Normalization of Negative Stigma Against HIV/AIDS Patients: A Systematic Review of the Literature

Muhammad Himawan Sutanto[1*], Muslimin Machmud[2], Salahudin[3]

Communication Science Study Program, Universitas Muhammadiyah Malang, Indonesia[1,2]
Department of Government Studies, Universitas Muhammadiyah Malang, Indonesia[3]

Email: himawansutanto@umm.ac.id,machmudmus@umm.ac.id, salahudinmsi@umm.ac.id

Abstract

Human Immunodeficiency Virus (HIV)/Acquired Immunodeficiency Syndrome (AIDS) is a public health problem that stigmatizes its victims. Mental attacks, as a result of labeling and discrimination, result in psychological suffering and well-being for persons living with HIV/AIDS (PLWHA), necessitating adequate treatment. Thus, it is critical for this research to undertake a systematic assessment of scientific articles on Negative Stigma Against People Living with HIV/AIDS. This study used a descriptive analysis approach to examine publications containing the terms HIV/AIDS stigma that were published in the Scopus database between 2011 and 2018. The data is then processed and visualized using Vosviewer software, and the results show the four most dominant concepts studied by the previous author, namely human, female and human immunodeficiency virus infection. The contribution of this research is to become a reference to find out the root of the problem and the harmful impact of stigmatization on people with HIV/AIDS to help formulate recommendations for prevention and treatment that can be done (normalization). However, this research is limited because the data source only comes from Scopus. Therefore, to produce a comparative, broad, and comprehensive analysis, further studies need to include sources of other reputable international journals such as the Web of Science (WoS).

Keywords: *Normalization, negative stigma, ODHA, Systematic Literature Review*

Introduction

The discussion of stigma originates with Goffman's famous work (Goffman, 1986), as defined in (Nobre et al., 2017), which defines stigma as "a highly criticized feature" that helps to discredit the person suffering it in the eyes of society. (Goffman, 1986) contends that stigmatized individuals are perceived as possessing undesirable characteristics. Unwanted differences contribute to increased stigma in the context of HIV because they are frequently connected with unsafe sex, drug use, or both, which are frequently seen as socially stigmatized activities. Stigma associated with the Human Immunodeficiency Virus (HIV) is defined as negative attitudes, beliefs, and sentiments. Stigma and prejudice are context-dependent and manifest themselves in a variety of ways, including through individuals, families, communities, health care systems, and the media. Additionally, they face violence and the loss of their homes and economic assistance(George, 2019).

People living with HIV/AIDS were stigmatized early on because of terms like "gay-related immune deficit" and "gay cancer" that were used as descriptors in the media. In the early days of HIV/AIDS, a generation of gay men was wiped out, leaving the disease with a stigma that has not faded. Big racial and class inequalities were evident in the prevalence of HIV/AIDS in the second decade. HIV is now a manageable, chronic, but untreatable condition thanks to effective medication. HIV patients are viewed as deviant, immoral, infectious, and guilty as a result. Stigma surrounding HIV/AIDS is a constant source of anxiety and depression for those living with the virus. Because HIV stigma is associated with significant levels of social isolation and loneliness, this population has an elevated risk of developing depression (Porter et al., 2017).

A public health issue in culturally diverse communities is stigma and prejudice in healthcare settings, which may have a negative impact on mental and physical health. The public's perspective of migrants and HIV, the fear of contamination, and institutional policies dealing with HIV were identified as the main sources of stigma and prejudice (Arrey et al., 2017). Stigma can have a negative impact on mental health and well-being. People with HIV are more likely to have psychological illnesses, which can have a negative impact on their quality of life and stigma. High levels of stigma and lack of mental health resources are related with HIV in a socio-cultural environment (Rasoolinajad et al., 2018).

According to Vorasane et al. (2017), the stigma associated with HIV/AIDS continues to affect persons living with HIV/AIDS' health and well-being. Reduced understanding is frequently related with more stigmatizing views toward people living with HIV/AIDS. Additionally, this stigmatized attitude adds to the loss of prevention, education, and treatment options for persons living with HIV/AIDS and undermines efforts to manage and prevent the spread of HIV/AIDS. Rice et al. (2018) also expressed regret for the negative stigma associated with HIV/AIDS. This remark is based on personal experience with negative stigma having an effect on depressed symptoms and posing a barrier to those living with HIV/AIDS adhering to antiretroviral medication (ART). Thus, non-adherence to therapy may result in a decrease in the frequency of visits by people living with HIV/AIDS.

In support of the preceding assertion, Varas-daz et al. (2017) suggest that negative stigma against individuals with disabilities has a detrimental effect on the treatment process for people living with HIV/AIDS and the process of HIV/AIDS testing, as well as on access to excellent health services. Stigma and prejudice have a detrimental effect on the health of HIV/AIDS patients. It is a significant barrier to health service utilization, resulting in deteriorating health conditions and indirectly contributing to disease spread—people living with HIV/AIDS face a variety of types of stigma and prejudice that harm their health. As a result, the community need a behavior change communication program (George, 2019).

Another effect of stigma against PLWHA is an increased risk of suicide. Suicidal conduct is more prevalent in people living with HIV/AIDS (PLWHA) than in the general population. Mental health problems have steadily surfaced as a serious issue among PLWHA in recent years, and these disorders can lead to suicide ideation, resulting in increased mortality. HIV/AIDS has been identified as a possible predictor of suicide conduct by experts (Wang et al., 2018). Additionally, PLWHA are affected by the disease and face significant psychological stress, economic difficulty, and social discrimination as a result of the condition, which frequently results in severe psychosocial health problems, particularly those connected to mental health. Mental health issues can have a detrimental effect on treatment, adherence, and the prognosis of HIV infection.

