staff level as well as the institutional level. The needs assessment identified negative attitudes from staff members towards PLWH and clinical discrimination.
2. **Reduced Stigma Manifestations**—This step addresses the multiple ways that stigma can be manifested and measured. In this project, the impact of the educational session on HIV and stigma towards PLWH will be evaluated using the HPP standardized questionnaire *Measuring HIV Stigma and Discrimination Among Health Facility Staff*.
3. **Improved Outcomes**—This step refers to the impact that the intervention has made within the implemented area itself. In this project, the knowledge of the participants after the educational session is an expected outcome. A pre- and post- test of HIV knowledge (the HIV-Knowledge Questionnaire) will measure difference before and after the educational intervention.
4. **Improved Impacts**—This step demonstrates the expansion and implications of the project and the impact of education. The post-education 1-month follow up questionnaire (Health Policy Project Standardized Questionnaire) will be administered to the entire unit to reevaluate the level of stigma and discrimination. The results of this project will also support policy change in the organization for standardized HIV education for providers.

Methodology

This project used a two group pre and post-test interventional design. An anonymous survey was administered to the ICU staff to evaluate attitudes and stigmatizing behaviors towards PLWH before the intervention. Then, an educational program based on the needs assessment was delivered to 18 volunteer participants. Program participants' knowledge of HIV was evaluated using pre- and post-intervention questionnaires. Another anonymous survey of ICU staff attitudes and stigmatizing behaviors was administered one month after the last educational intervention. Outcomes measured included HIV knowledge, attitudes towards PLWH, and stigmatizing behaviors.

Project Design

This project was a two-group pre and post interventional design using online and paper questionnaires. The first group consisted of the entire ICU staff that received the HPP Standardized Questionnaire via Survey Monkey. All responses were anonymous (refer to Appendix D). The second group consisted of the ICU staff that participated in the educational session. The HIV Knowledge Questionnaire was administered twice to participants who attended the educational session before and immediately after the educational session. One month following the educational session, the HPP questionnaire was sent to the entire ICU staff as an anonymous survey using Survey Monkey.

Setting

This project took place in the 24-bed neurosurgical and trauma ICU of a suburban hospital in New Jersey. This hospital is an academic healthcare center and a level two-trauma center, which provides emergency procedures, elective procedures, and has a follow up clinic.

Study Population

The two samples for this project were derived from all healthcare providers in the ICU unit. This population included assistant nurse managers, nurse managers, advanced nurse practitioners, registered nurses, patient care assistants, physician assistants, residents, physicians, and case managers who met the inclusion criteria of currently working in the unit. Healthcare providers who did not work in the unit or were unable or unwilling to participate were excluded from participation in the project.

Project Recruitment

Participants for the anonymous survey were recruited via email through Survey Monkey. Participants were recruited for the educational intervention through a flyer posted within the unit. Please see Appendix E for the flyer. Charge nurses, assistant nurse managers, and the nurse manager were asked to mention the project during morning huddle.

Consent

All participants who volunteered for the education session and the anonymous survey were informed that participation in the project involves minimal risk, any information collected would be held confidential, and participation was voluntary. Participants were provided with an information sheet (Appendix F) that included: 1) the purpose of the project; 2) an explanation that there will be no direct benefits and minimal risks to participation; 3) assurance of confidentiality and 4) an assurance of the right to terminate participation at any time. Before the educational session, the co-investigator provided an overview of the planned interventional project along with the information sheet. Potential participants had the opportunity to ask questions and gain any additional information needed to provide consent. Consent was obtained from those who agreed to participate.

Risks and Harms

There were minimal risks to persons participating in this interventional project. As a precaution, if uncomfortable feelings or thoughts occurred while taking the anonymous survey or while participating in the educational session, participants were provided the contact information for the Employee Assistance Program (EAP) at this hospital. Participation in this project was voluntary and participants could leave at any time.

Subject Costs and Compensation

There were no costs to participants. There were no direct or guaranteed benefits to participating in this project, other than contributing to the body of knowledge about HIV stigma. In appreciation of participant time, the PI provided light snacks and beverages.

Study Intervention

The project intervention consisted of a PowerPoint presentation. Topics included in the PPT were statistics on HIV, the transmission of HIV, incidence and prevalence of HIV, incidence and risk of healthcare workers contracting HIV, stigma, discrimination, and how healthcare workers can change stigmatizing behaviors. The educational session was approximately 20 minutes. There was a designated time at the end of the education for questions and answers.

Outcomes

The outcomes measured included knowledge of HIV in the educational participants and stigmatizing behaviors and attitudes towards PLWH in the ICU staff. In this project, stigmatizing behaviors are behaviors that demonstrate disapproval of the clinical diagnosis of HIV, such as nurses gossiping about a patients' HIV status. Clinical discrimination is the difference in the way care is delivered or performed based on the diagnosis of HIV. An example

of this would be the nurse applying two sets of gloves for the patient who has HIV when normally only one set of gloves is worn. Attitudes in this study are the beliefs about and perceptions of PLWH. Attitudes are defined as one of the immediately actionable causes of stigma and discrimination by the HPP (Jain, Carr, & Nyblade, 2015).

Data Collection Tools

An international research team developed and tested the *Measuring HIV Stigma and Discrimination* standardized questionnaire and a step-by-step manual for implementation in healthcare facilities. The questionnaire was pilot-tested in six sites in diverse settings: China, Dominica, Egypt, Kenya, Puerto Rico, and St. Kitts & Nevis. The HPP created the questionnaire so that it can be applied to diverse settings to produce data that can be used to guide action. The international experts reviewed the results and assessed each question's potential for inclusion in a brief questionnaire. This questionnaire was deliberately designed to capture immediately actionable causes of HIV-related stigmatization as well as their manifestations (discrimination) (Jaine, Carr, & Nyblade, 2015). Permission to use the questionnaire in a healthcare facility is not required.

The original questionnaire has five sections. Items that did not pertain to the targeted healthcare providers were not administered. The first section collects demographic data about the participants; three items from the original questionnaire were used (See Appendix D). The second section refers to infection control within the healthcare facility using Likert-type scales. These questions ask about how worried the participant is when performing certain procedures in PLWH and the types of infection control applied. The next section asks about the work environment and institutional policies related to PLWH using 4-point Likert-type scales. The

final section gathers opinions about PLWH using a 4-point Likert-type scale that identifies the causes of discrimination.

The tool used to assess knowledge about HIV before and after the educational session was the *HIV Knowledge Questionnaire (HIV-KQ18)*. It is an 18-question knowledge questionnaire that is answered in the format of “true”, “false”, or “do not know”. This tool has demonstrated internal consistency, stability, and sensitivity. The HIV KQ-18 does not require permission for use.

Project Timeline

After approval of the hospital’s IRB and Rutgers University IRB, the project began on December 31, 2019. On December 31st, invitations to complete the anonymous HPP HIV Stigma and Discrimination surveys were sent to the entire ICU staff. The survey link was active for two weeks. During those two weeks, potential participants could complete the anonymous survey at any time. On January 1st, flyers were posted in the unit with dates of planned educational sessions. A total of three educational sessions were held on January 22nd, 25th, and 31st. On the educational session dates, the HIV-KQ18 test was administered before and immediately after the educational session. Data analysis of the HPP Anonymous HIV Stigma and Discrimination survey and the pre-intervention, post-intervention HIV-KQ18 tests began on February 1st. Invitations to complete the anonymous HPP HIV Stigma and Discrimination survey was sent out again to the entire unit on February 17th and was available for two weeks. Data analysis for the post-intervention anonymous survey began March 2nd and finished on March 15th.

Resources Needed/Economic Considerations

The budget for this project was \$100.00. The educational room was reserved during the three dates and times chosen for the educational sessions at no cost to the investigator. The investigator funded the cost of flyers, printed information sheets, and survey sheets. No cost was incurred for participants other than their time because classes were held while staff members were on shift and during shift change.

Evaluation Plan

Following the post-test for the educational session, the participants were asked to answer an additional three questions to evaluate the educational session (Appendix G). Participants were asked if they felt they gained new knowledge about HIV, the likelihood of sharing information from the educational session with others, and if the new knowledge would change their practice. Responses were in the form of “agree”; “disagree”; “likely”, and “not likely”. The intervention would be considered successful if 25% of participants reported they were likely to share this information with a colleague and reported likely to change their practice.

Data Analysis Plan

Descriptive statistics were performed to describe the sample. Data from the HIV-KQ18 pre-intervention and post-intervention tests were collected and entered into SPSS version 22 and analyzed. An independent t-test was performed to analyze the pre-intervention and post-intervention test scores. Descriptive statistics were used to describe the anonymous survey responses.

