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Determinants Model in Reducing HIV-Related Stigma in Health care Workers: A Systematic Review

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Abstract

BACKGROUND: The stigma accepted by people living with HIV/AIDS (PLWHA) is a major obstacle in HIV prevention, especially from health workers.

AIM: This study aims to determine the factors associated with HIV stigma among health workers.

METHODS: This systematic review was conducted using the 2015 PRISMA guidelines. All publications review was conducted using four bibliographic databases. In the final screening stage, the authors read the full text of the remainder of the article and held back studies that were consistent with inclusion criteria, focusing on HIV-related stigma determinants published in 2010–2020.

RESULTS: The stigma that comes from health workers to PLWHA can come from personal beliefs or a lack of personal confidence, which can be derived from self-confidence, self-confidence, knowledge, working time, institutional support or policies from the workplace, religious, and sociocultural values that create discriminatory behavior when dealing with PLWHA. The created stigma can reduce social interactions and the quality of life of PLWHA.

CONCLUSION: It is important to find determinants to formulate appropriate intervention plans in reducing HIV-related stigma, especially among health workers.

Introduction

HIV/AIDS prevalence globally is still rather high [1], [2]. The World Health Organization (WHO) data mention around 54% of HIV-positive cases were new cases [3], [4].A myriad of efforts was done to reduce HIV/AIDS cases [5], however, stigmas are still an important aspect and often become the main hurdle in reducing HIV/AIDS cases [6], [7], [8], [9].

Stigmas on people living with HIV/AIDS (PLWHA) not only occur from common society members but also occur on health care workers [7]. This is in conjunction with the research result done by Nyblade *et al*., 2018, which stated that health care workers have a stigma and differentiates PLWHA. On health-care facilities, the manifestation of the stigma was widely documented [10], from direct rejection of treatment, below standard treatment, verbal and physical abuse, to a more soft form of rejection such as making them wait longer or surrenders the care to the more junior member of the health-care team [11]. It can be concluded that stigma is the main obstacle in treating those who are seeking preventive measure and to uphold their own quality of life [6]. Therefore, there needs to be a comprehensive and holistic care in the HIV/AIDS epidemic which can cause a bad impact not only on health sector but also socioeconomical development of a nation [12].

Methods

Search strategy

Search is conducted using online journal database which provides articles in PDF format such as PubMed, Scinapse, Elsevier, and Google Scholar. Articles taken were imported into Mendeley Library. Main keywords used during the search process are HIV* and Stigma* And Health care Workers* And Risk Factor* OR Determinant.

Inclusion/Exclusion criteria

Criteria that were integrated in the database are (1) focus on stigma determinant related to HIV,

(2) published in the past 10 years (2010–2020), and (3) articles full text published in English. Exclusion criteria are (1) Review/Editorial (2) Conference Process (3) Systematic Review/Literature Review (4) Protocol Study, and (5) Meta-Analysis.

Data extraction

The study selection process is in accordance with Data Extraction Based on PRISMA 2015 Guidelines in Figure 1.

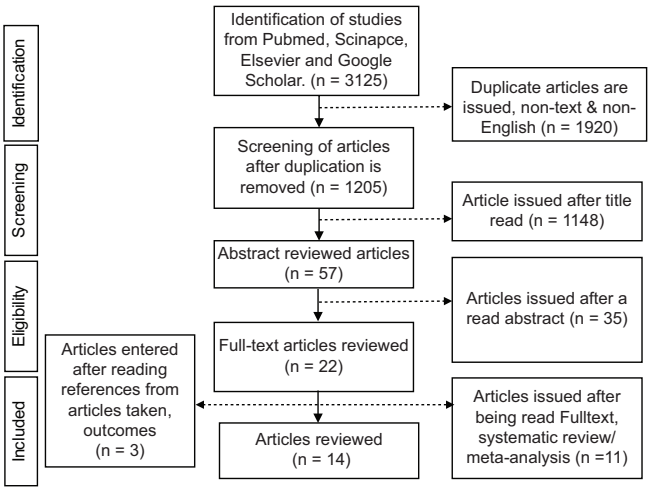

Figure 1: Flowchart literature

Data synthesis

Author filters all publication by reading the title and abstract. In the final filtering phase, author reads the complete text of the remaining articles and withholds the study which is in line with inclusion criteria. The summary of the selected articles is recorded which consists of; author, year of publication, country of publication, title, subject/sample, study objective, study design, outcome/ results, and determinants of stigma (Table 1).

Literature search

The literature was accessed by identifying articles based on inclusion and exclusion criteria. This review article was compiled thematically using PRISMA 2015 because is the right method for filtering articles to be compiled in a systematic system consisting of various studies that have relevant methods, concepts, and results.