The intersectionality approach is considered critical for examining research on stigma, discrimination, oppression, and dominance. This assertion is based on experience (Algarin et al., 2019), which indicates that the interaction of race and ethnicity is highly associated with the presence of stigma against people living with HIV/AIDS. As a remedy, he stated that the intersectionality approach was found to be capable of reducing stigma for persons living with HIV/AIDS and improving their quality of life. According to Mak et al. (2017), HIV stigma reduction initiatives generally resulted in a minor improvement in HIV-related knowledge and attitudes toward HIV-positive individuals. This is positive because it demonstrates quantitatively that HIV stigma can be decreased through a variety of program components and delivery approaches.

HIV-related stigma is associated with decreased likelihood of initiating and maintaining ART, as well as with inadequate ART adherence. Thus, treatments should aim to alleviate HIV-related stigma and address depression in order to maximize the advantages of antiretroviral therapy (ART) in women living with HIV (Logie et al., 2018). Prior research has shown that increased perceived stigma among HIV-positive women is related with significant declines in all parameters of quality of life. Thus, more efforts should be made to alleviate perceived stigma and improve these patients' quality of life (Zarei, Joulaei, and Fararouei, 2017).

A study by Li et al. (2016) says stigma is also a problem for men. They say that HIV-positive men in China often have poor mental health. People who have HIV are more likely to have psychological problems (like depression) if they are stigmatized. It's likely that the situation for people who are gay or have a disability will get even worse because they have to deal with a lot of social stigma. Self-stigma happens when people internalize prejudice, stereotypes, and discrimination against them. HIV-related self-stigma is linked to depression and other health problems and behaviors, like not taking their medication, in people who have HIV.

Takada et al. (2019) said that stigma about HIV can have a big impact on the physical and social well-being of people who have HIV, as well as community involvement in health testing, treatment, and prevention. So, interventions to reduce stigma should be aimed at both the individual and the group level. In addition, stigma-reduction interventions should encourage people in the community to talk to people who have HIV. It could help people who have HIV not only by having public health campaigns and policies in place that encourage people to be smart about telling people about their HIV status, but also their peers, who might be more positive about HIV because of this.

People who have HIV often feel disappointment, sadness, fear, hopelessness, lack of awareness, and pain. This is because they have the virus. Sometimes, a diagnosis can make people depressed and cut them off from other people. Socio-cultural and environmental factors play a role in people's acceptance of the diagnosis. (Z. Li et al., 2018) say that a better understanding of how people in the general population feel about HIV-related stigma is needed to help people with HIV and AIDS get the care they need and improve their overall health. Wang et al. (2018) say that HIV/AIDS is a very stigmatized long-term disease, and that HIV infection is a stressful and traumatic experience that can have bad physical and mental effects on people.

Literature Review

Stigmatization of HIV/AIDs

People with HIV/AIDS face stigma for the rest of their life. There is a strong link between social stigma and familial stigma, according to (Arias-colmenero, Ma, and Jes, 2020): emotions of prejudice against persons living with HIV/AIDS, which leads to social isolation of those who suffer from it. As a result, women are reluctant to have diagnostic tests performed for fear of being stigmatized and socially isolated as a result of the results. For protection and to avoid discrimination and prejudice, stigma induces serological silence. The HIV-infected person feels emancipated and accepted when their serological status is revealed to close family members or friends. However, some families want to keep this information private so as not to be judged by others, such as their neighbors, who may not be aware of the situation. Antiretroviral therapy adherence improves as a result of the family's acceptance of the sickness.

Most HIV-positive and AIDS-afflicted people experience these feelings towards themselves as well as toward those around them. These folks frequently worry about spreading the disease to their loved ones or others around them. In other cases, they even go so far as to utilize special dishes for other family members or take extreme pains to maintain proper hygiene. A conviction that the sickness is a heavenly punishment for their recent dangerous activity also causes them to feel shame and remorse. This can lead to social isolation and retirement from social circles for people with HIV/AIDS because they believe that they are unrecognized and undesired by society.

HIV-related stigma refers to the shame or embarrassment associated with the disease, which manifests itself through negative societal reactions toward those afflicted with the virus. Stigma can be physical, psychological, or internalized. Perceived stigma refers to the anticipation of negative perceptions prior to their occurrence, which frequently results in limited disclosure out of fear of rejection. Stigma is what occurs as a result of discrimination and social rejection. Internalized stigma has a detrimental effect on an individual's self-image and psychological worth. Internalization of either predicted or experienced stigma results in negative self-perceptions, feelings of inferiority, guilt, and disclosure fears for PLWHA (Darlington and Hutson, 2016).

According to Lifson et al. (2013), many HIV/AIDS patients prefer not to be identified as receiving HIV care at a nearby clinic by neighbors or acquaintances; instead, they travel to larger, more congested tertiary hospital clinics where they are less likely to be noticed. However, distance to these clinics can be a significant obstacle to treatment retention, particularly for rural residents and those with limited transportation resources. Additionally, PLHIV reports that a lack of personal or social support from family, friends, and community members is a barrier to maintaining care and adhering to ART, whereas strong and regular support facilitates retention. According to some individuals, admitting their HIV status to family or friends typically resulted in more social support, albeit challenging at first.

Mental Management Model for People with HIV/AIDS

The CHHANGE community, the subject of Frye et al. (2017) research, serves as a vehicle for empowering and reducing negative stigma against persons living with HIV/AIDS and other types of discrimination such as homophobia, as well as increasing access to HIV/AIDS prevention and treatment. The community engages in a variety of activities, including seminars and training sessions with residents, companies, and community-based organizations, hosting discussion agendas, setting up "pop-up" locations on the street, and presenting advertising campaigns at city bus stops. Interventions aimed at reducing HIV/AIDS stigma are primarily focused on education and information, advocating changes in attitudes and values, increasing interaction with persons living with HIV/AIDS, and activities aimed at reducing stereotypical prejudice and forms of prejudice.

