

Understanding Perception of Sex Workers About Sexual Transmitted Diseases Using Health Belief Model: A Proposal

Ismail O. Suleiman

(University Library, Sokoto State University, Nigeria)

ABSTRACT: This paper discusses Health Belief Model (HBM) as a theoretical framework that can be used to understand the perception of sex workers about sexually transmitted diseases. The motive is to enable Health Information providers to come up with health information programs that will eradicate or optimally reduce the spread of sexually transmitted diseases. To achieve this motive the paper described sexually transmitted diseases, discusses health ontology and health epistemology, and also examines perceptions of sex workers about sexually transmitted diseases. It adopts Health Belief Model as a theoretical framework and the premises of the theory were explained which include: Perceived Susceptibility, Perceived Severity, Perceived Benefit, Perceived Barrier, Cues to Action, and Self Efficacy. Finally, the paper discusses how the premises of the theory can be applied to explain the perception of sex workers about the Sexually transmitted disease.

Key Words - Perception, Sex Worker, Sexual Transmitted Diseases, Health Belief Model

I. INTRODUCTION

Sexually transmitted diseases (STDs) also known as sexually transmitted infections (STIs) are life-threatening diseases, they are infections transmitted from an infected person to an uninfected person through sexual contact (National Institute of Allergy and Infectious Diseases, 2018). More than 30 different bacteria, viruses, and parasites can be transmitted through sexual activity and many times STIs initially do not cause symptoms. This results in a greater risk of passing the disease on to others. Worldwide, an estimated 498 million cases of chlamydia, gonorrhea, syphilis, and trichomoniasis occur each year (Weston and Workowski, 2018). Some STIs increase the risk of HIV transmission during unprotected sexual contact and lead to complications, such as pelvic inflammatory disease (PID), infertility, ectopic pregnancy, miscarriage, fetal death, and congenital infections (World Health Organization, 2018).

To minimize the risk of complications from sexually transmitted diseases, scholars have explored the problem of sexually transmitted diseases from the medical perspective (Talimi and Samain, 2016, Brackbill, Maya and Fishbein, 1998) while the medical perspective has helped in introducing and advocating for condom use and other preventive methods to reduce the rate of infection, however the rate of infection still on the rise (Weston and Workowski, 2018, Hoover, 1996). To ameliorate the rate of infection of sexually transmitted diseases among sex workers there is a need to explore the problem of sexually transmitted diseases from how sex workers understand sexually transmitted diseases in a socio-cultural context. Understanding the context and situation of sex workers has the potential of designing health information programs that will discourage sex workers from partaking in sexual business and also reduce the rate of infection of sexually transmitted diseases (Weaver, 2015, Archibong, 2016). This paper claims that to reduce the number of sex workers and also reduce the rate of sexually transmitted diseases, there must be a proper understanding of the context and situation of sex workers especially their health ontology and health epistemology of sexually transmitted diseases.

II. HEALTH ONTOLOGY AND HEALTH EPISTEMOLOGY

Ontology is the philosophical study of being in general or of what applies neutrally to everything real (Simon 2018). While Martinich and Stroll (2019) state that epistemology is the philosophical study of the nature, origin, and limits of human knowledge. Health Ontology and Health Epistemology refer to health worker's and non-health worker's knowledge, attitudes, and associated behaviors which pertain to health-related topics such as diseases, their prevention, and treatment (Encyclopedia of Medical Concept, 2012).

Ontology and epistemology are one of the most successful ways of representing actionable knowledge in biomedicine. Two of the reasons for this success are their ability to capture biomedical knowledge in a formal but simple, powerful, and incremental manner, and their easy application in the reasoning processes performed by medical decision support systems (Riano, et al 2012).