Data Maintenance/Security

No identifiable data was collected on the pre- and post-surveys. A drop box for participants during the educational session was used for the knowledge questionnaire. The principal investigator and the chair were the only persons given access to the information. The information was stored in a locked office. Once the project was completed, paper data was destroyed according to the hospital's IRB regulations and Rutgers IRB regulations.

Results**Demographics**

The HPP Anonymous HIV Stigma and Discrimination Survey obtained demographic data about the participants. A total of 39 participants completed the HPP anonymous-pre survey and 4 participants completed the anonymous-post survey, for a total of 43 participants that responded to the anonymous survey (see Appendix H, Table 1.1 and 1.2). Comparisons could not be made between the anonymous surveys as there was such a large difference in the number of participants' pre-intervention compared to post-intervention.

The participants included a varied mix of job roles. Two participants (5%) classified themselves as a nurse's aid or patient care technician. Seven participants (16%) classified themselves as a physician's assistant, nurse practitioner, or a resident. There were 33 participants (77%) that classified themselves as registered nurses and one participant (2%) self-classified as a secretary.

The years of experience in healthcare ranged from one year to 42 years. Nine (20.9%) participants reported 0-5 years of experience, nine (20.9%) participants reported 11-20 years experience, 19 (44.2%) participants reported 6-10 years experience and six (14%) participants reported greater than 20 years experience.

Three questions in the anonymous HPP HIV Stigma and Discrimination survey asked about training and education that included previous education about HIV stigma and discrimination, universal precautions, and key population stigma and discrimination. Of the participants, 29 (69%) reported no education regarding HIV stigma and discrimination; three (7%) reported no training on universal precautions, and 27 (64%) participants reported no training or education about key population stigma and discrimination.

The pre- and post- educational survey evaluated provider knowledge about HIV and transmission. A total of 18 participants participated in the educational session and the testing; however, demographic data was not obtained from these participants.

HPP HIV Stigma and Discrimination Results

Self-Reported Fear of HIV. Self-reported fear of HIV was obtained as the participants responded to the anonymous HPP HIV Stigma and Discrimination survey. Participants rated their feelings on a 4-point Likert-type scale from *not worried* to *very worried* regarding infection control precautions while caring for PLWH (see Appendix D for questions asked). When asked about touching the clothing of PLWH, 31 (73.8%) participants reported not feeling worried and 11 (26.1%) reported feeling worried. The 11 participants who reported feeling worried, classified their job role as registered nurses (see Appendix I, Table 1.3-1.9).

A total of 29 (70.7%) participants reported some level of concern when dressing the wounds of PLWH (see Appendix I, Table 1.3-1.9). Twelve (28.5%) participants reported not worried, 17 (40%) reported a little worried, 8 (19%) participants reported worried, and 4 (9%) reported feeling very worried.

When asked about drawing blood from PLWH, a total of 31 (75%) participants reported feeling at least a little worried. Eleven (26.2%) participants reported no worry, 18 (42.9%)

participants reported a little worried, 8 (19%) reported feeling worried, and 5 (11.9%) participants reported feeling very worried. In terms of job role and associated responses, 31 (75%) nurses responded and reported feeling at least a little worried when drawing blood from PLWH. Of the seven physician's assistants, nurse practitioners, or residents that responded, 5 (71.4%) reported feeling at least a little worried (see Appendix I, Table 1.3-1.9). When asked about taking the temperature of PLWH 34 (80%), participants reported not feeling worried; however, eight (19%) participants reported feeling a little worried. Of the eight participants that responded to this question, seven were registered nurses and one was a physician's assistant, nurse practitioner, or resident.

Stigmatizing Behaviors. Stigmatizing behaviors were obtained through the anonymous HPP HIV Stigma and Discrimination survey. Question two in the second section asks about different types of precautions when rendering care to a PLWH and is answered in the form of yes/no/not applicable (see Appendix D for the HPP Anonymous Survey). In question two, part A, when asked about avoiding physical contact, two participants reported "yes."

In question two, part B, when asked about wearing double gloves while caring for PLWH, 10 (24%) participants reported "yes." Of the 10 participants who reported wearing double gloves, nine were registered nurses and one was a physician's assistant, nurse practitioner, or resident. When comparing the reported years of experience and the reported response to double gloves, eight of the providers had more than five years of experience, and four had more than ten years. (see Appendix J for displayed results).

In question two, part D, when asked about using any special infection control procedures when caring for PLWH, 9 (27.3%) participants reported they use special precautions. When

comparing job role and response, the eight participants who reported extra precautions classified their job role as a registered nurse. (See Appendix J for displayed results).

Question three in Section 2 evaluated stigmatizing behaviors observed by participants within the last 12-months (see Appendix D for full questions). A total of 12 (27.9%) participants reported observing other providers rendering poorer treatment to PLWH. Of those who reported observing poorer care, 11 (25.6%) participants reported observing it once or twice and one (2.3%) participant reported witnessing poorer treatment several times. A total of 20 (46.5%) participants reported observing other providers talk badly about PLWH. Of those 20 participants, 15 (34.9%) reported having observed other providers speaking badly about a PLWH once or twice and 5 (11.6%) participants reported observing this several times. Eleven (25.5%) participants reported observing a healthcare provider unwilling to provide care for a PLWH. Of the 11 participants, nine (20.9%) reported witnessing this once or twice and two (4.7%) reported witnessing this several times (see Appendix J for displayed results).

Attitudes towards PLWH. Attitudes towards PLWH were assessed using the HPP HIV Stigma and Discrimination Standardized Questionnaire Section five, questions 1-5 (see Appendix D for the HPP Anonymous Survey). Participants were asked to answer in the form of a 4-point Likert-type scale ranging from *strongly agree* to *strongly disagree* about a statement (see Appendix K for displayed results). Regarding the first statement that most PLWH do not care if they infect others, 23 (54.8%) participants disagreed with the statement; however, three (7.1%) participants agreed that most PLWH do not care if they infect others. In response to the second statement regarding if PLWH should feel ashamed of themselves, four (9.5%) participants agreed that PLWH should feel ashamed of themselves. In comparison, 38 (90.5%) participants reported they disagreed with the statement. In response to the third statement

regarding PLWH having multiple partners, three (7.3%) participants agreed that PLWH had multiple partners, 28 (68.3%) participants disagreed, and 10 (24.4%) participants strongly disagreed. Regarding the fourth statement that HIV is a consequence of irresponsible behavior, 11 (26.2%) participants agreed that HIV is a consequence of irresponsible behavior, 31 (73.8%) participants either disagreed or strongly disagreed with the statement. All participants disagreed with the fifth statement, that HIV is punishment for bad behavior.

Knowledge of HIV

The HIV-KQ 18 knowledge questionnaire was administered before and immediately after the educational sessions. A total of four educational sessions were held for providers 4-weeks after the anonymous HPP HIV Stigma and Discrimination survey. There were a total of 18 participants. The average score on the pre-test was 86% (see appendix L for a graph of results). Regarding the pre-test, two participants answered question two about coughing and sneezing incorrectly. One participant answered they “did not know” to question three, regarding sharing cups, one participant answered question four, regarding anal sex, incorrectly. One participant answered question five, regarding showering, they “did not know.” One participant answered questions six, regarding pregnant women incorrectly, and one participant answered, they “did not know.” On question eight, regarding a vaccine that prevents HIV, two participants answered, they “ did not know,” and two participants answered incorrectly. On question nine, about kissing, six participants answered incorrectly, and one answered, they “did not know.” On question 10, about sex while menstruating, one participant answered incorrectly. On question 11, about female condoms, 3 participants answered incorrectly, and 3 participants answered, they “did not know.” On question 12, about natural condoms, seen participants answered, they “did not know.” On question 13, about antibiotics, one participant answered incorrectly and one

participant answered, they “did not know.” On question 14, about multiple partners, one participant answered, they “did not know.” Regarding testing for HIV, three participants answered they “did not know,” and one participant answered incorrectly. On question 16 about hot tubs, two participants answered they “did not know.” With regard to oral sex, question 17, three participants answered they “did not know,” and two participants answered incorrectly. Three participants answered they “did not know” to question 18, about Vaseline and condoms,

Levene’s test for equality of variances and an independent samples t-test were performed to determine if there was a statistically significant difference between the means of the pre-test and post-test. An analysis was conducted to determine if there was a difference in the mean HIV knowledge scores (number of correct answers out of 18 total questions) between pre- and post-test. A mean score for the pre-test was 85.5% and the mean score for the post-test was 100%. The t-test was statistically significant, supporting that there was a significantly higher score for the post-test (p-value <0.005).