Li et al. (2018) conducted a conversation between persons living with HIV/AIDS (PLWHA) and leaders from various service sectors in the African/Caribbean, Asian, and Latino communities about the difficulties and options for reducing HIV stigma and building community resilience. 66 persons living with HIV/AIDS and ethnic-racial leaders from the religious, media, and social justice sectors participated in two stigma reduction training programs: Acceptance Commitment Therapy Training and Social Justice Capacity Building. For one year, participants' attitudes and behaviors were monitored, as well as their actual involvement in HIV prevention, support for PLHAs, and stigma reduction activities. The CHAMP findings indicate that the intervention was effective at reducing HIV stigma and increasing participants' willingness to engage in positive social change.

Additional social support can help alleviate stigma and improve one's mental health and overall quality of life. This intervention appears to have the potential to enhance HIV care adherence and routine usage, as well as public perceptions of people living with HIV. Health care providers should also consider patients' psychological needs and urge patients to communicate with them. Training programs in communication skills for Iranian healthcare practitioners may be a developing issue in Iran that warrants additional investigation. Psychosocial interventions help persons living with HIV overcome HIV-related stigma, address psychiatric problems, and create social support (Rasoolinajad et al., 2018).

According to (Parcesepe et al., 2019), HIV/AIDS-related stigma has been linked to a lower quality of life for those living with HIV/AIDS. Internalized stigma is inextricably linked to poor mental health, including depressive symptoms and emotional well-being. Thus, the requirement for psychosocial interventions to prevent or mitigate the impact of internalized and anticipatory stigma can help enhance the Health-Related Quality of Life (HRQoL) of HIV-infected individuals. Anti-stigma activities at the community level are equally necessary and useful for HIV-positive women. Social cohesion and support interventions may be a promising technique for reducing the detrimental impact of internalized stigma on the quality of life of people living with HIV/AIDS.

Knowledge can help people better understand a patient's problems and give them better (psychosocial) care. Thus, (Nobre et al., 2017) emphasizes the importance of strengthening social networks, empowering people with the knowledge and skills to help them talk about HIV with their families or trusted friends, and setting up psychosocial support structures, which can also include economic opportunities, such as referrals. As a way to help people living with HIV/AIDS feel less stigmatized, get a job, and improve their quality of life.

Stigma is a significant issue for persons living with HIV/AIDS (PLWHA) and has a significant influence on their health and family members. Psychoeducation was the most frequently used approach, while others, such as support interventions aimed at adherence to antiretroviral therapy, psychotherapy, narrative interventions, and community participation interventions, were less frequently used and replicated in the area of HIV/AIDS-related self-stigma reduction interventions. The trial demonstrated a tendency toward promising efficacy for a subset of PLWHA and their family members. The major strategy is psychoeducational intervention. The findings emphasize the importance of expanding therapies aimed at family members of PLWHA (Ma, Chan, and Yuen, 2018).

The association meta-analysis revealed that those who perceived high levels of HIV-related stigma were twice as likely to be late for HIV care than those who reported low levels of stigma. Conclusion High stigma associated with HIV has an effect on timely presentation for HIV care. To minimize people presenting late for HIV care owing to fear of stigma, health practitioners should play a critical role in educating and counseling patients about the benefits of early HIV testing and treatment. Additionally, systems integration and tracking of positive cases following HIV testing should be enhanced. Finally, frequent HIV testing campaigns, including house-to-house visits, should be conducted to address the issue of persons who refuse to be tested out of fear of negative results or stigma (Gesesew et al., 2017).

Despite HIV's prominent identity, it appears as though social support acts as a buffer and promotes good well-being. Promoting the value of a strong social support system can help individuals who work with PLWHA overcome some of the negative consequences of stigma. Additionally, offering knowledge and access to online support groups can contribute to the development of networks that improve outcomes for people living with HIV (Brener et al., 2019).

According to Gurnani et al. (2011), the primary concerns of FSW are stigma, discrimination, violence, harassment, and social justice issues. This paper demonstrates that it is possible to address these broader structural concerns as part of a large-scale HIV prevention campaign. While assessing the impact of structural interventions on reducing HIV vulnerability is challenging, addressing the broader structural factors that contribute to FSW vulnerability is critical for empowering these vulnerable women to adopt the safer sexual behaviors necessary to effectively respond to the HIV epidemic. Additionally, he lobbied government officials to recognize HIV/AIDS as an economic, social, and development concern, and he urged political leaders to incorporate HIV/AIDS issues into all government programs.

According to Asekun-Olarinmoye et al. (2013), despite widespread awareness of HIV/AIDS and understanding of transmission channels, many respondents had negative attitudes regarding PLWHA and their reproductive and sexual rights. These findings show that initiatives to decrease HIV/AIDS stigma should prioritize the sexual and reproductive health rights of HIV-infected women and men. Additionally, misconceptions concerning certain modes of transmission persist. The need for policy guidelines to be redirected to combat community stigma and prejudice towards PLWHA must be addressed. Additionally, stigma reduction efforts must address knowledge gaps, such as fear of casual contact and transmission by mosquitoes. Increasing community understanding of PLWHA's reproductive health rights is also critical, particularly in rural regions. Health policies and services are required to protect the reproductive rights of people living with HIV in countries where the virus is prevalent.

Several times, efforts have been made to curb and prevent the spread of HIV/AIDS.

For example, doing a medical examination followed by treatment if the examination reveals a favorable outcome. However, the goal of universal "test and treat" can never be fully realized if testing stays unacceptably low, particularly in rural regions where HIV is becoming more prevalent. Seventy percent of those who had never been tested expressed interest in receiving an HIV test if provided. Despite widespread recommendations that all individuals be tested for HIV, approximately half of adults in this remote town never are. HIV testing programs should incorporate steps to overcome stigma/discrimination and knowledge gaps, such as the benefits of early diagnosis and treatment (Lifson, Demisse, et al., 2013).