III. PERCEPTION OF SEX WORKER

Sex work is "the exchange of sexual services, performances, or products for material compensation. It includes activities of direct physical contact between buyers and sellers as well as indirect sexual stimulation. In essence, a sex worker is a person who is employed in the sex industry. The term is used about all those in all areas of the sex industry, including those who provide direct sexual services as well as the staff and management of such industries (Curtis, 2017). (Sprinkle Nd) identify various types of sex workers as prostitution, phone sex operation exotic dancing, lap dancing, webcam modeling, pornographic film, nude peepshow performing, producers and directors of adult films, manufacturers and sellers of a sex toy, and managers in exotic dance clubs, etc.

The risk of HIV and other sexually transmitted diseases is high among persons who exchange sex for money or nonmonetary items (Center for Diseases Control and Prevention, 2018). For instance, on average, sex workers are 13 times more likely to become infected with HIV than adults in the general population. Globally sex workers make up 9% of the total number of new HIV infections. In Africa for instance, in countries like Swaziland, Lesotho, Malawi, South Africa and Zimbabwe more than 50% of sex workers are living with HIV (Global information and education on HIV and AIDS, 2018). In Nigeria, female sex workers account for about 20% of new HIV infections (Eluwa, Strathdee, Adbajo, and Ahonsi 2012). Hence this paper called for investigating the perception of sex workers regarding sexually transmitted diseases using the Health Belief Model.

IV. HEALTH BELIEVE MODEL (HBM)

Health Beliefs Model was originally developed in the 1950s, and updated in the 1980s by Godfrey Hochbaum, Irwin Rosenstock, and Stephen Kegels. It is one of the most widely used models for understanding health behaviors. Key elements of the Health Belief Model focus on individual beliefs about health conditions, which predict individual health-related behaviors Rural Health Information 2019, Boskey, 2019). The model is based on the theory that a person's willingness to change their health behaviors is primarily due to the following premises.

Perceived Susceptibility: Perceived susceptibility refers to the likelihood of getting a disease or condition. Thus, the HBM predicts that individuals who perceive that they are susceptible to disease will engage in behaviors that would help reduce the risk of developing the disease while those who perceived they are not susceptible to disease will not engage in a behavior that will reduce the risk of developing the disease Champion & Skinner (as cited in Louis, 2016).

Perceived Severity: Perceived severity refers to the feeling of the seriousness of contracting the disease or leaving it untreated. The HBM suggests that the more serious that individuals perceive a health problem is, the more likely they will engage in behaviors to prevent it from occurring or reduce its severity also the less serious that individuals perceive a health problem is, the less likely they will engage in behaviors to prevent it from occurring or reduce the severity Champion & Skinner, (as cited in Louis, 2016).

Perceived Benefit: Perceived benefits refer to an individual's assessment of the value of engaging in a health-promoting behavior to decrease the risk of disease. The HBM proposes that the more benefits that individuals perceive that a particular action will have regarding a perceived threat, then the more likely they will engage in that behavior regardless of objective facts regarding the effectiveness of the action Champion & Skinner (as cited in Louis, 2016).

Perceived Barriers: Perceived barriers refer to potential complications involved with a particular health action. They are factors that act as impediments to undertaking recommended behaviors. The HBM suggests that the perceived benefits must outweigh the perceived barriers for behavior change to occur Champion & Skinner (as cited in Louis, 2016).

Cues to Acton: Cues to action refer to the internal or external cues that prompt the action. The HBM theorizes that a cue, or trigger, is necessary for promoting engagement in health-promoting behaviors. Internal cues can be physiological such as pain, whereas external cues can be an event or a billboard sign Champion & Skinner (as cited in Louis, 2016).

Self-efficacy: Self-efficacy refers to an individual's perception of his or her competence to successfully perform a behavior. The HBM recognizes that confidence in the individual's ability to effect change in outcomes is crucial to health behavior change Champion & Skinner (as cited in Louis, 2016).