Results and Discussion

A total of 3125 articles are taken from four data basis. After the deletion of duplicated, 1205 articles were withhold. Based on the inclusion and exclusion criteria, 57 articles were selected. Manual bibliographical reference search of articles identified three extra articles so in total of 14 articles were reviewed. Table 1 shows research synthesis on determinant model in reducing HIV-related stigma on health care workers.

Stigma and discrimination on health care workers

Stigma and discrimination are not only carried out by ordinary people who do not have sufficient knowledge about HIV/AIDS, but can also be carried out by health-care providers. According to research by Wilandika (2019), the stigma associated with HIV in health services can hinder PLWHA from seeking care if they have previously experienced unwanted treatment or the confidentiality of their HIV status is not respected. The emergence of stigma against PLWHA in health services is closely related to the attitudes and behaviors shown by health workers in providing health services, be they nurses, doctors, or other health workers [23].

Nyblade's (2019) study shows that there is a decrease in professional attitudes among health-care providers who care for patients with HIV infection. The stigma that occurs in the health-care environment is a serious problem in the health-care system. If a patient is infected with HIV and feels stigmatized by health workers, it can affect the quality of care, the patient's quality of life, and involvement in the care process [24]. The following summary on determinant related stigma on health care workers at Table 2.

The occurrence of stigma against PLWHA by health workers is influenced by several things according to the research that was reviewed as follows:

Knowledge of HIV/AIDS

Knowledge of HIV/AIDS greatly influences how individuals behave towards people with HIV/ AIDS [25]. Stigma and discrimination against PLWHA arise in relation to ignorance or misunderstanding of the mechanisms of HIV transmission, overestimation of the risk of contracting HIV through casual contact, and disproportionately negative attitudes toward social groups affected by the HIV/AIDS epidemic [26], [27]. In line with research conducted by Vorasane (2017) which states that across health professionals, lower levels of HIV/AIDS knowledge are associated with higher levels of stigmatizing attitudes toward PLWHA [7].

Perceptions about PLWHA

Perceptions of people living with HIV or people with AIDS will greatly influence how that person will behave and behave toward PLWHA [14], [19]. Subedi (2019) states that stigma and discrimination against PLHIV are related to the perception of shame and

Table 1: Research synthesis on determinant model in reducing HIV-related stigma on health care workers