Discussion of Findings

This project investigated multiple causes of stigma and discrimination. There is research demonstrating the high prevalence of HIV stigma in healthcare settings as well as lack of provider knowledge about HIV. The results of this project are consistent with the literature that there is clinical discrimination, fear of infection, acts of discrimination, and lack of knowledge of HIV among healthcare providers (Hill & Evans, 2016; Batey et al., 2016; Nyblade et al., 2009). After the educational implementation, healthcare providers indicated an increase in knowledge about HIV and awareness of stigma and clinical discrimination. Due to the lack of follow up responses to the second anonymous HPP HIV Stigma and Discrimination survey, conducted after the educational session, a comparison analysis could not be conducted. However, this

project can serve as a foundation for further education, projects, and programs to decrease stigma and clinical discrimination towards PLWH and other marginalized groups in healthcare facilities.

Forms of Stigma

The results of this project were consistent with findings from prior research regarding behaviors that are manifestations of stigmatization and discrimination (Hill & Evans, 2016; Nyblade, Stangle, Weiss & Ashburn, 2009; Stutterheim et al., 2014; Varas-Diaz et al., 2015; Vorasane et al., 2017). The findings indicated that participants observed stigmatizing behavior in others and also engaged in stigmatizing behaviors. Participants (27.9%) reported witnessing other providers rendering poorer quality of care to PLWH, refusing to care for PLWH (25.6%), and talking badly about a PLWH (46.5%). Also supported by research, participants in this project reported taking extra precautions, such as double gloving (23.8%) when caring for a PLWH.

Provider knowledge of HIV

The project's aim to increase knowledge about HIV, including stigmatization and discrimination, was achieved. The providers that participated had a solid base of knowledge regarding HIV, as evidenced by their responses to the HIV Knowledge Questionnaire pre-test; however, there were several questions, which participants reported they did not know. Post-test responses demonstrated an increase in knowledge with a 100% rate. It is also important to note that before the intervention, 69% of providers reported no previous educational classes on HIV stigma or key populations. During the educational sessions, participants were encouraged to ask questions as well as bring up concerns that they had. Participants made their feelings known by asking questions about the questionnaire to have a better understanding of their risks, as well as to understand the PLWH population. Many of the participants had never heard of pre-exposure

prophylaxis (PrEP) to prevent one from becoming HIV positive. This topic was discussed in detail during one of the educational sessions. Another topic that was discussed was healthcare providers' risk while caring for PLWH. Many participants openly discussed their fears for caring for PLWH. During a different educational session, providers were shocked to learn that wearing double gloves can be perceived as a stigmatizing behavior while caring for PLWH. Other providers learned the time it takes for seroconversion to occur, meaning that testing for HIV is done at three-month intervals rather than a week after possible exposure.

Providers were also asked in the anonymous HPP HIV Stigma and Discrimination survey about previous education or training about HIV stigma and discrimination as well as other key populations. Based on the results, many participants (69%) had no previous education about HIV stigma and discrimination or education about other key populations (64%). This also indicates the lack of policy on education or sensitivity training about PLWH or other key populations for employees at this facility.

Self Reported Fear of HIV

Despite years of clinical experience, there is still fear associated with HIV disease. The majority of nurses (80%) and advanced practice providers (71.4%), which included physician's assistants, nurse practitioners, residents, and physicians, who answered the HPP HIV Stigma and Discrimination survey had more than six years of experience in healthcare. The anonymous HPP HIV Stigma and Discrimination survey before the intervention demonstrated findings consistent with the literature that a lack of knowledge about HIV generates fear when caring for PLWH (Stutterheim et al., 2014; Varas-Diaz et al., 2015; Vorasane et al., 2017; Nyblade, Stangle, Weiss & Ashburn, 2009). Participants reported some level of concern when dressing wounds (70.7%) and seventy-five percent of participants reported feeling worried when drawing blood from

PLWH. Nurses were the largest group of providers (77.4%) who were also participants that reported at least a little worried when drawing blood from PLWH. This fear of providing care for PLWH may be related to a lack of knowledge about HIV, as 69% of providers ($N=41$) reported no previous training or education about HIV stigmatization and discrimination, and 64% providers ($N=41$) reported no training or education about key populations and stigma.

Facilitators and Barriers

There were several barriers to implementing this project. One barrier was the difficulty of coordinating approval from both the Rutgers University IRBs and the site IRB. The difficulty coordinating the approval between two different IRBs required five months, which then abbreviated time that could be dedicated to the project, limiting the ability to implement the project, collect data, and analyzed results. Another barrier to this project was the change in the site's electronic health record system. This change took away time, focus, and energy from the healthcare providers who were asked to participate in the anonymous HPP HIV Stigma and Discrimination survey and the educational session. However, the support provided by team members and facility administration helped to secure the number of participants the investigator was able to recruit. This project also created curiosity among the staff that helped in the participation rate.

Unintended Consequences

There were several unintended consequences of the project. Nurses and nurse's aides asked more questions outside of the classroom and continued to do so after educational sessions were completed. Many staff members were happy that this project was implemented because they had experienced stigmatization and discrimination as a family member of a PLWH. This spike in interest was unintended, but also demonstrated hope that the increasing awareness of

HIV will decrease stigmatization and clinical discrimination. The interest and questions that arose during the educational sessions and after indicate that staff need and desire to learn more about HIV and PLWH.

Limitations

There were limitations. Follow-up surveys were administered after one month rather than two-months due to administrative issues at the facility. The short time was not ideal for determining sustainability or follow-up projects. The small number of participants who responded to the follow-up anonymous HPP HIV Stigma and Discrimination survey hindered the evaluation of the educational session's impact on clinical practices, attitudes, and stigmatizing behaviors.

Evaluation

An evaluation of the educational session was completed immediately after the educational session ended to determine the effectiveness of the intervention. The evaluation was conducted using self-reporting. Participants were asked to answer three questions about the educational session (see Appendix G). The first question asked participants if they felt their knowledge improved based on the educational session, 100% of participants agreed they had gained information. The second question asked participants about sharing gained knowledge, 100% of participants reported they would likely share their gained knowledge with a colleague. The third question asked about changing practice, 100% of participants reported that they would be changing their practice based on the educational session. The goal was that 25% of participants were likely to share this information with a colleague and 25% report improved care. Based on the response of 100%, this educational session was effective.

Implications

The overall aim of this project was to impact the knowledge of healthcare providers about HIV stigma, decrease stigmatization and improve delivered clinical care by conducting targeted educational sessions for healthcare providers. Although it was a small pilot project, it has the potential to change organizational policies, support further healthcare provider education, improve clinical practice and the quality of delivered care.

Economic Implications

There also may be economic implications for the organization. Positive provider and patient interactions lead to more satisfied patients, who have a high rate of return visits, as well as improved healthcare outcomes and treatment adherence rates (Prakash, 2010). By improving HIV knowledge and attitudes and reducing clinical discrimination towards PLWH, patients will receive higher quality care and be more satisfied with the healthcare experience, which will ultimately lead to an increase in follow up care (Prakash, 2010).

An increase in follow up care for PLWH brings economic benefits to the facility as well as to the patient. The cost of treatment for one HIV- infected individual ranges from \$1,854-\$4,545/month (USD), depending on age, sex, race/ethnicity, and transmission (Schackman et al., 2016). Cost fluctuates for uncontrolled viral loads and sick care (Schackman et al., 2016). Increases in the cost of care are impacted by compromised health when PLWH do not return to care due to fear of stigmatization. However, improved provider-patient interaction and patient satisfaction through addressing HIV stigmatization and discrimination will lead to higher quality delivered care, increased follow up care, and decreased cost of treatment through continued controlled HIV viral load.

Policy Implications

This project evaluated healthcare providers' knowledge, attitudes, and self-reported clinical practices towards PLWH, and demonstrated the lack of healthcare policies regarding HIV education at an organizational level. HIV stigmatization in healthcare is prevalent and continues to be a major barrier to care for PLWH (National HIV/AIDS Strategy Update, 2015). The United States National HIV/AIDS Strategy has addressed this issue and stated that PLWH in the United States will receive high-quality healthcare free from stigmatization and discrimination (National HIV/AIDS Strategy, 2015). Leadership is key in modeling behavior that is acceptable and is free of stigmatization and discrimination. People in leadership positions need to know that stigmatizing behaviors are occurring on the units and within the organization. As evidenced by the results of this project, providers at this organization reported stigmatizing behaviors.

The National HIV/AIDS Strategy has identified several reduction steps for HIV-related stigma. One of the identified actions to combat HIV-related stigma is developing an indicator to monitor and track the progress and reduction of HIV-related stigma. This project supports the National HIV/AIDS Strategy by evaluating the causes of stigma within an organization and addresses the cause by implementing an educational program. The results of this project demonstrate that the organization fails to address the National HIV/AIDS Strategy and that there is an opportunity for improvement.

The National HIV/AIDS Strategy mandates institutions to address HIV stigmatization within the healthcare facility. Currently, there is no training for acute care providers on HIV, PLWH, or key populations affected by HIV. The results of this project noted that staff members are concerned about their risks as a provider while caring for PLWH. Also, there is no adequate

education or annual competencies for newly hired healthcare providers or existing acute care providers to educate them about the risks and transmission of HIV or the treatment of PLWH.