Previous Studies on HIV/AIDS Stigma

Travaglini, Himelhoch, and Juan (2018) report that black women living with HIV/AIDS had the greatest infection increase rate in the United States. Stigma was found to be significantly connected with a poorer state of mental health. They experienced more stigma, had more substantial psychological difficulties (especially trauma experiences and symptoms), had more trouble coping with their HIV-positive status, and perceived less social support than males with HIV/AIDS. This condition is predicated on the idea that black women have a combination of individual, relational, and contextual risk factors that increase their risk of developing HIV. Additionally, the additional responsibility and possible strain associated with caring for children and other family members can have a substantial impact on black women's capacity to cope with and adjust to an HIV diagnosis.

As forced migrants, refugees' mental health is harmed by a variety of stresses, including racial discrimination, HIV-related stigma, particularly from health professionals, loneliness, and relocation challenges. This is a particularly vulnerable demographic, as they may face socioeconomic and gender disparities, racial discrimination, and HIV-related stigma, including in health care settings. All of these factors endanger public health by preventing persons from accessing necessary health/mental health care. IDPs with HIV/AIDS, regardless of their situation, have received no psychological therapies, and their health care has been limited to managing physical symptoms of HIV. Additionally, displaced women living with HIV should have a vote in care decisions and be included in programs that support their mental health, integration, and overall social rehabilitation (Vitale and Ryde, 2018).

Many people in Ethiopia's rural communities still believe that HIV is linked to shame or blame, or that those living with HIV would be ostracized or discriminated against. Stigma surrounding the virus can be a deterrent to those seeking care and those who are already infected. As a result of the negative cycle of stigma, people who identify as PLWHA are unable to tell their friends, family, or society about their status, and our findings imply that this lack of interaction just serves to amplify the stigma. Programs aimed at reducing stigma must address information gaps such as the fear of casual contact transmission, a lack of awareness of medical interventions that can help prevent HIV illness, and community-based attitudes about the need of supporting and demonstrating compassion for PLWHA. Many training methods are available, each tailored to the intended audience (including gender, educational level, ethnicity), with the ability to ask questions and participate in interactive discussions; and the Ethiopian community dialogue program is one of these methods (Lifson et al., 2012)

Numerous research have established a link between stigma and poor adherence to antiretroviral medication (ART), mental health issues such as loneliness, melancholy, and anxiety, failure to disclose HIV status, and poor overall health outcomes. It is commonly known that socio-demographic variables such as age, gender, marital status, educational achievement, socioeconomic status, and location of residence all influence HIV-related stigma. Rural areas are more affected by the HIV epidemic than metropolitan areas, owing to difficulty in receiving antiretroviral medicine and logistical obstacles in accessing clinical care. Current research indicates that people living with HIV/AIDS face moderate to high levels of HIV-related stigma, with younger people and those infected opportunistically facing the greatest levels of stigma. As a result, stigma reduction initiatives are necessary in this vulnerable group, and such programs would benefit from enhanced support services for disabled individuals (Z. Li et al., 2018).

Turan et al. (2016) emphasize the importance of developing a better knowledge of how various stigma mechanisms affect outcomes and the mediation pathways involved in devising interventions to mitigate the effects of HIV-related stigma. Researchers may examine a variety of therapeutic options in light of these findings (e.g., addressing stigma in society, preventing perceived societal stigma—internalizing stigma routes, and/or targeting internalized stigma—anticipated stigma pathways). Additionally, given past studies indicating that depression and other psychosocial factors may function as a moderator of the influence of stigma on outcomes, additional intervention techniques may include treating depression and addressing other moderating psychosocial issues. Finally, programs with sufficient resources can address all of these processes as part of a comprehensive intervention plan, increasing the possibility of success in lowering the impact of HIV-related stigma on the well-being of persons living with HIV/AIDS.

(Liu et al., 2018) argued that in the future, self-stigma in response to perceived discrimination by others will have a direct effect on the psychological well-being of persons living with HIV/AIDS. Numerous studies have demonstrated that stigma contributes to depression in HIV/AIDS patients. Over 40% of respondents reported having depressive symptoms and being concerned about their health. Depression has a beneficial influence on poor sleep quality, aggression, discrimination, and adverse effects of antiretroviral medication in HIV/AIDS patients. Although China's national HIV preventive and treatment initiatives have made significant success in recent years, depression remains prevalent among men who live with HIV/AIDS patients. Sleep quality is the biggest predictor of depression in HIV/AIDS-positive men.

According to Zhang et al. (2018), stigma against persons living with HIV/AIDS (PLWHA) is detrimental to their psychosocial well-being, and the effect varies by age. Multivariate analysis found that across all age categories of PLWHA, each category of HIV stigma was positively linked with psychosocial distress but negatively associated with resilience and self-esteem, with prevalent stigma having the highest effect. Stigmatized PLWHA are more prone to smoke and use drugs, especially those under the age of 35 and between the ages of 35 and 49. Age-appropriate treatments should be implemented to strengthen PLWHA's stigmatizing abilities in order to promote their psychological health and reduce drug usage in China and throughout the world.

(2019, Remien et al.) Significant biological discoveries in HIV prevention and therapy have resulted in aspirational efforts to eradicate the virus. This aim, however, will not be reached unless severe mental health problems and drug use among persons living with HIV (PLWHA) and those at risk of obtaining HIV are addressed. These issues compound several social and economic barriers to receiving effective and sustainable health care, making them one of the most difficult obstacles to eradicating the HIV epidemic. At every stage of the HIV care continuum, mental health issues increase the risk of HIV transmission and adverse health outcomes in PLWHA. We must prioritize mental health treatment and provide the resources to close the current screening and care gap. Integrating mental health screening and care into all aspects of HIV testing and treatment will improve HIV prevention and care outcomes and expand global access to mental health care.