V. HEALTH BELIEF MODEL AND SEXUAL TRANSMITTED DISEASES

The Health Belief Model (HBM) is a tool that scientists use to try and predict health behaviors (Boskey, 2019). Similarly, Resource Center for Adolescent Pregnancy Prevention (2019) elucidates that The Health Belief Model has been applied to a variety of health education topics including sexuality education. They explained further that since the HBM is based on motivating people to take action, it can be a good fit for sexuality education programs that focus on: Primary prevention — for example, programs that aim to prevent pregnancy, sexually transmitted diseases (STIs), and HIV by increasing condom use, and Secondary prevention — for example, programs that aim to increase early detection of STIs or HIV to reduce their spread via unprotected intercourse and to ensure the early treatment of the conditions.

Therefore, the premises of the model can be used to understanding the perception of sex workers on sexually transmitted diseases and also help health information programmers in designing health information programs that will reduce the spread of sexually transmitted diseases within a context. The premises of the health belief model and how each is used to explain sexually transmitted diseases are discussed below

Perceived Susceptibility is the person's assessment of the likelihood of them getting the given condition. For instance, if a sex worker belief that sexually transmitted diseases those not exist or are diseases that do not affect his race, he might not feel susceptible to sexually transmitted diseases or engage in preventive behavior. Thereby continue to engage in sex work and activities that put others at risk of the diseases. Therefore, Scholars who are interested in why the spread of sexually transmitted diseases can ask the following question: What are the beliefs of sex workers regarding the existence of sexually transmitted diseases? What are the perceptions of sex workers regarding the likely hood of being infected with sexually transmitted diseases?

The premises of Perceived Severity reflect a person's view of how severely they would be impacted if they were affected by the condition. In essence, the lack of knowledge regarding the horrific condition of sexually transmitted diseases might cause sex workers not to seek to be screened for sexually transmitted diseases and also continue to engage in risky behavior. Hence, health information designers applying the construct of perceived severity can ask the following question: What knowledge those sex workers have about the horrific consequences of sexually transmitted diseases? How do horrific consequences of sexually transmitted diseases affect the sexual activities of sex workers?

Perceived Benefit is the belief in how effective the medical advice or action will be in mitigating the problems of the condition considered in Severity. For example, If if a sex worker believes that abstains from sex or getting screened for Sexually transmitted diseases can help increase early detection and consequently reduce morbidity, he will more likely have the intent to abstain or screen for sexually transmitted diseases. However, if the sex workers believe that abstinence or screening for sexually transmitted diseases is not so beneficial, he is less likely to utilize the screening tools. Scholars, who are interested in reducing the spread of sexually transmitted diseases can ask the following questions: How do sex workers value abstinence in protecting sexually transmitted diseases? What are the perceptions of sex workers regarding screening for sexually transmitted diseases? And how do sex workers view safe sex practice?

Another premise in reducing sexually transmitted diseases is Perceived Barriers, this is the person's perceptions of the difficulties they would encounter in taking the proposed medical actions, Perceived barriers includes both physical and psychological barriers. Main while, most sex workers in third world countries mostly give financial barrier as an excuse to engage in sex work, however, the sex workers must believe that it is worthwhile for him or her to go through any hurdle in order to abstain from sex work and seek to be screened for sexually transmitted diseases. If sex workers believe otherwise, the intent to abstain from sex work or screen for sexually transmitted diseases will simply disappear. This premise will help us to find answers to the following questions: What are the challenges sex workers encounters in an attempt to abstain from sex work? What challenges hinder sex workers in engaging in sexually transmitted diseases screening programs?

To understand the perception of a sex worker on sexually transmitted diseases Cues to Action is very significant. Cues to Action are the prompts that are needed to move the person into the state where they are ready to take the prescribed action. These can include practical ways of nudging them, such as marked calendars, email reminders, how-to charts, and so on. For example, if a sex worker's close relative is diagnosed with HIV, this sexual worker is more likely to have the intent to screen soon for HIV and may likely avoid sex for money habit. Likewise, if there is no physical reality, he is less likely to have the intent to screen for HIV and may not likely reduce sex for money habit. Hence, scholars who are interested in why sex money habits can apply the premise to ask the following questions: What are the factors that encourage sex for money attitude? What are those factors that can discourage sex for money habit among sex workers? What factor can encourage sex abstinence in a particular setting?