Stigmatization and clinical discrimination are policy issues on the federal and state level. Stigmatization and discrimination related to HIV violate the civil rights of PLWH. There are multiple agencies, including federal and state governments that participate in enforcing civil rights protections. One of these departments is the United States Department of Justice (DOJ).

The United States DOJ is a regulatory body responsible for enforcing federal laws. The DOJ's Civil Rights Division works to protect all Americans, including vulnerable members of society. The DOJ is also one of the leading agencies in the National HIV/AIDS Strategy. The DOJ participates in the National HIV/AIDS Strategy specifically by strengthening the enforcement of civil rights laws and opening investigations of HIV/AIDS discrimination.

The United States Department of Health and Human Services Office for Civil Rights (HHS/OCR) ensures equal access to certain health services as well as investigates complaints of discrimination against PLWH, particularly as it relates to healthcare. Examples of this would be breaches of medical information that go against the Health Insurance Portability and Accountability Act (HIPPA) Privacy Rule or refusal to care for an individual because of their HIV status. These regulatory bodies and departments have laws in place to protect PLWH. It is unclear whether they are effective enough, or if individuals are not utilizing these laws to support themselves because stigmatization and discrimination continue to be prevalent in healthcare settings.

Another goal of the National HIV/AIDS Strategy is to improve access to care for PLWH and key populations along with comprehensive healthcare services. As mentioned, stigmatization and discrimination create a barrier to the continuum of care for PLWH. As these

departments continue to protect human rights and address the challenges PLWH encounter, it is important to note that these agencies can also help create and enforce new policies. An example of a new policy would be one that addresses the need for sensitivity and education for PLWH. Healthcare organizations should be required to have sensitivity training and education about HIV and providing care for PLWH. These policies do not need to be limited to acute care settings. This type of education would be beneficial in many other types of healthcare settings, such as urgent care centers, pharmacies, and dentist offices. Expanding the education beyond hospitals would assist in comprehensive healthcare services for PLWH and key populations by addressing stigmatization and discrimination, along with increasing knowledge for acute care providers.

With support from these governing bodies and the organization's support, new policies can be developed for training and education about HIV stigma and discrimination. Education and training should be included during employee orientation and annual training. Annual training and education are imperative to continue to monitor and address the progress of stigma and discrimination as encouraged by the National HIV/AIDS Strategy.

Quality and Safety

This project revealed a lack of healthcare provider knowledge about HIV and self-reported clinical discrimination, these factors contribute to poor quality care. Staff members reported observing other providers rendering poorer treatment to PLWH, including refusal to care for PLWH. Several staff members also reported the use of extra precautions while caring for PLWH. These actions do not represent the delivery of high quality healthcare, but rather demonstrates a substantial lack of knowledge about HIV disease process. Fear and lack of knowledge are contributing factors to stigmatizing behaviors, as evidenced by the findings of this project. These findings are further supported by the body of literature about HIV stigmatization from healthcare

providers (Stutterheim et al., 2014; Vorasane et al., 2017). This project addressed a lack of knowledge that impacts poor quality care at the facility by implementing an educational session about HIV.

High quality of care is imperative for multiple reasons, including improved patient satisfaction scores, improved healthcare outcomes, and an increase in follow up care (Prakash, 2010). Not only is the quality of care compromised by stigmatizing behaviors, but individuals may not return to care because of the poorer treatment they have received. They will not seek out preventative healthcare for fear of experiencing the stigmatizing behaviors exhibited by staff (Prakash, 2010). This lack of care also creates a safety concern for patients because their disease process is not being managed. Another safety concern is creating an environment where patients feel welcomed and comfortable to share their needs and concerns with healthcare providers (Batey et al., 2016; Varas-Diaz et al. 2016). The quality of healthcare individuals deserve can improve with continued education on HIV stigmatization.

Clinical Practice

The results of this project confirm previous research findings that stigmatization is still present and has a direct and negative impact on the care being rendered (Hill & Evans, 2016; Nyblade, Stangle, Weiss & Ashburn, 2009). Key findings include a lack of healthcare provider knowledge about HIV and self-reported forms of clinical discrimination. These findings are detrimental and undermine the organization's goal to provide high quality care to all patients because the attitudes and clinical practices do not align with the organization's vision to provide exceptional patient care. These findings allow room for growth and improvement in clinical practice within the organization. Results indicated an improvement of knowledge after the educational sessions. However, the investigator was unable to evaluate the impact of education

on clinical practice because of a lack of participation in the post-education anonymous HPP HIV Stigma and Discrimination survey. This project is the foundation for future projects that address HIV stigmatization and discrimination. In addition, a 6-month follow up anonymous survey would be better to assess retained knowledge as well as document any improvements in clinical practices.

Sustainability

The positive impact of a project also includes the sustainability of the results. This project addressed HIV stigma in a small population of healthcare providers. There was a high initial response to the anonymous HIV Stigma and Discrimination survey, and the educational session had positive results; however, the post-intervention results of the anonymous survey had a very low response rate. Due to the constraints placed on timing in this project, it cannot be determined at this time if the results are sustainable. The future plan for this project is a 6-month follow-up evaluation to determine its impact. Results from this evaluation would allow the educational intervention to be revised for use across the facility to improve the quality of care for all PLWH. Evaluation results and actionable recommendations will be presented to all educational administrators. A goal is to implement the project system-wide and drive the change to eliminate stigmatizing behaviors towards PLWH. It is intended that the educational administrators will organize sensitivity training for all employees at the facility and continue to administer the anonymous HPP HIV Stigma and Discrimination survey evaluating HIV stigma.

As supported by the literature, educational presentations alone are not always successful in creating a sustainable change (Mak et al., 2015). There are many different learning and teaching styles to be considered when educating large groups on sensitive topics. One consideration would be role-playing scenarios that healthcare providers might encounter on a regular basis to

allow providers to address areas where stigmatizing behaviors occur and demonstrate how PLWH might react and feel towards the behavior. This type of educational intervention was shown to create a sense of understanding in healthcare providers (Mak et al., 2015). Scenario role-playing can help alleviate fears of providers when caring for PLWH and can also help alleviate fears when addressing stigmatizing behaviors (Batey et al., 2009; Varaz-Diaz et al., 2016; Mak et al., 2015). One project goal might be to incorporate and evaluate the use of scenario role-playing into the educational component.

As simply telling people that their behavior needs to change does not drive change, these role-playing scenarios would be helpful for leaders and educational administrators to address the behaviors that they are attempting to change. Demonstration by the administration would allow the staff to witness the actual behavior that leadership is attempting to model. It provides an opportunity to ask questions, seek clarification and practice in an environment that allows the staff to feel safe (Varaz-Diaz et al., 2016; Mak et al., 2015).

Dissemination

This project will be presented at the Rutgers School of Nursing and [REDACTED]. [REDACTED]. An article will be written that summarizes the project and it will be submitted for publication to the Journal of Association of Nurses in AIDS Care, as well as the Journal for Nurse Practitioners.

Based on the results of this project, continued education to address HIV stigma is necessary. As the literature demonstrates, multi-modal education sessions that address different styles of learning are best when addressing a lack of knowledge. This project consisted of a small sample in one ICU, used one learning style, and was implemented in one unit; it would benefit from being tested again on a larger scale. Implementing this project on medical-surgical

floors and the emergency department would allow for a much larger sample as well as enable exposure of healthcare providers to the concept of stigmatization towards PLWH as well as providing HIV education. Implementation of this project on larger in-patient units or primary care facilities would allow for different results compared to the site of this project, a 24-bed ICU with a total of 60 providers.

Summary

PLWH face stigma in healthcare facilities. As a result, PLWH are afraid to seek healthcare care, get medications, adhere to treatment regimens, and follow up with care, which negatively impacts their physiological and psychological health, and decreases their quality of life (Stringer et al., 2016). Addressing HIV stigmatization is part of ending the HIV epidemic. Reducing HIV stigmatization in healthcare facilities is the responsibility of all healthcare providers. The results from this project are supported by the literature and demonstrate that healthcare providers have a lack of knowledge about HIV, have poor attitudes towards PLWH, and may engage in clinical discrimination. Participants reported witnessing or practicing discriminatory behavior towards PLWH. Almost half of the participants witnessed other healthcare providers speaking badly about a PLWH, while 23.8% of participants used double gloves when caring for a PLWH. The results of this study demonstrate the need for follow-up and continued work in the area of HIV stigma and discrimination. It is important to continue to implement a variety of educational opportunities for healthcare providers about HIV and to decrease stigmatization.

