

2021

Does stigma during the COVID-19 pandemic parallel the AIDS epidemic in the United States?

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BOSTON UNIVERSITY
SCHOOL OF MEDICINE

Thesis

**DOES STIGMA DURING THE COVID-19 PANDEMIC PARALLEL THE
AIDS EPIDEMIC IN THE UNITED STATES?**

by

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B.S., University of Texas at Austin, 2017

Submitted in partial fulfillment of the
requirements for the degree of
Master of Science

2021

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ACKNOWLEDGMENTS

I want to acknowledge the time Dr. Elizabeth Barnett spent in order to make sure my aims with this project were clear. I want to thank both of my readers: Dr. Elizabeth Barnett and Dr. Carl Franzblau for providing their guidance throughout the writing process. I want to acknowledge Dr. Megan Raby for providing feedback regarding my topic in the beginning stages of the writing process. I want to also thank Carole Moloney, NP and Dr. Stephen Pelton for inspiring me with their insights in HIV care and how stigma impacts the access of care. I want to thank all my friends and family for continuing to motivate me through the process.

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ABSTRACT

The COVID-19 pandemic and the AIDS epidemic in the United States have taken a burden on the population. Both are diseases that are fatal if the disease is not taken care of. In the 1980s, the fear of the uncertainty surrounding AIDS, and the unknown pathogen at the time HIV, caused panic. The one aspect that people knew about AIDS was that the epidemic was predominantly affecting homosexual men. Hence, people who were diagnosed as HIV positive were also stigmatized as homosexuals by members of society. With the advancement of antiretroviral therapies in the 1990s, having HIV became a chronic disease since it was manageable and did not lead to death. Nowadays, people who are HIV positive can lead long lives with the use of the antiretroviral therapies. However, the stigma of having HIV is still present. Extensive research has been conducted in order to study the causes of HIV-related stigma and minimize the stigma. The effects of HIV-related stigma affect those who are HIV positive and cause some patients to discontinue care—predisposing to having AIDS.

The people who face HIV-related stigma are men who have sex with men (MSM) and other high-risk populations such as intravenous drug users or sex workers. The prevalence of HIV has affected minority populations such as African Americans, and in the early 2000s the number of new cases of HIV has increasingly been coming from the Southeastern United States, also known as the Bible Belt. There has been more HIV-related stigma in this region of the United States as evident by some of the prejudiced views of health care workers in this region who may blame the actions of people for their positive HIV serostatus. The laws in 37 of the states in the United States criminalize the nondisclosure of HIV. Experts theorize that these laws increase the stigma of having HIV rather than actually decrease rates of transmission, as the laws were intended to do.

The United States has been one of the worst affected nations with the COVID-19 pandemic. The efforts to stop the spread of SARS-CoV-2 have been monumental with government guidelines suggesting social distancing, as SARS-CoV-2 is airborne and very contagious. The stigma related to COVID-19 has been targeted at groups of people that are believed to be sources of spread. Asian Americans have been subject to the targeting of people blaming them for the

spread of SARS-CoV-2 due to language such as the “Chinese Virus” that propagates stigma and leads towards harassment of Asian Americans. This review of the literature attempts to address whether there were similarities in the HIV-related stigma in the United States to the current day stigma experienced during COVID-19.

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LIST OF ABBREVIATIONS

AAAM.....	Awareness, Action, Acceptance Model
AIDS	Acquired Immune Deficiency Syndrome
ARDS	Acute Respiratory Distress Syndrome
ART	Antiretroviral Therapies
CD	Cluster of Differentiation
CDC	Center of Disease Control
COVID-19	Coronavirus Disease 2019
CSS	COVID Stress Scales
FRESH	Finding Respect and Ending Stigma around HIV
GAD	Generalized Anxiety Disorder
HAART	Highly Active Antiretroviral Therapy
HAPSI.....	HIV/AIDS Provider Stigma Inventory
HCW	Health Care Worker
HIV.....	Human Immunodeficiency Virus
IVDUs.....	Intravenous Drug Users
LGBT	Lesbian Gay Bisexual Transgender
MERS	Middle Eastern Respiratory Syndrome
MSM	Men who have Sex with Men