The last premise is Self-Efficiency; this is the person's confidence and belief in their own ability to take the given action. In essence, if a sex worker feels confident that he can avoid sex for money habit or he/she can go through the process of getting screened for HIV, then he/she is more likely to go through with it. This premise will help us find answers to question like: What are the activities that can discourage sex workers

from engaging in sex for money habits? What factor can shape the belief of sex worker's confidence to engage in activities that discourage sex for money habit?

VI. CONCLUSION

Those who exchange sex more regularly as a source of ongoing income are at higher risk for HIV than those who do so infrequently (Center for Diseases Control and Prevention, 2018). Similarly, Global information and education on HIV and AIDS, (2018) clarify that sex workers are 13 times more at risk of HIV compared with the general population, due to an increased likelihood of being economically vulnerable, unable to negotiate consistent condom use, and experiencing violence, criminalization, and marginalization. They explained further that where HIV prevention programs are available they are generally well-received; however, sex workers often face many barriers in accessing them. Hence, this paper calls for use of Health Belief Model Premises such as Perceived Susceptibility, Perceived Severity, Perceived Benefit, Perceived Barrier, Cues to Action and Self Efficacy to understand the perception of sex workers on sexually transmitted infections in order to come up with sexually transmitted disease prevention programs and services that are sex-worker led and community-based that will be effective in the legal and social barriers that affect sex workers.

REFERENCES

- [1] National Institute of Allergy and Infectious Diseases (2015) Sexual Transmitted Diseases. Retrieved from <https://www.niaid.nih.gov/diseases-conditions/sexually-transmitted-diseases>.
- [2] Weston, E and Workowski K (2018) Infectious Diseases Related to Travel. Retrieved from <https://wwwnc.cdc.gov/travel/yellowbook/2018/infectious-diseases-related-to-travel/sexually-transmitted-diseases>
- [3] World Health Organization (2018) Report on global sexually transmitted infection surveillance. Retrieved from <https://www.who.int/reproductivehealth/publications/stis-surveillance-2018/en/>
- [4] Talimi, S.M, and Samani O.R (2016) Breach of Confidentiality in Sexually Transmitted Diseases from the Perspective of Consequential and Deontological Philosophical Schools. *Journal of Medical Ethics*, 10(37): 69-79.
- [5] Hoover, J.L (1996) Behavior and Attitudes Related to the Prevention of Sexually Transmitted Disease and Unplanned Pregnancy (Doctoral Dissertation) Western Michigan University. Retrieved from <https://scholarworks.wmich.edu/cgi/viewcontent.cgi?article=2698&context=dissertations>
- [6] Weaver, R.D (2015) An Assessment of Sexually Transmitted Disease Knowledge Among 7th Grade Students. Published Dissertation) Walden University. Retrieved from https://scholarworks.waldenu.edu/cgi/viewcontent.cgi?referer=https://r.search.yahoo.com/_ylt=AwrC_BxigGFc8jsAGJcPxQt.;_ylu=X3oDMTBydWNmY2MwBGNvbG8DYmYxBHBvcwM0BHZ0aWQDBHNIYwNzcg/RV=2/RE=1549922530/RO=10/RU=http%3a%2f%2fscholarworks.waldenu.edu%2fcgi%2fviewcontent.cgi%3farticle%3d1609%26context%3ddissertations/RK=2/RS=_WpsmC_BT8E FKzXqUmZPs2LiZsY-&httpsredir=1&article=1609&context=dissertations.
- [7] Archibong, M.A (2016) Perceptions about Sexually Transmitted Diseases in the Akwa Ibom State of Nigeria: A Qualitative Study of Young Adults Age 18â??24. Retrieved from https://scholarworks.waldenu.edu/cgi/viewcontent.cgi?referer=https://r.search.yahoo.com/_ylt=AwrC_BxigGFc8jsAGTcPxQt.;_ylu=X3oDMTByNXM5bzY5BGNvbG8DYmYxBHBvcwMzBHZ0aWQDBHNIYwNzcg-/RV=2/RE=1549922530/RO=10/RU=http%3a%2f%2fscholarworks.waldenu.edu%2fcgi%2fviewcontent.cgi%3farticle%3d3620%26context%3ddissertations/RK=2/RS=a.6xNqCqdNPUnl23NMrMjXxHhKo-&httpsredir=1&article=3620&context=dissertations
- [8] Simon, P.M (2018) Ontology Metaphysics. Retrieved from <https://www.britannica.com>
- [9] Martinich, A.P and Stroll, A. (2019) Epistemology Philosophy. Retrieved from <https://www.britannica.com/topic/epistemology>
- [10] Encyclopedia of Medical Concept (2012) Ontology and Epistemology of health; Retrieved January 1st, 2019 from <http://www.reference.md/files/D007/mD007722.html>
- [11] Riano, D., Real, F., Vallverdu, L.A., Campana, F., Ercolani, S., Mecocci, P., Annicchiarico, R., and Caltagirone, C. (2012) An ontology-based personalization of health-care knowledge to support clinical decisions for chronically ill patients. *Journal of Biomedical Informatics*. 45(3): pp249-446. doi.org/10.1016/j.jbi.2011.12.008
- [12] Curtis, M.G (2017) SEX WORKER AND PROUD: A PHENOMENOLOGICAL STUDY OF CONSENSUAL SEX WORKERS' LIVES. Retrieve from <https://digitalscholarship.unlv.edu/cgi/viewcontent.cgi?article=4126&context=thesisdissertations>
- [13] Center for Diseases Control and Prevention (2018) HIV Risk Among Persons Who Exchange Sex for Money or Nonmonetary Items. Retrieved from <https://www.cdc.gov/hiv/group/sexworkers.html>