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Appendix A: Table of Evidence

Article #	Author & Date	Evidence Type	Sample, Sample Size, & Setting	Study findings that help answer the EBP Question	Limitations	Evidence Level & Quality	Citation
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1	Davtyan, Mariam. Olshansky, E. F., Lakon, C. (2018)	Expert Opinion	<p>None studied</p> <p>Discussion regarding persons living with HIV</p>	<p>Suggestions to address gaps in care:</p> <ul style="list-style-type: none"> -Implement HIV related stigma reduction standard operating procedures developed collaboratively by patients living with HIV and healthcare workers. -Encourage employee compliance with education. <p>Tracking HIV related stigma by administering incentivized surveys to patients and using results to form employee-training protocols.</p> <p>Defined gap in healthcare:</p>	Not a research study	<p>Level V</p> <p>B: Good quality</p>	<p>Davtyan , M., Olshansky, E., F & Lakon, C. (2018). Addressing HIV Stigma in Health Care: Strategies to address this potent barrier to treatment and prevention. <i>AJN American Journal of Nursing</i>, 118(3), 11.</p>
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				Lack of organizational policies and procedures that delineate how patients living with HIV should be treated to reduce HIV-related stigma			
2	Batey, D.S., Whitfield, S., Mulla, M., Stringer, K.L., Durojaiye, M., McCormick, L., Turna, B., Nyblade, L., Kempf, M.C. (2016)	Survey and interviews/focus groups	17 Healthcare workers 19 Persons living with HIV, United States Alabama	Content analysis: participants felt the workshop informative interactive well-organized understandable fun and inclusive while addressing real and prevalent issues. Focus group findings: participants confirmed PLWH continue to experience HIV related stigma in healthcare settings	Sample size Single city implementation Workshop participants were motivated to learn more about HIV stigma Participants were already known to the study team	Level III C: low quality	Batey, D.S., Whitfield, S., Mulla, M., Stringer, K.L., Durojaiye, M., McCormick, L., Turna, B., Nyblade, L., Kempf, M.C. (2016) Adaptati

				<p>particularly in settings outside of HIV primary care</p> <p>stigma related to sexual orientation</p> <p>Stressed importance of educating the secretaries and first points of contact in healthcare settings</p>			<p>on and Implementation of an intervention to reduce HIV-related stigma among healthcare workers in the United States”</p> <p>Piloting if the FRESH workshop. AIDS PATIENT CARE and STD's Vol 30. No 11</p>
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3	<p>Stutterheim, S.E., Sicking, L., Brands, R., Baas, I., Roberts, H., van Brakel, W.H., Lechner, L., Kok, G., Bos, A.E.R. (2014).</p>	<p>Sequential Mixed methods study</p>	<p>342--- returned surveys 262 participants</p> <p>Recruited by DUTCH HIV association</p> <p>Interviews: 22 PLWH</p> <p>Health professionals 14</p> <p>The Netherlands: Outpatient setting</p>	<p>Findings suggest more research and education need to be completed</p> <p>Multilevel interventions that will target both PLWH and healthcare workers</p> <p>Defined gaps in knowledge and care as well as perceived gaps</p>	<p>Predominately gay men participated in study</p>	<p>Level III B: Good quality</p>	<p>Stutterheim, S.E., Sicking, L., Brands, R., Baas, I., Roberts, H., van Brakel, W.H., Lechner, L., Kok, G., Bos, A.E.R. (2014). Patient and Provider Perspectives on HIV and HIV related Stigma in Dutch Healthcare settings. AIDS PATIENT CARE</p>
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							and STD's Vol 28, NO 12
4.	Mak.W.W. S., Cheng S.S.Y., Law, R.W, Cheng, W.W.L., Chan, F. (2015).	Experimental	88 students in health related programs Hong Kong Random assignment to programs	88 students were randomly assigned to two different arms of study (in vivo contact or game based program) Both completed measures of stigmatizing attitudes and HIV/AIDS related knowledge at pre post and one month follow up. Findings showed that the effectiveness of the game based experiential approach to reducing HIV related stigma was similar to that of in vivo	No specific limitations identified by the author, however; further research is needed to explore the potential value of the game based approach to reducing stigma among health professional s.	Level 1 A: High quality	Mak.W. W. S., Cheng S.S.Y., Law, R.W, Cheng, W.W.L., Chan, F. (2015). Reducin g HIV related stigma among health care professi onals: a game based experien tial approac h. AIDS Care, Vol.27.

				contact.			No. 7, 855-859.
5.	Varas-Diaz, N., Neilands, T.B., Rodriguez-Madera, S.L., Padilla, M. (2016)	Experimental	507 second year medical students Puerto Rico	Information about HIV/AIDS had no influence on stigma reduction. These results demonstrate that the provision of HIV/AIDS related information should not be the sole mechanism used in HIV/AIDS stigma-reduction interventions as a mechanism of attitudinal change.	Due to heavy burden placed on medical students in terms of time management and training, there may have been a self-selection bias in the sample.	Level 1 A: High Quality	Varas-Diaz, N., Neilands, T.B., Rodriguez-Madera, S.L., Padilla, M. (2016) The role of emotions in the reduction of HIV/AIDS stigma among physicians in training. AIDS CARE Vol. 28, No.3, 376-383.

6.	Hill, M., Evans, C. (2016).	Systematic review	Systematic review: a total of 9 studies were included England	A systematic review to appraise research to investigate the effectiveness of workplace interventions to reduce HIV-related stigma amongst healthcare providers.	Applying research from different countries can be seen as a limitation as training and education regarding HIV and number of interactions with PLWH differs. Specific interventions differ from country to country.	Level III B: Good Quality	Hill, M., Evans, C. (2016). The effectiveness if workplace interventions to reduce HIV related stigma amongst healthcare professionals
Article #	Author & Date	Evidence Type	Sample, Sample Size, & Setting	Study findings that help answer the EBP Question	Limitations	Evidence Level & Quality	Citation

8.	Vorasane, S., Jimba, M., Kikuchi, K., Yasuoka, J., Nanishi, K., Durham, J., Sychareun, V. (2017)	Non experimental: questionnaire	558 health care workers from 12 different hospitals Lao Peoples democratic Republic	50% of doctors and nurses demonstrated high levels of stigmatizing attitudes towards PLWH. Across all the health professional's lower level of education about HIV was associated with higher levels of stigmatizing attitudes.	convenience sampling method to select participants as a result of which the results might not be generalizable to all healthcare workers and may have led to an under or over-representation of some groups of health workers. A risk of social desirability bias in the doctors' and nurses' responses and thus stigmatizing attitudes could be under	Level III A: High quality	Vorasane, S., Jimba, M., Kikuchi, K., Yasuoka, J., Nanishi, K., Durham, J., Sychareun, V. (2017) An investigation of stigmatizing attitudes towards people living with HIV/AIDS by doctors and nurses in Vientiane, Lao PDR.
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					reported. The questionnaire did not include questions related to knowledge of or perceived capacity to implement universal precautions, which can influence attitudes to working with PLWHA.		BMC Health Services Research (2017) 17:125
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9.	Lut, I. (2017)	Survey	1182 participants completed survey United Kingdom	Studied awareness and appreciation for what it would be like to live with HIV “undetectability”. Analysis of data still shows that stigma is a significant strain.	Since this is a relatively new aspect of HIV more research needs to be done on the concept of undetectability	Level III B: Good quality	Lut, I. (2017) The UK people living with HIV stigma survey 2015. HIV Nursing Vol. 17 49-53.
10.	Dalton, A. (2017)	Expert Opinion	n/a	Exploration of the current growth and impact that HIV medical treatment on persons living longer. HIV stigma is one of the last items to be accepted.	n/a	Level V B: Good quality Used social science background	Dalton, A. (2017) ‘Just take a tablet and you’ll be okay’: medicalization, the growth of stigma and the silencing of