PLWA	People Living With AIDS
PLWH.....	People Living With HIV
PLWH/A.....	People Living With HIV or AIDS
PrEP	Pre-Exposure Prophylaxis
PRO	Patient Reported Outcome
PTSD	Post Traumatic Stress Disorder
SARS	Severe Acute Respiratory Syndrome
SARS-CoV-2.....	Severe Acute Respiratory Syndrome Coronavirus 2
SC	Support Confidant
SES	Socioeconomic Status
STI	Sexually Transmitted Infected
UAS	Understanding America Study
U.S. FDA	United States Food and Drug Administration
VA	Veteran Affairs
WHO.....	World Health Organization

INTRODUCTION

The first cases of SARS-CoV-2 were recorded in Wuhan, China in December 2019.¹ SARS-CoV-2 is the virus that leads to COVID-19, which can range from mild symptoms to lethal symptoms.¹ The World Health Organization (WHO) declared COVID-19 a pandemic on March 11, 2020.¹ Transmission of SARS-CoV-2 is mainly through respiratory droplets from one's saliva, making this an airborne contagion; alongside the fact that experts document minute amounts of cross-immune responses with other coronaviruses that have traversed the human population.¹ Those affected by COVID-19 can suffer from ARDS (acute respiratory distress syndrome) to incidence of stroke, which makes this disease dangerous for populations who have high-risk comorbidities.^{1,2}

COVID-19 has impacted the U.S. population significantly since March 2020 with the exponential rise of cases due to its high infectiousness. Throughout the year of 2020, leading experts have raced to uncover the pathogenesis, seeking out prophylactic treatments in order to combat the pandemic.² Vaccine development has occurred at record speed with the U.S. FDA issuing Emergency Use Authorization (EUA) for the first COVID-19 vaccine in December 2020, first

for the Pfizer COVID-19 vaccine—with the Moderna Inc. COVID-19 vaccine following shortly after.² A few of the worst affected subpopulations for this disease include the elderly and ethnic minorities, due to the higher prevalence of comorbidities such as diabetes and obesity, which predispose them to significant symptoms requiring hospitalization up to being placed on ventilators.² Although, the scientific efforts appear to be curbing the COVID-19 pandemic in the U.S., there are still concerns with distribution of vaccines given the limitations of the vaccines for mass population administration, such as the storage temperatures that are required for mRNA vaccines and the two dose regimen that the Phase III trials showed efficacy with.²

Another concern is the hesitancy of Americans to get the vaccine, as demonstrated with a longitudinal study done by Szilagyi et al. using data collected for the Understanding America Study (UAS).³ In this study, the researchers surveyed Americans in Apr 2020 and then in Dec 2020.³ They found a decrease in the percentages of the participants who were willing to get vaccinated for COVID-19, over the course of the study, across all demographics assessed (race, gender, and education level).³ Most worrisome was that the proportion of African American participants who were willing to get vaccinated

was the lowest.³ Given that the African American population is being disproportionately affected by the pandemic, the public health efforts for vaccine advocacy are necessary.

Another epidemic that is still present in the U.S. is the prevalence of HIV. The first HIV-infected individuals diagnosed in the U.S. belonged to marginalized communities—homosexual men and IVDUs (intravenous drug users)—in 1981.⁴ For the purposes of this review, MSM (men who have sex with men) will be used to include homosexual men, bisexual men, and straight men that engage in sex with the same gender. The patients infected with HIV were not recognized by clinicians until they developed the symptoms of AIDS (Acquired Immunodeficiency Syndrome) since there was no information at the time that HIV was causing the patients to develop the fatal AIDS.⁴

HIV is transmitted via bodily fluids, most often via sexual activities, sharing needles when using drugs, and when expecting mothers give birth. The following simplified cellular mechanism explains the way that HIV affects the body. The virus most frequently targets the CD4+ helper T-cells, incorporating its viral genome into the person's helper T-cell, and leading to the replication of

more HIV particles.⁵ The CD8+ cytotoxic T cells then target the HIV-infected helper T-cells, leading to a state of high viremia (viral particle count) and low CD4+ helper T-cell count; over time the person develops a state of low viremia and CD4+ count which forms the cellular basis of how HIV weakens one's immune system.⁵ The weakened immune system will progress to AIDS during a time period of stressful health events in a person living with HIV (PLWH). With the development of highly active antiretroviral therapies (HAART) in the 1990s, the progression of the acute illness status of a PLWH progressing to the lethal AIDS turned being HIV positive into a manageable chronic illness.^{5,6} This is one of the factors that led to the decrease in the HIV-related stigma associated with having HIV, as people did not necessarily associate HIV or AIDS as a terminal illness.⁶