Migrant women from Sub-Saharan Africa classed as PLWHA face discrimination and stigma in Belgium. Arrey et al. (2017) discovered that stigma and discrimination were reported in the following ways: delayed or refused treatment, extra precautions, wrongdoing, and humiliation. Local residents analyze the immoral behavior of migratory women classed as PLWHA. Migrant women are believed to be virus spreaders, believing that African men and women have several sexual partners. Additionally, local inhabitants fear contamination as a result of a lack of understanding and awareness about HIV/AIDS transmission, prevention, and patient management on the part of non-HIV service providers and members of the general public who stigmatize and discriminate against HIV/AIDS patients.

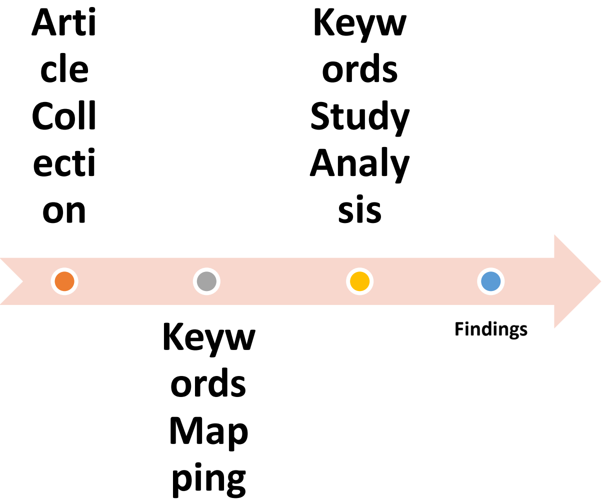
The stigma associated with HIV has a significant impact on the quality of life (QOL) of those living with HIV/AIDS (PLWHA). HIV/AIDS stigma continues to be a significant public health issue in Iran. In Iran, the increasing stigma associated with HIV/AIDS has a detrimental effect on the quality of life of PLWHA. From 2010 to 2019, epidemiological research indicate that stigma and prejudice against Iranian PLWHA generate a variety of complications for patients by preventing them from receiving health care, including antiretroviral therapy (ART). This demonstrates that HIV-related stigma has a significant impact on PLWHA's quality of life. Thus, a significant priority should be placed on decreasing stigma, enhancing health care plans, and strengthening economic conditions in order to assure an increase in overall QOL and related areas in the lives of PLWHA (Kalan et al., 2019.

Individuals living with HIV/AIDS (PLWHA) frequently suffer abusive social difficulties such as rejection, stigma, and prejudice. Psychosocial, economic, immunological, and social support factors all have an effect on the quality of life of PLWHA. Healthy behavior, depression, stigma, peer support groups, social support, and money all have an effect on the quality of life of PLWHA. PLWHA frequently suffer a variety of social issues, including being treated differently by others and enduring social rejection (from family, friends, and society), as well as family and community violence. Additionally, people living with HIV/AIDS frequently conceal their HIV status to avoid stigma discrimination in the employment, when getting services, and even at home and in health care institutions. The problem of PLWHA is not merely a medical one; it is also a sociocultural one in terms of how PLWHA is positioned in society, particularly the stigmatization that occurs. Stigma in PLWHA can affect an individual's level of depression, hence lowering the sufferer's quality of life (Fajriyah, Demartoto, and Murti, 2017).

Method

The purpose of this study was to determine whether the current state of research on stigma for people living with HIV/AIDS remains a societal problem in human life. This study employs qualitative descriptive analysis and a literature review to process the qualitative data acquired. The qualitative data is processed using the Vosviewer software tool Mendeley. Furthermore, this article aims to determine the research progress and the extent of research coverage on HIV/AIDS stigma from 2011 to 2018, whose data was taken from the Scopus database by entering the keyword "HIV/AIDS stigma." For this reason, this study was written to examine and analyze all research that academics have carried out by utilizing the VosViewer application, Mendeley, and the Scopus database. Writing articles using Vosviewer is carried out with several stages of selection in order to get the densest and most effective mapping data.

The descriptive analysis method is carried out by interpreting the data obtained from the processing of the Vosviewer software. Qualitative data is obtained from a database of leading journals, Scopus, namely a database of article documents with the highest reputation and ranking at the international level. The literature study method then utilizes Mendeley software as a medium to review articles related to the chosen theme, namely the stigma of HIV/AIDS. Mendeley's research documents were obtained from Scopus because it is considered a central source of journal data reviewed by expert academics, has a complete global capacity and provides good scientific and academic information.



Based on the graph above, the study is considered to be easier for readers to understand and can be answered through several stages and questions, such as (1) how are the relationships and network ties in research on HIV/AIDS stigma; (2) what are the most popular keywords, countries, and researchers or authors who dominate research topics on HIV/AIDS stigma?; (3) what types of mapping are used in research related to HIV/AIDS stigma?; (4) How is the research concept generated based on the outcomes of data processing from documents pertaining to HIV/AIDS stigma?. The graphs and questions above are arranged to direct and facilitate the writing of this paper so that it is more structured.

Findings and Discussion

Research on HIV/AIDS stigma is not a foreign research topic. Although symptoms and people with HIV/AIDS have been found since 1981 (Ramadhan, 2019), several researchers continue to innovate to update and expand research discussions related to the HIV/AIDS virus and disease. Not only researchers in the health sector who can conduct research related to HIV/AIDS, but many researchers from the social sector have also contributed to exploring various social approaches that are felt from the point of view of PLWHA individuals, families of PLWHA, the environment of PLWHA, to government policies in dealing with HIV/AIDS.

The processed results of network mapping will show how the relationship or bond between one keyword and another can be seen from the type of color and the connection between the lines. For example, the results of VOSViewer processing with keyword mapping that focus on the theme of reducing the negative stigma of people with HIV/AIDS produce various color groups, which are then grouped into several clusters. Network mapping is the first step to see how the distribution is. Network mapping is the first element because it is the first step to map what keywords are dominant in previous studies and keywords related to other keywords.