							HIV
11.	Carabini, K. (2017)	Article on HIV stigma	n/a	Highlight the issues of HIV related stigma that remain present despite the fact that HIV is now a chronic illness that is manageable with much improved outcomes.	n/a	Level V B: Good quality Used nursing background and cited case studies and other research to support concepts written	Carabini, K. (2017) Stigma and HIV: the current situation
12.	Kontomanolis, E.N., Michalopoulos, S., Gkasdaris, G., Fasoulakis, Z. (2017).	Expert Opinion	n/a	The purpose of the paper is to summarize the difficulties patients with HIV infection have to deal with, in order to survive and merge into society, identify the main reasons for the low public awareness, discuss the	n/a	Level V B: Good quality	Kontomanolis, E.N., Michalopoulos, S., Gkasdaris, G., Fasoulakis, Z. (2017). The social stigma of HIV–AIDS:

				current situation, and provide potential solutions to reducing the stigma among HIV patients.			society's role. HIV/AI DS - Researc h and Palliativ e Care 2017:9 111–118
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13.	Stringer, K., Turan, B., McCormick, L., Durojaiye, M., Nyblade, L., Kempf, M. -C., Turan, J. (2016).	Questionnaire/survey	651 health workers in Alabama and Mississippi USA	Assessed HIV related stigma in healthcare workers.	Survey was administered only in two southern states, Alabama and Mississippi. A second limitation concerns the online survey response rate and the unknown response rate for one of the recruiting agencies. It is possible that those workers who completed the online survey may differ significantly from those who did not.	Level III B: Good quality	Stringer, K., Turan, B., McCormick, L., Durojaiye, M., Nyblade, L., Kempf, M. -C., Turan, J. (2016). HIV-Related Stigma Among Healthca re Provider s in the Deep South. AIDS & Behavior, 20 (1), 115–125.
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					<p>Low levels of experience with HIV could have influenced findings.</p> <p>Study relied on self-reported attitudes and is therefore subject to reporting bias.</p>		
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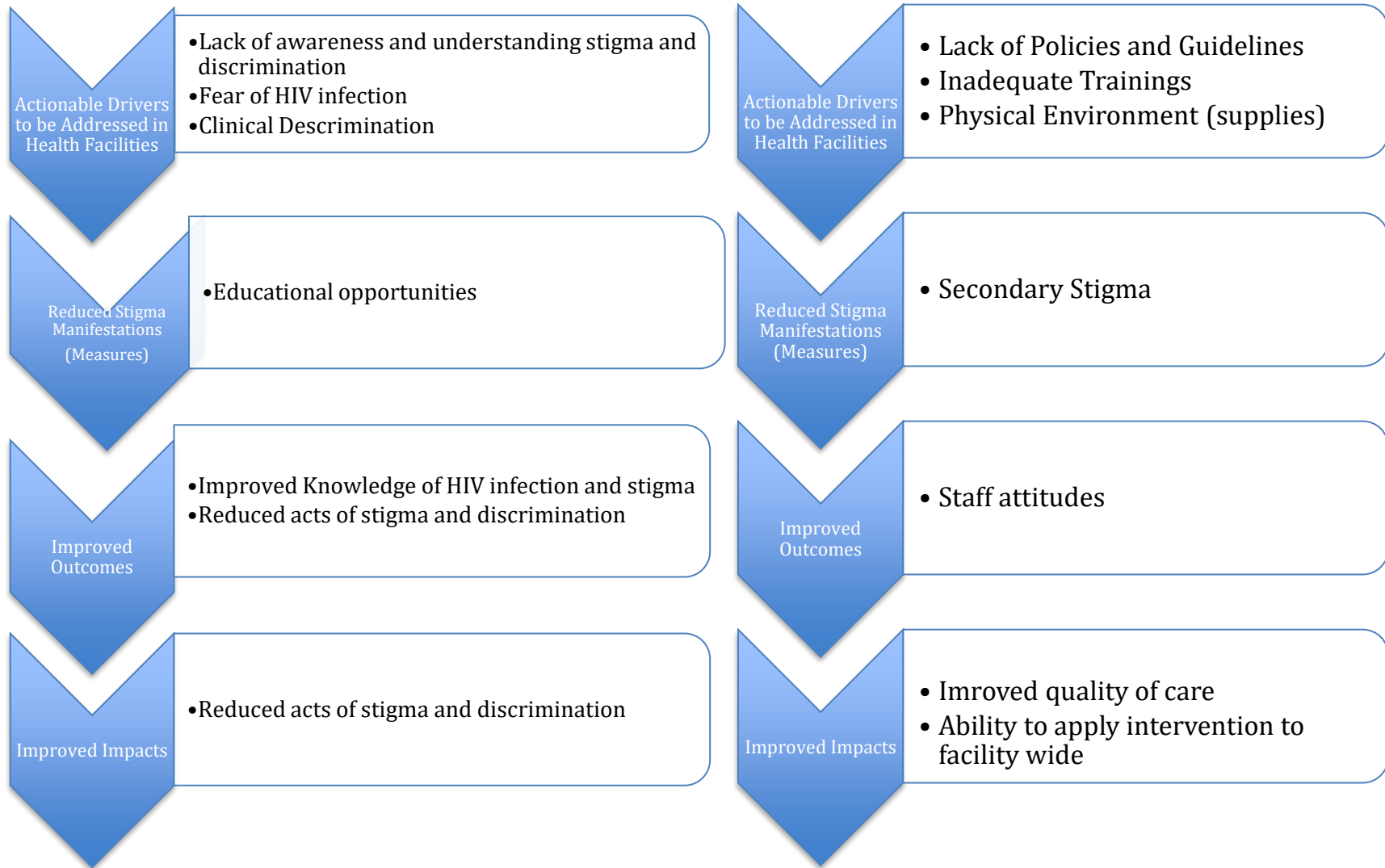
14.	Zukoski AP, & Thorburn S. (2009).	In depth interviews Qualitative Analysis	16 persons with HIV Rural area with low prevalence of HIV United States (3 counties in Oregon)	To explore participants' experience with stigma and discrimination in social and health care settings and their behavioral and emotional responses.	Purposeful sampling strategies, our findings lack generalizability. Study sample was smaller than desired. Primary recruitment source was one physician who provides medical care to the majority of people living with HIV in the three-county area. Another potential limitation is that the topic	Level II A: High quality	Zukoski AP, & Thorburn S. (2009). Experiences of stigma and discrimination among adults living with HIV in a low HIV-prevalence context: a qualitative analysis. AIDS Patient Care & STDs, 23 (4), 267–276.
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					of the interview, particularly in a geographic area with relatively low HIV prevalence, may have affected some people's willingness to be interviewed. Having strong opinions (positive or negative) on the study's topic may also have influenced participation .		
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15.	Schuster, M.A., Collins, R., Cunningham, W.E., Morton, S.C., Zierler, S., Wong, M., Tu, W., Kanouse, D.E. (2005)	In person interviews and structured questions	2,466 HIV-infected adults United States	Study Aim: to determine if HIV infected patients perceive that they have been discriminated against.	Different groups of people perceived discrimination differently. Different points in diagnosis and treatment may affect the association with perception of discrimination	Level II C: Poor quality questionable outcomes	Schuster , M.A., Collins, R., Cunningham, W.E., Morton, S.C., Zierler, S., Wong, M., Tu, W., Kanouse , D.E. (2005). Perceived Discrimination in Clinical Care in a Nationally Representative Sample of HIV-Infected Adults Receiving
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								g Health Care J GEN INTER N MED 2005; 20:807– 813.
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Appendix B: Framework for Action Diagram



(Jain, A., Carr, D., Nyblade, Laura, 2015).

Appendix C: HIV-KQ-18

Please indicate “T” true, F “False”, D “Don’t Know” True False Don’t Know

- | | | | |
|---|---|---|----|
| 1. Coughing and sneezing DO NOT spread HIV | T | F | DK |
| 2. A person can get HIV by sharing a glass of water with someone | T | F | DK |
| Who has HIV? | | | |
| 3. Pulling out the penis before a man climaxes keeps a woman from getting HIV during sex. | T | F | DK |
| 4. A woman can get HIV if she has anal sex with a man. | T | F | DK |
| 5. Showering, or washing one’s genitals/private parts after sex keeps a person from getting HIV. | T | F | DK |
| 6. All pregnant women infected with HIV will have babies born With AIDS. | T | F | DK |
| 7. People who have been infected with HIV quickly show serious signs of being infected. | T | F | DK |
| 8. There is a vaccine that can stop adults from getting HIV. | T | F | DK |
| 9. People are likely to get HIV by deep kissing, putting their tongue in their partner’s mouth, if their partner has HIV. | T | F | DK |
| 10. A woman cannot get HIV if she has sex on her period. | T | F | DK |
| 11. There is a female condom that can help decrease a woman’s chance of getting HIV. | T | F | DK |
| 12. A natural skin condom works better against HIV than a latex condom does. | T | F | DK |
| 13. A person will NOT get HIV if he/she is taking antibiotics. | T | F | DK |
| 14. Having sex with more than one partner can increase a person’s change of being infected with HIV. | T | F | DK |
| 15. Taking a test for HIV one week after having sex will tell a person if she or he has HIV. | T | F | DK |
| 16. A person can get HIV by sitting in a hot tub or a swimming pool with a person who has HIV. | T | F | DK |
| 17. A person can get HIV from oral sex. | T | F | DK |

18. Using Vaseline with a condom lowers the chance of getting HIV T F DK

(Carey, M., Schroder, K., 2008).

