



# Combination model in reducing HIV-related stigma: A systematic review<sup>☆</sup>

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## ABSTRACT

**Objective:** This article identifies and explains the various research models related to HIV stigma.

**Methods:** This systematic review is done using the PRISMA 2015 guidelines. Source of this review uses 3 online journal databases which are Pubmed, Scinapse, Elsevier. Search criteria include articles published this past 10 years between 2010 and 2020.

**Result:** 4146 articles were obtained and 9 articles which are suited with the inclusion criteria and were chosen in the literature review. It was discovered that stigmatization is a cultural construct and its experiences varies between countries and communities. Models which differentiate are interpersonal and intrapersonal process in handling the stigma.

**Conclusion:** Stigmas are still an important issues because often times it became an obstacle in the effort to reduce the prevalence of HIV/AIDS. Therefore there needs to be a gold standard scenario in reducing HIV related stigma, one of them being cultural in source.

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## Introduction

HIV/AIDS is a global health issue<sup>1,2</sup> and is a challenge in reaching the 2030 SDGs.<sup>3</sup> World Health Organization (WHO) data shows that 54% of people with HIV are new infections.<sup>4</sup> Since the beginning of the epidemic, 75 million people were infected with HIV and around 32 million have since died from HIV.<sup>5</sup> Globally, around 37.9 million [32.7–44.0 million] people are living with HIV at the end of 2018. 1.7 million [1.4–2.3] millions are newly infected cases of HIV dan 770,000 [570,000–1.1 million] people are dying due to AIDS related conditions.<sup>3,4</sup>

A myriad of efforts are done in terms of prevention of HIV/AIDS are done,<sup>6</sup> however the stigmatization still an important issue.<sup>7–9</sup> Societal stigma to the family or the person infected HIV/AIDS often times becomes the main obstacle in the effort to reduce the prevalence of HIV/AIDS.<sup>10,11</sup> Stigma and discrimination such as discrimination and rejection in the family, work and social environment can cause the people infected with HIV/AIDS (ODHA) to become overly stressed.<sup>12,13</sup> The reason is that according to society, HIV/AIDS is an infectious and dangerous disease with knowing the process of infection.<sup>14</sup> People infected with HIV (HIV Positive) receives unfair and unjust treatment due to the stigma of the condition that they suffer from.<sup>15</sup>

This particular issue needs a comprehensive attention and management by involving all elements starting from the nation, LSM, International Society and also The UN.<sup>5</sup> HIV/AIDS epidemic will

cause detrimental effect to national development at holistic scale due to the fact that other than negatively impact the health aspect, it can also negatively impact the socio-economic development and cause live expectancy to become halted and even reduced which can threaten the life of the populace and even the life of a nation.<sup>16</sup>

## Methods

Sources found using online databases provides online journal which provides articles in the form of PDF such as Pubmed, Scinapse and Elsevier. Articles retrieved from each databases were imported the Mendeley Library. The inserted criterion in the databases was (1) focus on the stigma of HIV, (2) published within the last 10 years (2010–2020) (3) articles in English and full text were chosen. Exclusion criteria were (1) Review/Editorials, (2) Conference Process, (3) Systematic Review/Literature Reviews, (4) Protocol Studies and (5) Meta-Analysis. The study selection process follows the data extraction based on PRISMA 2015 Guidelines in Fig. 1.

The Author filters all publication by reading the title and abstract. In the final filtering process, by reading the complete text from the remaining articles and maintains the study which falls into the inclusion criteria/exceptions. The chosen study summary were noted, consisting of; author, year of publication, design and study outcome/results (Table 1).

## Result

Literature search (Fig. 1).