No.	Author/year/place	Subject/sample	Study objective	Study outcome/result
1	Tran *et al*., 2019. Vietnam [8]	1016 patients	Grades the stigmatization and discrimination that is experienced by people living with HIV (PLWHA) in multitudes of settings such as social, family, community, and health-care facility in Vietnam	Stigma level from society or community reported by PLWHA is linked with socioeconomical status whereas stigma in health-care facility is reported based on knowledge and attitude of the health care workers
2	Xie *et al*., 2018. China [13]	63 medical staff with 2 weeks interval; and structural validation with 349 medical staff from 52 hospitals	The purpose of this research is to validate the stigma scale on HIV/AIDS health-care providers between medical staff in China	Stigma was insignificantly different ($p > 0.05$) in terms of gender, career (physician and nurses), level of education, and whether or not the person in question has treated AIDS. There were connections between culture, level of education, career, gender, and knowledge regarding HIV/AIDS in China
3	Nair*et al*., 2019. Bihar, India [14]	71 participants, including 35 individuals infected with HIV and member of society and 26 health-care providers	To grade attitudes regarding individual infected with HIV between health-care providers and members of society	Several factors which contribute to stigma on health care workers: Perception regarding HIV; the disclosure of HIV status without consent; and inadequate knowledge and fear between the health-care providers in regard to the infection of HIV and also the policy in health facilities
4	(Yang *et al*., 2018). United States [15]	558 health care workers from 12 of the 17 hospitals in Vientiane	To grade HIV-related stigma between health-care providers in Laos and examine the related factors in HIV/AIDS stigma between physician and nurses	Lower HIV/AIDS-related knowledge in relations with higher stigma level with individuals infected with HIV/AIDS. Stigmatized treatment, fear of AIDS, and prejudice were observed to be lower in health care workers with more experience in treating patients with HIV/AIDS
5	Befekadu *et al*., 2017. South Africa [11]	16 participants are PLWHA that is treated in two selected hospitals in Amhara region in Ethiopia	To explore factors that are caused by stigma and discrimination to people infected with HIV in two hospitals in rural Ethiopia	Participants viewpoints are grouped into fear of contact, slow service, below standard treatment, rejection of treatment, rudeness of the health-care providers, secrecy offence, and bad follow-up for patient infected with HIV
6	Prinsloo *et al*., 2017. South Africa [16]	110 Health care Workers	To determine the size of the stigma and discrimination in relation with HIV/AIDS (SAD) and factors that are affecting health-care settings	Stigma to patient from health care workers participating in the training (OR = 13.46, p = 0.005). In the 2nd hospital, only infection risks are felt to have a significant effect on stigma
7	Jabbour *et al*., 2018. South Carolina [17]	1747 members of congregation faith-based African-American organization	To examine the connections between social factors in a religion-based settings (including religiousness and proximity with individuals infected with HIV/AIDS) and HIV stigma	Female ($p = 0.001$), higher education ($p < 0.001$), knowing someone with HIV/AIDS ($p = 0.01$) and knowing someone who is gay ($p < 0.001$), lack of religiousness is linked with a lower level of stigma and lower chances of stigma ($p < 0.05$)
9	Vorasane, 2017. Laos [7]	558 health care workers from 12 of the 17 hospitals in Vientiane	The purpose of this study was to assess HIV stigmatizing attitudes within Laotian health-care service providers and examine some of the factors associated with HIV/AIDS-related stigma among doctors and nurses	Across the different health professionals included in this study, lower levels of HIV/AIDS knowledge were associated with higher levels of stigmatizing attitudes toward people living with HIV/AIDS. Stigmatizing attitudes, including discrimination at work, fear of AIDS, and prejudice, were lower in health care workers with more experience in treating HIV/AIDS patients
10	Opollo and Gray, 2015. Kenya [18]	76 HIV-infected health care workers in Kisumu, Kenya	Study explored stigma as perceived, experienced, and managed in HIV-infected health care workers in Kisumu, Kenya	Two negative themes (blame, lack of knowledge) and five positive themes (living positively, optimism, empathy, support, and changes overtime). Three themes emerged on reducing stigma (normalizing, empowerment, leading by example). Three themes emerged on reducing stigma (normalizing, empowerment, leading by example)
11	Nina Sommerland, 2019. South Africa [19]	882 HCWs from eight hospitals was surveyed in the Free State, South Africa	This study explored factors associated with HIV stigma toward colleagues	There was a significant negative relationship between stigmatizing attitudes against other co-workers and knowing a colleague living with HIV, having a colleague who worked to reduce stigma in the workplace, and having basic HIV knowledge. Our results have implications for understanding and crafting interventions to reduce HIV stigma among HCWs
12	Fauk, 2021. Yogyakarta. Indonesia [20]	Using in-depth interviews with 92 PLWHA (52 women, 40 men) and 20 health-care providers	This paper describes perspectives and personal experiences of the 20 health-care providers, relating to HIV stigma and discrimination toward PLWHA in both study settings	Some health-care providers reported that they had personally stigmatized and discriminated against PLWHA. A lack of knowledge about HIV, fear of contracting HIV, personal values, religious thoughts, and sociocultural values and norms were reported as drivers or facilitators behind this HIV-related stigma and discrimination
13	Reyes-Estrada *et al*., 2018. Puerto Rico [21]	This study inducted 40 in-depth interviews with nurses who provided services to PWHA	This study aimed to explore the role of religion in the stigmatization of PWHA by nurses in Puerto Rico	Three main factors emerged in the analysis as contributors to HIV/AIDS stigmatization: (1) Nurses' personal religious experiences, (2) religion as a rationale for HIV-related stigma, and (3) religious practices during health care delivery. The results show that religious beliefs play a role in how nurses understood HIV/AIDS and provided service
14	Xie *et al*., 2019. China [22]	349 medical Staff from 52 hospitals	The study aimed to validate the health-care provider HIV/AIDS stigma scale among medical staff in China	The discrimination factor showed identical means between Canadian medical students and Chinese medical staff, while the prejudice and stereotype factors had higher mean scores in the Chinese sample. The three-factor structure of health-care provider HIV/AIDS stigma scale was confirmed in Chinese medical staff with a simpler solution. This could provide a basis for trans-cultural application and comparison

blame associated with AIDS [19], [28]. The results of Masoudnia's (2015) study show that there is a significant negative correlation between citizen awareness about HIV/AIDS, HIV-related attitudes, negative perceptions of people with HIV/AIDS symptoms, and discriminatory attitudes toward PLWHA ($p < 0.01$) [29].

Level of education

Chambers (2015) states that the type of health worker according to their educational background affects the stigma and discrimination scores against PLWHA [25]. Another study also stated that educational attainment (F statistic: 13.8; 4 df; $p < 0.001$) was associated with stigma scores after controlling for all confounding variables. The results of statistical analysis showed that there was no significant relationship between education and stigma among PLWHA [17]. In the learning process, all nurses and midwives are equipped with knowledge and skills according to professional competencies/ standards, especially in providing services to PLWHA. However, the reality is that after they graduate and get a diploma, they are not automatically able to enter the ministry [18], [20].