Appendix D: HPP HIV Stigma and Discrimination Standardized Questionnaire

Background:

1. What is your current job?
 - a. RN
 - b. MD
 - c. PA/NP/Resident
 - d. Nurses Aid
 - e. Secretary
2. How many years have you worked in healthcare?
3. Did you ever receive training in the following subjects? (select all that apply)
 - a. HIV stigma and discrimination
 - b. Infection control and universal precautions
 - c. Key population stigma and discrimination

Section 2 Infection Control

1. How worried would you be about getting HIV if you did the following?

a. Touched the clothing of a patient living with HIV	Not worried.	A little worried.	Worried.	Very worried.	Not applicable.
b. Dressed the wounds of a patient living with HIV	Not worried.	A little worried.	Worried.	Very worried.	Not applicable.
c. Drew blood from a patient living with HIV	Not worried.	A little worried.	Worried.	Very worried.	Not applicable.
d. Took the temperature of a patient living with HIV	Not worried.	A little worried.	Worried.	Very worried.	Not applicable.
2. 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 patient living with HIV that you do not use with other patients
Yes No Not applicable
3. In the past 12 months how often have you observed the following?
- 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?
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

Section 4: Health Policies

Now we are going to ask about your institutional policies and work environment.

1. In my facility it is not acceptable to test a patient for HIV without their knowledge?
Strongly Agree Agree Disagree Strongly disagree
2. There are adequate supplies in my health facility that reduce my risk of becoming infected with HIV
Strongly Agree Agree Disagree Strongly disagree
3. There are standardized procedures/protocols in my health facility that reduce my risk of becoming infected with HIV
Strongly Agree Agree Disagree Strongly disagree

Section 5: Opinions

Now we are going to ask about opinions related to people living with HIV.

1. Most people living with HIV do not care if they infect other people
Strongly Agree Agree Disagree Strongly disagree
2. People living with HIV should feel ashamed of themselves

- | | Strongly Agree | Agree | Disagree | Strongly disagree |
|--|----------------|-------|----------|-------------------|
| 3. Most people living with HIV have had many sexual partners | | | | |
| | Strongly Agree | Agree | Disagree | Strongly disagree |
| 4. People get infected with HVI because they engage in irresponsible behaviors | | | | |
| | Strongly Agree | Agree | Disagree | Strongly disagree |
| 5. HIV is punishment for bad behavior. | | | | |
| | Strongly Agree | Agree | Disagree | Strongly disagree |

Appendix E: Recruitment Flyer

RUTGERS
School of Nursing

HIV Educational Session

Purpose of Study:

The purpose of this quality improvement project is to improve knowledge in acute care providers regarding HIV and to promote awareness of stigmatizing behaviors.

Topics Presented

1. Overview of HIV and AIDS (including: incidence/prevalence, transmission)
2. Overview of HIV related stigma and discrimination (including health care settings, and PLWH perceptions)
3. How health care workers can help decrease stigmatizing behaviors

This project is being conducted by Catherine Harvey DNP Student at Rutgers University. If there are any questions or concerns, please contact Catherine Harvey at [REDACTED]

When and Where

The educational session will be held in the Brennan 4 Classroom on the following:

January 22nd at 7am

January 25th at 7pm

January 31st at 7am

Appendix F: Definitions from the Health Policy Project (Jain, Carr, & Nyblade, 2015).

Stigma: A social process of devaluing persons, beginning with marking or labeling someone's differences than attributing negative connotation or values to those differences; this process leads to distancing and separation of the person culminating in discrimination.

Anticipated Stigma: Real or imagined fears of societal attitudes and behaviors (e.g., of family members the community, healthcare professionals) if HIV or other behavior (e.g., drug use) is disclosed.

Experienced Stigma: Forms of stigmatizing behaviors or discrimination not typically actionable under law and experienced by people living with HIV or individuals associated with HIV such as family members or healthcare providers.

Perceived Stigma: The perception of how people in one's community feel and react towards people living with HIV.

Secondary stigma: Stigma experienced by individuals associated with people living with HIV (e.g., family, partners, friends, healthcare professionals).

Observed stigma: forms of stigma witnessed by an individual (e.g., a nurse gossiping about a client's HIV status, as seen by a lab technician).

Discrimination: Unfair and unjust treatment of an individual on the basis of a real or perceived status or attribute (e.g., HIV status or association with HIV positive individuals).

Immediately actionable causes of stigma: This includes fear of HIV infection, health facility policies, and attitudes towards PLWH and key populations.

Clinical Discrimination: A difference in care or the way care is delivered or performed due to the diagnosis of HIV; this is also an example of stigmatizing behaviors.

Appendix F: Consent**INFORMATION SHEET FOR PARTICIPATION IN RESEARCH**

You are being asked to participate in a research study conducted by Catherine Harvey BSN, RN from the Rutgers University at [REDACTED]. You are being asked to participate in this study because to assist in a DNP Project. The purpose of this study is to improve knowledge in acute care providers regarding HIV.

Please read the information below and ask questions about anything you do not understand before deciding whether or not to participate. Your participation in this research study is completely voluntary.

If you decide to participate, you will be asked to participate in an anonymous survey through Survey Monkey.

By completing the anonymous survey, you are agreeing to participate in this research study. There are no other alternatives to the study other than not participating. Participation is voluntary and whether you participate or not will not affect your employment in any way. You have the right to decide not to fill out the survey.

Your answers to the survey are anonymous and cannot be linked back to you in anyway. If you do not want to answer a question for any reason you are free to skip it.

There are no foreseeable risk since the survey is anonymous and there will be no way to link your responses to you. In addition, confidentiality will be protected through Survey Monkey's encryption. This allows the survey link and survey pages to be encrypted during transmission to the participants. All responses will be reported as aggregated data only.

The results of this study will be used to build effective educational services for acute care providers on the topic of HIV.

If you have any questions, concerns, or complaints about the research please contact Catherine Harvey. She will be glad to answer any of your questions. Catherine Harvey's number is [REDACTED]

If you have questions about your rights as a research participant, or concerns or complaints about the research, you may contact the [REDACTED]

[REDACTED] You may also call this number in the event the research staff cannot be reached or you wish to talk to someone else.

In addition, you may also call the [REDACTED]
to anonymously report any concerns you have related to the Study or research.

Thank you for considering participating in this study. If you decide to participate, please keep this sheet and retain for your records.

Catherine Harvey BSN, RN
Principal Investigator



INFORMATION SHEET FOR PARTICIPATION IN RESEARCH

You are being asked to participate in a research study conducted by Catherine Harvey, RN, BSN from the Rutgers University at [REDACTED]. You are being asked to participate in this study to assist in a DNP Project. The purpose of this quality improvement project is to improve knowledge in acute care providers regarding HIV.

Please read the information below and ask questions about anything you do not understand before deciding whether or not to participate. Your participation in this research study is completely voluntary.

If you decide to participate, you will be asked to take answer a brief questionnaire before and after an educational session.

By completing this questionnaire you are agreeing to participate in this research study. There are no other alternatives to the study other than not participating. Participation is voluntary and whether you participate or not will not affect your position at [REDACTED] in any way. You have the right to decide not to participate in the questionnaire.

Your answers to the questionnaire are anonymous and cannot be linked back to you in anyway. Please do not print your name on the survey if you decide to participate. If you do not want to answer a question for any reason you are free to skip it.

There is no more than minimal risk to persons participating in this project where the magnitude of harm or discomfort anticipated are not greater, in and of themselves, than those ordinarily encountered in daily life.

All participants in this study will be informed that participation in the project involves no more than minimal risk, is confidential and voluntary. There are also no direct benefits other than contributing to the body of knowledge about HIV. There are no foreseeable risks since the survey is anonymous and there will be no way to link your responses to you. All responses will be reported as aggregated data only.

The results of this study will be used to build effective educational services for acute care providers on the topic of HIV.

If you have any questions, concerns, or complaints about the research please contact Catherine Harvey. She will be glad to answer any of your questions. Catherine Harvey's number is [REDACTED]

If you have questions about your rights as a research participant, or concerns or complaints about the research, you may contact the [REDACTED]. You may also call this number in the event the research staff cannot be reached or you wish to talk to someone else.

In addition, you may also call the [REDACTED] to anonymously report any concerns you have related to the Study or research.

Thank you for considering participating in this study. If you decide to participate, please keep this sheet and retain for your records.

Catherine Harvey, BSN, RN
Principal Investigator

Appendix G: Evaluation Questions

1. Do you agree your knowledge has improved about HIV infection after this education?

Disagree Agree

2. How likely are you to share something you gained from this education with a colleague?

Not Likely Likely

3. How likely are you to change your practice based on this education?

Not Likely Likely

Appendix H: Demographics

interdisciplinary participant group (Table 1.1)		
	n	% of Group
Nurses Aid / PCT / Tech	2	4.6%
PA/NP/Resident	7	16.2%
RN	33	76.7%
Secretary	1	2.3%
Total	43	100%

Range in years (Table 1.2)		
	n	% of Group
0 - 5 Years	9	20.9%
11 - 20 years	9	20.9%
6 - 10 Years	19	44.2%
GT 20 years	6	14.0%
Total	43	100%

Appendix I: Self-Reported Fear of HIV

A.