- [14] Global information and education on HIV and AIDS (2018). Sex Workers, HIV and AIDS. Retrieved from <https://www.avert.org/professionals/hiv-social-issues/key-affected-populations/sex-workers>
- [15] Eluwa, G.I., Strathdee, S.A., Adbajo., S. and Ahonsi B. (2012) Sexual Risk Behaviors and HIV among Female Sex Workers in Nigeria. Journal of Acquired Immune Deficiency Syndromes. 61(4). DOI: [10.1097/QAI.0b013e31826dfb41](https://doi.org/10.1097/QAI.0b013e31826dfb41)
- [16] Rural Health Information Hub (2019) Health Belief Model. Retrieved from [HTTPS://www .rural healthinfo.org/toolkits/health-promotion/2/theories-and-models/health-belief](https://www.ruralhealthinfo.org/toolkits/health-promotion/2/theories-and-models/health-belief)
- [17] Boskey, E. (2019) Health Belief Model: Use of a Condom May Hinge on your Perceived Risk of STDs. Retrieved from <https://www.verywellmind.com/health-belief-model-3132721>
- [18] Louis, J.P. (2016) EXAMINING CONSTRUCTS OF THE HEALTH BELIEF MODEL AS PREDICTORS OF HAITIAN MEN'S INTENTION REGARDING PROSTATE CANCER SCREENING (Published Dissertation) Barry University
- [19] Resource Center for Adolescent Pregnancy Prevention (2019) Theories and Approaches: The Health Belief Model and Sexuality Education. Retrieved from [HTTP:// recap.etr.org/recap /index.cfm?fuseaction=pages.TheoriesDetail&PageID=345](http://recap.etr.org/recap/index.cfm?fuseaction=pages.TheoriesDetail&PageID=345)
- [20] BrakbillMaya, R.M and Fishbein S.M (1998) Where do People Go for Treatment of Sexually Transmitted Diseases. DOI: <https://doi.org/10.1363/3101099>
- [21] Sprinkle, A. (Nd) Providing education opportunity for sex workers. Retrieved from <http://anniesprinkle.org/phd-dissertation-educating-sex-workers/>