Stigma is a term that was first studied by sociologist Erving Goffman in 1963 with the publication of his work.⁷ Goffman defines stigma as a phenomenon in which there is labeling or blaming of an individual based on visible characteristics, suspected characteristics or behaviors.⁷ Stigma creates a sense of otherism from what he identifies as the "normals" of society, which are individuals that belong to the majority group and are not being stigmatized due

to the particular characteristics.⁷ He denotes that people can experience stigma due to noticeable illnesses such as being blind or having multiple sclerosis, and he even recounts how people would avoid blind people due to the stigma ascribed onto the visually-impaired.⁷ It is widely agreed that blindness is not contagious by social contact in any known fashion, and such isolation from blind people is a problematic behavior that is not prevalent in today's society.

A review article by Hatzenbuehler et al. expands the definition of stigma from the one Goffman describes to include a concept that leads to negative actions by others onto the beholder of the stigma.^{7,8} Hatzenbuehler et al. then delineate the problematic effects of stigmatizing individuals for illnesses or factors that are predetermined by birth such as: the increase in mental health conditions, worsened health state of the stigmatized individual, decreased levels of economic prospects, and decreased access to housing (to name a few).⁸ Baldassare et al. constructed a historical review of past pandemics or epidemics in which infectious diseases were stigmatized, with an emphasis on HIV-related stigma, as it is a classic example of a disease that is attributed to a very specific sub-population even though anybody is susceptible to contracting HIV.⁹ A few of the studies they describe contain the notion that PLWH that have low viral loads

will more likely have lower forms of internalized stigma due to having HIV because they know that transmission of HIV is not likely with a low viral load.⁹ A scoping review of the interventions that have been studied in order to decrease the incidence of HIV-related stigma in non-first world countries introduces the three main types of stigma: perceived stigma (stigma due to others' perceptions of a particular identity or feature), internalized stigma (stigma due to our own perceptions of a particular identity or feature), and anticipated stigma (stigma due to acquiring the particular identity or feature).¹⁰ This coincides with Goffman evoking that the stigmatized individual, in this case the PLWH, would have a more difficult time interacting with individuals who are not stigmatized than the "normal" does interacting with the PLWH.⁷ The PLWH will have to adjust their behaviors in order to bring as little attention as possible to their status, translating into the PLWH not disclosing their status, whereas the person who is HIV negative simply avoids the PLWH.⁷ Thus, internalized stigma of PLWH and the perceived stigma towards PLWH are both critical to consider.

The study done by Lee et al., published in 2002, studied the effects of the internalized stigma in PLWH in two cities in Wisconsin and New York City with a sample of 268 PLWH.¹¹ The authors find that the participants who identified as

heterosexual were more likely to have higher degrees of psychological distress symptoms, such as stress, than the participants who were an identifying LGBT (lesbian gay bisexual transgender) person; possibly illustrating the internalized stigma due to the connotation that being HIV positive identifies the PLWH as homosexual.¹¹ Now, this study was done a few decades ago; therefore, the perceived stigma related to having HIV might have evolved from the late 20th century.

Policy change can lead to a dramatic impact by referencing to the passage of the Civil Rights Acts in 1964 leading to a lower prevalence of occurrences of systematic racism—which is a more pronounced version of stigma that has severe consequences for ethnic minorities.⁸ Racism in the U.S. was first manifested by adopting slavery of African Americans, that were considered inferior to the white Americans, which Goffman's argues is one of the ways that stigma establishes the dominance of the people who exert the stigma on the individuals who are different from what he considers "normals".⁷ Then, the establishment of separate facilities decades after the Civil War for white Americans and African Americans, contains this theme of isolation of the perceived other. Now, with the current political climate in the U.S. with

movements, such as Black Lives Matter, in which civil rights' activists are protesting the targeting of African American people by police officers the effects of the stigma towards African Americans are noted. These tangential comments of racism towards African Americans are worth mentioning, as they have been and are disproportionately affected by the HIV epidemic and the COVID-19 pandemic in the U.S..^{3,12} The compounded effects of the stigma of having illnesses such as these complicate matters for the lives of marginalized communities that already have stigma due to various other reasons.