## Discussion

Modeling is a process in creating a model of a system. The purpose of modeling is to analyze and give proper prediction

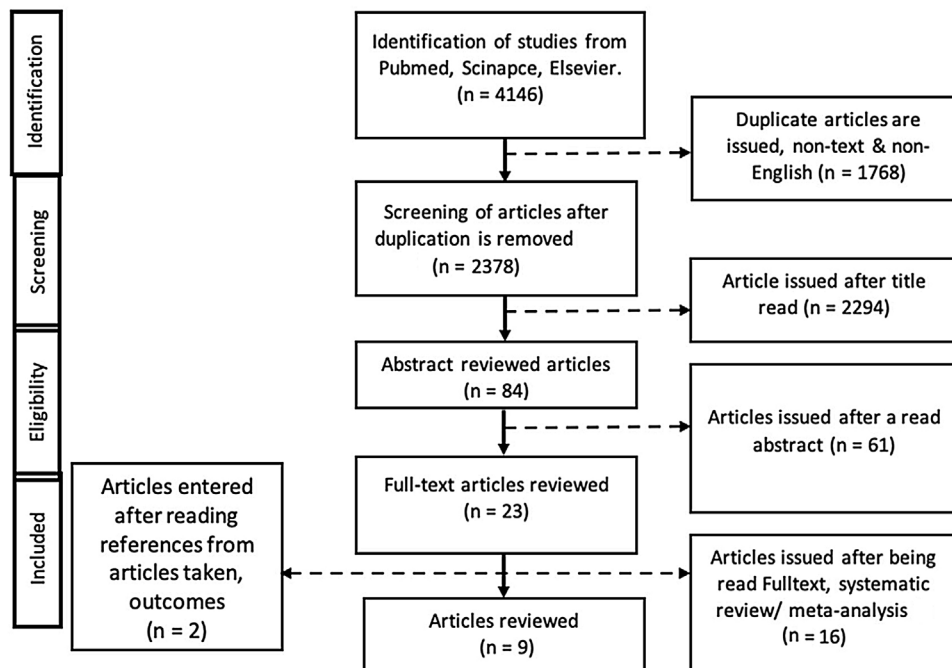
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**Table 1**  
Synthesis table on model in reducing HIV-related stigma.

Author and year	Dependent variable/latent	Independent variable	Methods/modeling	Results
Randolph C.H. Chan et al., 2021 <sup>17</sup>	Stigma from society	Stigma anticipation, self-stigma, psychological pressure and life satisfaction	A structural equation model (SEM)	Interpersonal and intrapersonal process which bases the HIV related stigma and mental health. Moreover, the stigma has direct effects on psychological process and life satisfaction of the HIV infected (ODHA).
Collins Airhihenbuwa et al., 2019 <sup>18</sup>	Cultural identity (CI), cultural empowerment (CE) and relations and expectations (RE)	Social support and perception	A structural equation model (SEM)	On the cultural and social contexts. Family and care center are the two main contexts of stigma in relations with the HIV/AIDS infected individuals (ODHA).
Chengbo Zeng et al., 2018 <sup>19</sup>	The perceived and internalized stigma (PIS), depression and suicide status	Effects of depression; positive influence; somatic and activity incapability; interpersonal problems; perceived stigma; internalized stigma	A structural equation model (SEM)	Perceived stigma and internalized stigma were correlated with the increase of depression and potential suicidal status. Depression related with a positive suicidal states on individuals infected HIV/AIDS (ODHA).
Carmen H. Logie et al., 2018 <sup>20</sup>	HIV related stigma: depersonalization, negative self image, public behavior and depression	Starting the use of anti-retroviral (ART), the usage of ART on present, and its obedience in usage is 90%	Pathways analysis	Depression mediates the pathways of self-stigmatization to obedience on using ART and negative self-image on the usage of ART dan current obedience level of ART.
Wei Wang et al., 2017 <sup>21</sup>	Suicide	The perceived stigma, social support, depression and self-respect	A structural equation model (SEM)	Self-respect and depression are really perceived to be impactful to stigma plays an important part on suicidal ideas among individuals infected with HIV/AIDS (ODHA).
Loutfy, R. et al., 2016 <sup>22</sup>	Self-stigma, expression of worry, negative self-image, public behavior and social support	HIV related stigma, housing insecurity, depression, social support.	A structural equation model (SEM)	A complex interaction between structural problems such as housing insecurity, community level stigma and social discrimination.
Winnie W.S. Mak et al., 2015 <sup>23</sup>	Self stigma between the Lian and Mianzi culture upon the mental health of individual infected with HIV/AIDS (ODHA)	Moral emotions = Guilt and Shame	A structural equation model (SEM)	A significant, albeit indirect effect to self stigma and mental health through moral emotion on Lian culture, however the same effect was not found on Mianzi culture.
Chunpeng Zang, 2014 <sup>24</sup>	Public stigma and self stigma	Three social groups, family members, friends and neighbors	A path analytic model	Stigma related to HIV is public and self stigma is reinforced by culture and mediated a relationship between collectivist culture and social group support.
Na-Yeun Choi and Matthew J. Miller, 2014 <sup>25</sup>	The willingness of the individual to seek counseling	Sikap, stigma antara budaya Asia dan Eropa Amerika	A path analytic model	Culture is a distal variable which transmit its influence through stigma unto willingness to seek counseling and treatment.