How worried are you to: Touch Clothing (Table 1.3)					
	Not Worried	A Little Worried	Total	Not Worried	A Little Worried
Nurses Aid / PCT / Tech	2		2	4.8%	0.0%
PA/NP/Resident	7		7	16.7%	0.0%
RN	21	11	32	50.0%	26.2%
Secretary	1		1	2.4%	0.0%
Total	31	11	42		

How worried are you to: Touch Clothing (Table 1.4)					
	Not Worried	A Little Worried	Total	Not Worried	A Little Worried
0 - 5 Years	4	4	8	9.5%	9.5%
11 - 20 years	6	3	9	14.3%	7.1%
6 - 10 Years	15	4	19	35.7%	9.5%
GT 20 years	6		6	14.3%	0.0%
Total	31	11	42		

B.

How worried are you to: Dressed wounds (Table 1.5)									
	Not Worried	A Little Worried	Worried	Very Worried	Total	Not Worried	A Little Worried	Worried	Very Worried
Nurses Aid / PCT / Tech		2			2	0.0%	4.9%	0.0%	0.0%
PA/NP/Resident	2	3	1	1	7	4.9%	7.3%	2.4%	2.4%
RN	8	12	7	3	30	19.5%	29.3%	17.1%	7.3%
Secretary	1				1	2.4%	0.0%	0.0%	0.0%
(Blank)	1				1	2.4%	0.0%	0.0%	0.0%
Total	12	17	8	4	41				

How worried are you to: Dressed wounds (Table 1.6)										
	Not Worried	A Little Worried	Worried	Very Worried	Total	Total	Not Worried	A Little Worried	Worried	Very Worried
0 - 5 Years		2	3	1	6	15.0%		5.0%	7.5%	2.5%
11 - 20 years	2	4	2	1	9	22.5%	5.0%	10.0%	5.0%	2.5%
6 - 10 Years	7	8	2	2	19	47.5%	17.5%	20.0%	5.0%	5.0%
> 20 years	2	3	1		6	15.0%	5.0%	7.5%	2.5%	
Total	11	17	8	4	40					

C.

How worried are you to: Drew blood (Table 1.7)		
Not Worried	11	26.2%
A Little Worried	18	42.9%
Worried	8	19.0%
Very Worried	5	11.9%
Total	42	

How worried are you to: Drew blood (Table 1.8)									
	Not Worried	A Little Worried	Worried	Very Worried	Total	Not Worried	A Little Worried	Worried	Very Worried
Nurses Aid / PCT / Tech		2			2	0.0%	4.9%	0.0%	0.0%
PA/NP/Resident	2	2	1	2	7	4.9%	4.9%	2.4%	4.9%
RN	7	14	7	3	31	17.1%	34.1%	17.1%	7.3%
Secretary	1				1	2.4%	0.0%	0.0%	0.0%
Total	10	18	8	5	41				

How worried are you to: Drew blood (Table 1.9)									
	Not Worried	A Little Worried	Worried	Very Worried	Total	Not Worried	A Little Worried	Worried	Very Worried
0 - 5 Years		2	4	1	7	0.0%	4.9%	9.8%	2.4%
11 - 20 years	2	4	2	1	9	4.9%	9.8%	4.9%	2.4%
6 - 10 Years	6	9	2	2	19	14.6%	22.0%	4.9%	4.9%
>20 years	2	3		1	6	4.9%	7.3%	0.0%	2.4%
Total	10	18	8	5	41				

D.

How worried are you to: Take the Temperature						
	Not Worried	A Little Worried	Total	Not Worried	A Little Worried	Grand Total
Nurses Aid / PCT / Tech	2		2	5%	0%	5%
PA/NP/Resident	6	1	7	14%	2%	17%
RN	25	7	32	60%	17%	76%
Secretary	1		1	2%	0%	2%
Total	34	8	42			

Appendix J: Stigmatizing Behaviors**B.**

Wear Double Gloves?		
Yes	10	23.8%
No	33	78.6%
Total	42	

Wear Double Gloves?	YES	NO	Total	YES	NO
Nurses Aid / PCT / Tech		2	2	0.0%	4.8%
PA/NP/Resident	1	6	7	2.4%	14.3%
RN	9	23	33	21.4%	54.8%
Secretary		1	1	0.0%	2.4%
Total	10	32	42		

Wear Double Gloves?	YES	NO	Total	YES	NO
0 - 5 Years	2	6	8	5%	14%
11 - 20 years	3	6	9	7%	14%
6 - 10 Years	4	15	19	10%	36%
>20 years	1	5	6	2%	12%
Total	10	32	42	24%	

D.

Use any special infection control procedures?		
Yes	9	27.3%
No	33	78.6%
Total	42	

Use any special infection control procedures? (Table 2.0)					
	Yes	No	Total	Yes	No
Nurses Aid / PCT / Tech		2	2	0.0%	4.8%
PA/NP/Resident		7	7	0.0%	16.7%
RN	9	22	33	21.4%	52.4%
Secretary		1	1	0.0%	2.4%
Total	9	32	42		

Use any special infection control procedures? (Table 2.1)					
	Yes	No	Total	Yes	No
0 - 5 Years	3	5	8	7.3%	12.2%
11 - 20 years	5	4	9	12.2%	9.8%
6 - 10 Years	1	17	18	2.4%	41.5%
GT 20 years		6	6	0.0%	14.6%
Total	9	32	41		

3.

Witnessed: Healthcare workers unwilling to care			
1	32	74.4%	Never
2	9	20.9%	Once or twice
3	2	4.7%	Several times
Total	43		

Witnessed: Healthcare workers talking badly			
1	23	53.5%	Never
2	15	34.9%	Once or twice
3	5	11.6%	Several times
Total	43		

Witnessed: Healthcare workers providing poorer quality			
1	31	72.1%	Never
2	11	25.6%	Once or twice
3	1	2.3%	Several times
Total	43		

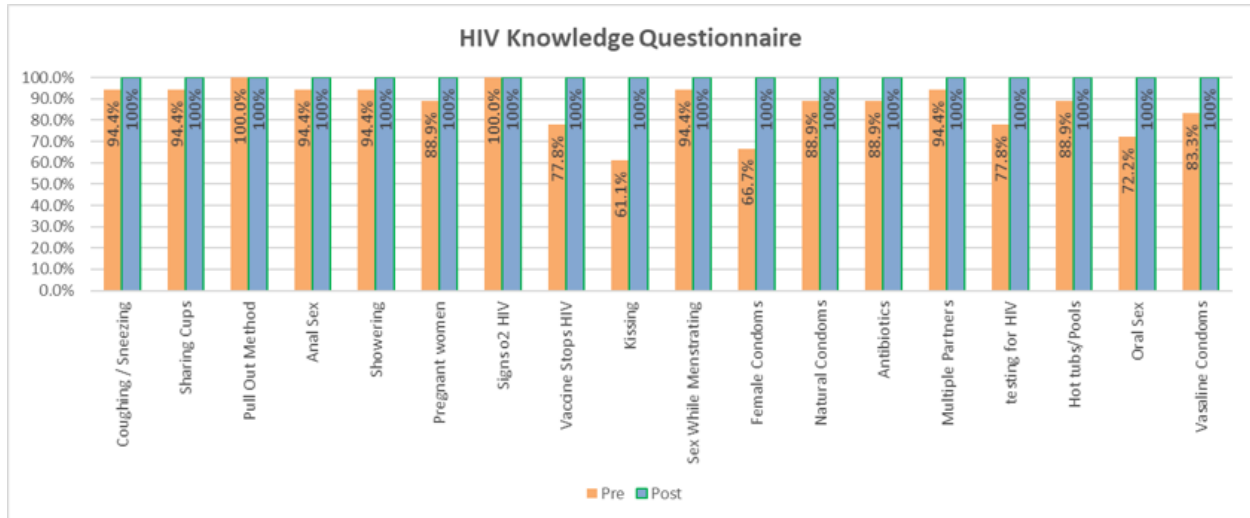
Appendix K: Attitudes Towards PLWH

Most people living with HIV do not care if they infect other people		
Agree	3	7.1%
Disagree	23	54.8%
Strongly Disagree	16	38.1%
Total	42	

People living with HIV should feel ashamed of themselves		
Agree	4	9.5%
Disagree	16	38.1%
Strongly Disagree	22	52.4%
Total	42	

Most people living with HIV have had many sexual partners		
Agree	3	7.3%
Disagree	28	68.3%
Strongly Disagree	10	24.4%
Total	41	

HIV is punishment for bad behavior		
Disagree	9	21.4%
Strongly Disagree	33	78.6%
Total	42	

Appendix L: Knowledge of HIV

Appendix M: PRISMA Diagram



PRISMA 2009 Flow Diagram