SPECIFIC AIMS

Given the nature of how contracting HIV then developing AIDS and acquiring SARS-CoV-2 leading to COVID-19 are inherently different, these two illnesses would seem to manifest stigma in distinct ways given the mode of transmission. An aim of this review is to showcase that the populations affected by the stigma—either by the direct stigma or the consequences of the perceived stigma—are similar such that a lesson can be learned from how HIV stigma has been addressed in the past to the present in the U.S. and learning from those lessons could minimize stigma with the current COVID-19 pandemic.

A secondary objective would be to compare the subpopulations in the U.S. that have faced stigma in the U.S. since the beginning of the AIDS crisis in the 1980s to the subpopulations in the U.S. who currently face stigma during the COVID-19 pandemic. What are the ways that the stigma has been spread with HIV, and is stigma similar to the COVID-19 pandemic? The characteristics of the people who face the stigma will be presented by highlighting the demographics, such as race or sexual orientation, when addressing the stigma of both of these infectious diseases. Also, the review will consider the role of health care workers

(HCWs) in the stigma surrounding the disease. Are the HCWs the recipients of the perceived stigma of spreading the infectious disease or are they members of the dominant population that need to address prejudiced views that lead to stigmatizing individuals who have the disease?

Another aspect of the stigma that is worth addressing is how the U.S. took control of the stigma that affects those vulnerable to acquiring HIV, weighing whether these measures can be utilized to address stigma during the time of COVID-19.

LITERATURE CITED

Stigma in Health Care Workers During COVID-19

As health care workers have been facing the impact of the current COVID-19 pandemic, they have increasingly been exposed to patients that are COVID-19 positive. The workload in the medical frontlines has increased dramatically, leading to burnout and other health conditions.¹³ A cross-sectional survey done by Dye et al. showed the presence of physical and verbal harassment of healthcare workers throughout several countries during the COVID-19 pandemic.¹⁴ The study contained participants from the North American, South American, European, and Asian continents, so the sample was generalizable to a world population of health care workers.¹⁴ The participants described their accounts of bullying by answering the open-ended responses with descriptions of their experiences—with one notable response describing how people in the general public threw bleach at them.¹⁴ It is worth noting that one of the links that Dye et al. made was the identification of the health care workers by components of their uniforms, also conveying that physicians were less likely to get stigmatized in public.¹⁴ This could be due to the fact that HCWs of higher

socioeconomic status (SES) rely less on public transportation and are more likely to be less visible in public after a shift from work.

The presence of health care worker stigma is also noticed in an assortment of linked studies done by researchers in North America. Taylor et al. conducted a study to assess the avoidance of health care workers by the lay public from mid-May 2020 in which they sampled 3551 non-healthcare workers from the United States and Canada, with approximately even samples of participants from each nation.¹³ In this study, they noticed that nearly 32% of the participants expressed wanting to quarantine the health care workers from the rest of the population, or believed in measures that are were unnecessarily isolationist—even if a significant portion of the sample agreed that the health care workers deserved the accolades (such as clapping and cheering).¹³ The authors highlighted that the participants that expressed a fear of catching COVID-19 from health care workers, also displayed a higher levels of xenophobia and higher scores on the COVID Stress Scale.^{13,15} The COVID Stress Scales (CSS) was created and validated in a survey study done by Taylor et al. in which they also sampled a population of 3375 participants from the United States and Canada in order to develop a measure to assess the components of stress due to COVID-19.¹⁵ This study ran

from mid-Mar 2020 to the beginning of Apr 2020, and the investigators constructed a measure of 5 components that included themes such as fear of infection, xenophobia, and fear of financial loss due to the pandemic.¹⁵

Essentially, Taylor et al. linked xenophobic tendencies as a key feature of people who displayed a subdued fear of catching COVID-19 from health care workers, stating that participants who were wanting to avoid HCWs were more likely to score higher scores pertaining to xenophobia.^{13,15}

The deleterious health effects of stigma have been extensively studied. Taylor et al. conducted a sister study to create the CSS using a similar study population of N=6854 from the two North American countries and synthesized the measures of the CSS into a phenomenon they termed the COVID Stress Syndrome.¹⁶ The authors comment that nearly 50% of the study population had been following social distancing measures as recommended by the local authorities, keeping in mind that social distancing has been linked to higher degrees of anxiety.¹⁶ The COVID Stress Syndrome was constructed by the authors utilizing network analysis and latent class analysis of the data collected via the survey that was run from Mar 21, 2020 to Apr 1, 2020.¹⁶ The five components of the COVID Stress Syndrome which can be measured via the CSS

are: fear of infection, xenophobia, financial worries, trauma due to the exposure of COVID-19, and constantly checking the media for updates on the pandemic.¹⁶