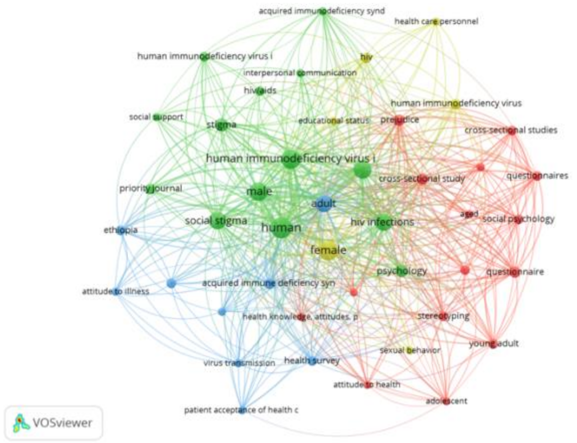


Figure 1. Map of Keywords Network Visualization

Figure 1 is a processed form of VOSViewer that has gone through various screening or selection criteria based on the researcher's needs, which shows the relationship, network, or ties of one keyword to another. For example, based on the keyword network visualization image that VOSViewer has obtained, it can be seen that several keywords discuss the social side of HIV/AIDS. Such as topics that carry the keywords social stigma (social stigma), interpersonal communication with PLWHA (interpersonal communication HIV/AIDS), social psychology (social psychology), and many more. The picture above shows the color differences that group the keyword network into four clusters.

Of the forty-four keywords above and from the results of VOSViewer processing, here are several keywords with a dominant bond or network strength. The results above are obtained from the selection process based on selecting all keywords, followed by selecting the minimum number for mentioning the keyword three times. Some of the keywords with the most dominant total ties are bold to make searching easier. For example, the top three keywords are, firstly, 'human', with 19 items and link strength for a total of 257; second, 'female' with 17 items and a total link strength of 243; third, 'human immunodeficiency virus infection' with 16 subjects and 233 total link strength.

According to the VOSViewer results above, research indicates that women living with HIV experience higher stigma associated with HIV/AIDS infection than men living with HIV. Several studies have also explained that PLWHA women often get stigmatized by various groups in the environment where they live, including in their work environment. In addition, HIV/AIDS infection that attacks humans is categorized as an infection because the disease is caused by microorganisms that attack human immune tissue, so the impact damages the human immune system.

Next is a discussion regarding the visualization of keyword overlays from research that focuses on reducing negative stigma against PLWHA when viewed from the year of publication. Keywords related to the normalization of PLWHA in the community are no longer a foreign topic because there are continuous innovations in implementing research almost every year.

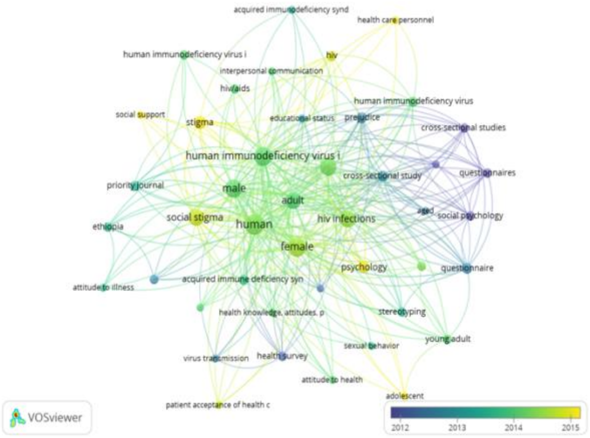


Figure 2. Map of year overlay visualization based on keywords

From the results of the author's selection and processing of VOSViewer, there are only six years of publication of the keywords above in the keyword network map, namely from 2011 to 2016. The above findings show that the categorization of research based on minimizing negative stigma among PLWHA continues has increased topics every year. The social approach in research related to PLWHA has been growing and becoming more innovative because it is constantly undergoing keyword updates that are increasingly narrowed from keywords previously classified as keywords in a broad sense. Researchers can use overlay visualization in the following year to consider the novelty of research keywords.

Based on the findings, we can conclude that there were two keywords in the 2011 publication year. One of which was the keyword about 'psychological aspect'; in 2012, there were ten keywords, one of which was 'aged'; in 2013, there were eight keywords, one of which was 'stereotyping' or the activity of judging people based solely on perception; in 2014 there were 19 keywords and 'human' was one of them; in 2015 there were four keywords, one of which was 'social support'; Lastly, in 2016 there was only one average keyword, namely 'psychology.'

Next is the result of network mapping by country. This mapping filters out countries that have been used as objects of a study. Furthermore, the countries included in the network mapping are where the researchers have determined the research locations. The reason the country is one of the topics in this research is to see the development of research with a theme and the distribution of research throughout the country. In this case, we want to see how the distribution of research related to the normalization of PLWHA against the negative stigma is still often accepted by them.

Several countries do not have links or networks with other countries based on the picture above. This condition shows that in countries that do not have links, no research utilizes collaboration or cooperation with that country as the object of research. Likewise, with countries that have links, some of these linked countries show that in research that VOSViewer has recorded, these countries are listed as objects of research that have been carried out and have similar research items in them.

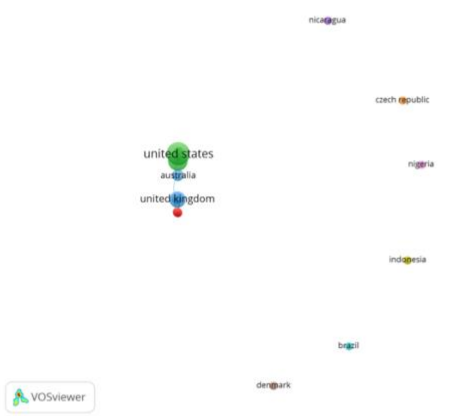


Figure 3. Map of State Network Visualization.