Length of work

The length of time a health worker works or does a certain type of work are stated in the length of time he/she performs the task. The development of behavior and attitudes of health workers in decision-making

Table 2: Summary on determinant related stigma on health care workers

Author/years/country	Design study	Determinant stigma
Tran *et al*., 2019. Vietnam [8]	Bivariate and multivariate logistic regressions.	Socioeconomy status, knowledge, and attitude
Xie *et al*., 2018. China [13]	Multivariate and logistic regression analysis	Culture, education level, gender, and knowledge regarding HIV/AIDS.
Nair *et al*., 2019. Bihar, India [14]	Multivariate logistic regression analysis	Perception in regards to HIV; disclosure of HIV status without consent; policy or institutional support.
(Yang *et al*., 2018). United States. [15]	Multivariate double regression linear analysis	Knowledge, prejudice, fear, and working time.
Befekadu *et al*., 2017. South Africa [11]	Multivariate logistic regression	Fear and working time.
Prinsloo *et al*., 2017. South Africa [16]	Quasi-experimental design on two groups.	Training
Jabbour *et al*., 2018. South Carolina [17]	Logistical regression.	Gender, education, and religiousness
Vorasane, 2017. Laos. [7]	The study is a cross-sectional survey.	Fear infection HIV/institutional support or standard operating procedures (SOP)
Opollo and Gray, 2015. Kenya [18]	Bivariate and multiple linear regression analyses	Knowledge and attitude, fear, and working time.
Sommerland, 2019 South Africa [19]	Mixed methods study	Blame, lack of knowledge, normalizing, and empowerment
Fauk, 2021. Yogyakarta. Indonesia [20]	Multigroup structural equation modeling	Knowledge and attitude
Reyes-Estrada *et al*., 2018. Puerto Rico [21]	A qualitative framework analysis	Knowledge and attitude, sociocultural values, and religion
Xie *et al*., 2019. China [22]	Exploratory study using qualitative techniques	Religious
Tran *et al*., 2019. Vietnam [8]	Logistics regression	Cultural

and health service behavior requires work experience so that it can lead to high self-confidence [15]. The duration of work affects the occurrence of stigma and discrimination because someone who has worked for a long time tends to have broader insight and more experience, where this plays an important role in changing the behavior of a health worker [24].

Training

A training intervention provided to health workers resulted in increased knowledge of HIV/AIDS and increased workers' willingness to provide health services [11]. Training of health workers on HIV/AIDS resulted in not only increased knowledge about HIV/AIDS but also improved attitudes toward PLWHA [7]. In addition, external factors such as experience in participating in HIV training, attending workshops, activeness in participating in organizations, and activeness in accessing information such as from the internet, television, newspapers, radio, and other social networks will also contribute to the emergence of attitudes and characters of nurses and midwives related to stigma in PLWHA [30].

Institutional support

Institutional factors or health service institutions such as hospitals, primary health-care services, and clinics influence the existence of stigma and discrimination against people with HIVAIDS (PLWHA), including matters related to policy-making, standard operational procedure, provision of facilities, facilities, materials, and personal protective equipment in the treatment of HIV/AIDS patients [31]. Research on the influence of institutional or institutional factors is still rarely conducted when in fact it is very important to legally intervene in the existence of stigma and discrimination against PLWHA by health workers [14], [24].

Religious

Religion plays an important role in stigmatizing behavior among health workers. Religious thought in Islam and Catholicism that prohibits the use of illegal drugs, sexual relations outside of marriage and considers it as a sin also facilitates stigma and discrimination against HIV by health-care providers. The use of such thinking as a parameter to assess the behavior of PLWHA causes the reluctance of health-care providers to serve, interact, and feel disgusted with HIV patients [21]. This supports the findings of a previous study which reported that the inclusion of personal religious beliefs in the provision of health to PLWHA led to clashes between personal religious values and professional expectations [20].

Sociocultural values

Community stigma against PLWHA is an assessment that is based on values and norms that are rooted in society. Cultural understanding of disease, fear of disclosure is rooted in cultural responses to epidemic disease. Sociocultural values and norms that do not accept same-sex relationship and perceive it as deviant and contaminated behavior also affect participants' acceptance of HIV-positive patients, treatment, and perceptions of PLWHA or facilitate HIV stigma and discrimination against PLWHA in health-care centers. The sociocultural values possessed by health workers are the driving force for discriminatory and stigmatizing attitudes and behavior toward PLWHA. Values of fidelity in marriage and not accepting cheating behavior in PLWHA who are married because it is considered painful for their partner are some examples of personal values held by some participants in research [20] that supports their discriminatory behavior toward PLWHA. The personal values held by these health workers also seem to lead to a personal assessment that PLWHA deserves infection as a consequence of their own behavior. The assessment appears to strengthen participants' discriminatory treatment of HIV patients [22].

Conclusion

Stigma is still an important issue in the prevention and control of HIV/AIDS. Determinant

factors that influence HIV-related stigma among health workers are knowledge of HIV/AIDS, perceptions of PLWHA, education level, length of work, training, institutional support, religious, and sociocultural values.

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