**Fig. 1.** Flow chart literature.

which can closely simulate reality, before a model is applied to the field. This situation also applies on the stigma problem related to HIV, by creating a model, it can formulized a particular process to reduce stigma.

Stigmatization is cultural construct and its corresponding experience can vary between countries and community. This opposite perspective can help explain the difference in faith, behavior and cross culture action. According to a research by Collins Airhihenbuwa, 2019 which applies the Budaya PEN-3 in grading stigma, which is Cultural Identity (CI), Cultural Empowerment (CE), and Relationship and Expectations (RE). Result of the research mentioned that family and Healthcare Centers were found to have a positive non-stigmatization and negative stigmatization in caring for HIV/AIDS related stigma.<sup>18</sup>

A research done by Zang Chunpeng (2014) mentioned that HIV related stigma is deeply rooted on culture, therefore it is important to investigate it on a cultural context. As a result of cultural behavior to HIV/AIDS, Individuals Infected with HIV/AIDS (ODHA) can and will internalize their feeling as a negative stigma which are felt by society.<sup>24</sup>

A particularly notable cultural factor (which becomes a center of attention) in self stigma. This particular problem is not unlike the previous research, by saying that self-stigma can impact the stigmatized society's welfare on their society. This cause a hampering in cultural intervention whose goal is to reduce self-stigmatization and increase mental health between the stigmatized groups.<sup>22</sup>

HIV related stigma are also tied with housing comfort or place of living, social support such as emotional help, informational support, real support and loving support, positive social interaction.<sup>26</sup> Research by Carmen H. Logie et al. (2016) from the Structural Equation model mentions that racial discrimination has a significant direct effect on: HIV related stigma, depression and social support, and indirect effect on health which are self-graded through stigma.<sup>20</sup> Other modeling research that were done by Tiffany R. Glynn (2019) recounted that HIV related stigma and stress were directly related with depression, and depression has a direct relationship with health.<sup>20,26</sup> Moreover Randolph C.H. Chan et al. (2020) conduct a research on 2 modeling process which is intrapersonal and interpersonal. The research results expressed a process in which Interpersonal and intrapersonal which acted as a base for HIV related stigma and mental health. However stigma that are applied has a direct effect on psychological pressure and life satisfaction. Internally, Individuals Infected with HIV/AIDS (ODHA) also realized on the stigmatization that directly relates with the identity of HIV, which in turns relates with a larger psychological pressure, and worst of all, their satisfaction with their own life.<sup>17</sup>

## Conclusion

HIV related stigma is a complex problem, therefore there needs to be a modeling as a media to reach an optimal solution. Several modeling research that were done stated that HIV Related Stigma were deeply rooted on different culture of different nations and community. Moreover, it also important to note the difference between interpersonal and intrapersonal process in addressing stigma.

## Conflicts of interest

The authors declare no conflict of interest.

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