Cluster 1 with six countries, namely Belgium, France, Germany, Netherlands, Portugal, Spain. Then Cluster 2 with five countries, namely the Dominican Republic, Ethiopia, South Africa, Uganda, and the United States. Then in Cluster 3, four countries have the same items, namely Australia, Canada, India, and England. Furthermore, in Cluster 4, two countries are Indonesia and Japan. In Cluster 5, there are also two countries, namely Nicaragua and Sweden. Finally, clusters 6, 7, 8, and 9 have one country: Brazil, the Czech Republic, Denmark, and Nigeria.

It should be mentioned that, based on the results of the clustering above, the top few countries with the highest assessment criteria are **the UK**, with four documents, 223 citations, and nine total link strengths; **the United States**, with eight documents, 192 citations, and seven link strengths in total; **Belgium**, with one document, 145 citations and six link strengths in total**;** **Ethiopia**, with six documents, 92 citations and six total link strengths; and **France**, with one document, 145 citations, and six link strengths in total.

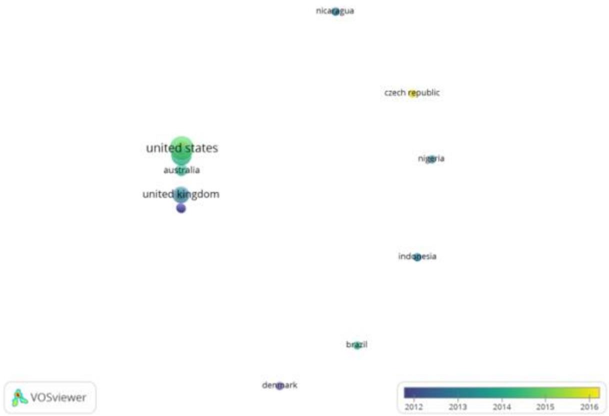


Figure 4. Map of year overlay visualization by country

Similar to the results of network mapping based on keywords, data processing results show that the publication of the average year of the network map by country produces an average of eight years, starting from 2011 to 2018. In 2011, two countries were wrong. one country is India. In 2012, it was enough to produce a dominant number, namely seven countries that became the object of research, with Belgium being one of them. In 2013, there were six countries, one of which was South Africa. In 2014 there were five countries, one of which was Ethiopia. In 2015 VOSViewer did not display the country because it did not pass the selection. From 2016 to 2018, there was only one country each year, and the target countries respectively were Uganda, the Czech Republic, and the Dominican Republic.

Next, is network mapping based on researchers or authors of studies that we have entered into VOSViewer and then processed by VOSViewer. The processed results of network mapping will show how the bonds or links between one researcher and another can be seen from the type of color and the connection between the lines. The results of the VOSViewer processing with mapping of authors or researchers who focus on the keywords HIV/AIDS stigma produce various color groups, which are then grouped into several clusters. Network mapping became one of our discussions because it was to see how the distribution of article authors was included as part of the theme we chose. Network mapping is an element because it is the first step to map who are the authors who have the most contributions to research and the relationship between one researcher and another.

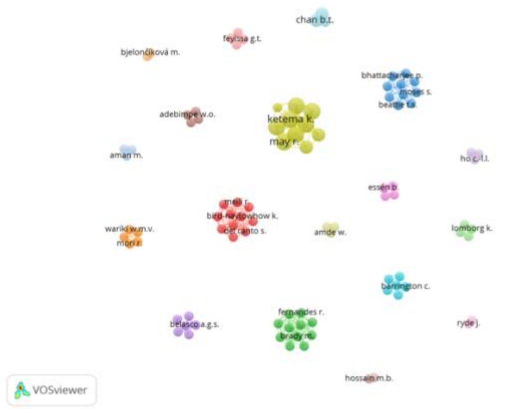


Figure 5. Map of Research Network Visualization

Figure 5 above is taken from the processed results of VOSViewer with several selection processes. First, we gave a maximum number of documented researchers of 25 researchers. Then, we also choose a minimum number of documents for each researcher, which is one document. Based on our selection results, the visualization maps of the bonds or networks between researchers tend to be clustered and not sufficiently broad.

The clustering (as the data in the attachment) results show that there are 18 cluster groups in which each cluster has ties to members of the cluster itself and has no ties to members from other clusters. This condition shows that there are static researchers because they only collaborate with certain researchers. From the observed data, one cluster has members with the highest level of assessment based on criteria that have gone through a selection process using VOSViewer. Cluster four, with most research members, has obtained the highest marks by writing three documents related to this theme, has been cited 71 times, and has a total link strength of 23 links.

One of the researchers with the highest selection scores was Ketema K., part of cluster 4. As is well known, clustering is an algorithm that has been recorded based on the similarity of several items to be classified into one cluster. His research that has the highest citation among his researches takes the theme of the negative stigma of PLWHA is "Barriers to retention in care as perceived by persons living with HIV in rural Ethiopia: Focus group results and recommended strategies." In this study, he researched by forming a focus group discussion (FGD) which presented several male and female PLWHA in Ethiopia, and his findings contained various impacts received by PLWHA due to their stigmatization.

Like the previous discussion, the distribution or overlay of researchers is also displayed to find out how many researchers research in specific years. In this discussion, we refer to the distribution of researchers who take topics or keywords to reduce the negative stigma felt by PLWHA. From the data processing results that we obtained through VOSViewer, we found that the distribution or stretch of researchers who took up this topic was over a nine-year period starting from 2010 to 2018.

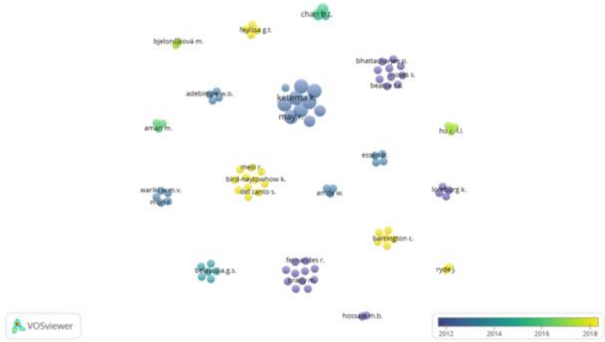


Figure 6. Map of year overlay visualization based on the name of the researcher

Figure 6 above shows the uniformity of the year of publication with one cluster group in each. We found several clusters that have the same average year of publication, as follows: first in 2010 conducted by researchers who are members of cluster 17; second, in 2011 by two clusters, namely researchers who are members of cluster 3 and cluster 11; third, in 2012 there were two clusters, namely clusters 2 and 4; fourth, in 2013 by four clusters, namely clusters 7, 8, 9, and 13; fifth, in 2014 the average research publication only collected one cluster, namely cluster 5; sixth, in 2015 only one cluster was recorded, namely cluster; 15; furthermore in 2016, there was only one cluster, namely cluster 12; then, in 2017, there were two clusters, namely clusters 14 and 16; and finally, in 2018 there were three clusters, namely clusters 1, 6, and 18.

Conclusion

The study analyzes the development trend of studies with the topic of Stigma Against People with HIV/AIDS from a systematic approach to literature review. This study finds three central and dominant concepts most often studied by the author: human, female, and human immunodeficiency virus infection. Human shows that negative stigma has a terrible impact on humans because it is related to discrimination and violence, female shows that the most victims of HIV/AIDS are women, and immunodeficiency virus infection show HIV/AIDS infection, which weakens humans immune system. This study contributes favorably since it may be used as a scientific reference to determine the reasons of negative stigmatization, types of discrimination, and the perceived negative impacts for people living with HIV/AIDS (PLWHA). This study contributes favorably since it may be used as a scientific reference to determine the reasons of negative stigmatization, types of discrimination, and the perceived negative impacts for people living with HIV/AIDS (PLWHA). With that, recommendations can be mapped out for the government and the community to help protect the interests of PLWHA and normalize this bad stigma so that it does not continue to grow and spread. At the same time, this research has limitations in the primary source of reference, which only comes from the Scopus database. As a result, the analysis is not comparative and comprehensive, so further studies need to include other reputable references such as the Web of Science (WoS).

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Attachment

Table 1. Concept-Based Clusters in the HIV AIDS Stigma Study

Cluster	***Concept***	***Total Concept***
Cluster 1	*Adolescent; aged; attitute to health; cross-sectional studies; cross-sectional study; health, knowledge, attitudes, practice; middle aged;* ***prejudice****; psychological aspect; questionnaire; questionnaires; social psychology; socioeconomic factors; stereotyping; young adult.*	*15 concepts*
Cluster 2	*HIV infection; HIV/AIDS; human; HIV-infected patient; human immunodeficiency*	*14 concepts*

	virus infection; humans; interpersonal communication; male; priority journal; psychology; social stigma; social support; stigma.	
Cluster 3	*Acquired immune deficiency syndrome;* ***adult****; attitude to illness; Ethiopia; health survey; major clinical study; patient acceptance of health care; rural population; virus transmission.*	*9 concepts*
Cluster 4	*Educational status;* ***female****; health care personnel; HIV; human immunodeficiency virus; sexual behavior.*	*6 concepts*
Total		***44 concepts***

Table 2. Clusters by Researcher Name

Cluster		**Researcher**	**Total**
Cluster 1	=	Bird-Naytowhow K.; Calvez S.; Del Canto S.; Hatala A.R.; Meili R.; Mercredi J.; Pearl T.; Peterson J.; Rooke E.; Schwandt M.; Tait P.	11 items
Cluster 2	=	Carter M.; Brady M.; Fernandes.R.; Lamore I.; Meulbroek M.; Ohayon M.; Platteau T.; Rehberg P.; Rockstroh J.K.; Smit Pj.; Thompson M.	11 items
Cluster 3	=	Bhattacharjee P.; Beattie T.S.; Blanchard J.F.; Gurnani V.; Isac S.; Maddur S.; Mohan H.; Moses S.; Ramesh	10 items

		B.; Washington R.	
Cluster 4	=	Demissie W.; Demisse W.; **Ketema K**.; Lifson A.R.; **May R**.; Metekia M.; **Shenie T.**; **Slater L**.; **Tadesse A**.; Yakob B	10 items
Cluster 5	=	Belasco Junior D.; Belasco A.G.S.; Gomes A.C.; Meazzini I.; Okuno M.F.P.; Scherrer Júnior G.	6 items
Cluster 6	=	Barrington C.; Donastorg Y.; Kerrigan D.; Carrasco M.A.; Nguyen t.q.; Perez m.	6 items
Cluster 7	=	Nomura S.; Mori R.; Ota E.; Shibuya K.; Wariki W.M.V.	5 items
Cluster 8	=	Asekun-Olarinmoye E.O.; Adebimpe W.O.; Asekun-Olarinmoye I.O.; Olugbenga-Bello A.I	4 items
Cluster 9	=	Högberg U.; Essen B.; Ugarte W.J.; Valladares E.C.	4 items
Cluster 10	=	Feyissa G.T.; Lockwood C.; Munn Z.; Woldie M.	4 items
Cluster 11	=	Lomborg K.; Ostergaard I.; Rodkjaer I.; Sodemann M.	4 items
Cluster 12	=	Aman M.; Brihnu Z; Fido N.N.	3 items
Cluster 13	=	Amde W.; Kloos H.; Tadele G.	3 items
Cluster 14	=	Ho C.-L.; Pan W.; Taylor L.D.	3 items
Cluster 15	=	Chan B.T.; Siedner M.J.; Tsai A.C.	3 items
Cluster 16	=	Bjelončíková M.; Gojová A.	2 items
Cluster 17	=	Hossain M.B.; Kippax S.	2 items
Cluster 18	=	Rydej.; Vitale A.	2 items

Total	**93 items**