The collection of studies done by Taylor and his colleagues utilizing survey methods were not the only studies done to measure the effects of COVID-19 and the stigma that is perpetuated against the healthcare workers. Hennein et al. conducted a cross-sectional survey in May 2020 across the United States in order to measure the mental health outcomes of HCWs during the COVID-19 pandemic.¹⁷ One of their findings was that a higher degree of stigma perceived by the participants was correlated to an increase in signs of Post-Traumatic Stress Disorder (PTSD).¹⁷ The researchers also found that nonclinical health care workers were most likely to express symptoms of generalized anxiety disorder (GAD) and PTSD than their clinical counterparts.¹⁷ This illustrates the issue of socioeconomic status differences in health care workers that was already present prior to pandemic.

The effects of stigma can add to the heavy mental toll that HCWs face during this pandemic. A cross-sectional survey done in New York City from Apr 9, 2020 to Apr 24, 2020 with an N=657 HCWs hinted at the high levels of mental

health symptoms in these frontline workers.¹⁸ The investigators found rates greater than 50% for PTSD symptoms, depressive symptoms, and anxiety symptoms – with nurses disproportionately reporting PTSD symptoms.¹⁸ Close to 75% of the participants had fear regarding the status of other HCWs working around them due to lack of personal protective equipment during this time period in the U.S..¹⁸ This fear of catching COVID-19 from coworkers could have led to the perceived stigma of others; yet, the researchers did not measure that concern in their study.

Stigma in Asian Americans During COVID-19

With the COVID-19 pandemic originating in China, there has been a concern in the U.S. that the rhetoric when addressing the pandemic can lead to stigma towards Asian Americans. Budhwani and his colleagues conducted a study from Mar 9, 2020 to Mar 25, 2020 in which they assessed the rates of Twitter users posting tweets such as “China Virus” or “Chinese Virus.”¹⁹ The authors cited President Donald Trump using language in a tweet on Mar 16, 2020 referencing to SARS-CoV-2 as the “Chinese Virus,” so they measured the tweet count with those hashtags from Mar 9, 2020 to Mar 15, 2020 and then from Mar 19, 2020 to Mar 25, 2020.¹⁹ They found a ten-fold increase from the first set of

dates to the second set of dates, indicating that President's Trump language could have led to changes in other Twitter users' behavior when referencing SARS-CoV-2.¹⁹ They also indicated that certain states had higher increases in such verbiage, such as in Idaho, Mississippi, and South Dakota to name a few.¹⁹ This study did not address whether there were higher incidences of stigma towards Asian Americans, but it is likely that was the case.

Another study done by Xue et al. assessed the nature of the twitter posts as they related to the COVID-19 pandemic from Mar 7, 2020 to Apr 21, 2020.²⁰ The researchers found that there were 5 overarching themes in the twitter posts they studied: the spread of COVID 19, social stigma with language such as "Wuhan Virus" or "Chinese Virus", COVID-19 in the U.S., COVID-19 in the world, and the number of cases as they relate to new cases or death cases.²⁰ A limitation of the study design, also applicable to the one conducted by Budwhani et al., is that they only considered Twitter usage, disregarding other social media platforms that are popular in today's time.^{19,20}

A cross-sectional study using data collected from the Understanding America Study in Mar 2020 assessed the perceived stigma of having COVID-19

towards Asian Americans compared to the stigma towards non-Asian Americans.²¹ A key finding that the researchers found was that Asian Americans (whether U.S. born or foreign-born) were more likely to feel the perceived stigma of COVID-19 than non-Hispanic Whites; furthermore, the participants who reported more perceived stigma due to COVID-19 were more likely to express symptoms of psychological distress in their answers on the survey.²¹ The stigma in this study consisted of verbal and physical harassment due to the people blaming them for COVID-19.²¹ Also, they found Hispanics and African Americans to be more likely to feel stigmatized due to COVID-19 as compared to white Americans.²¹ This stigma is due to the perception of people in the population blaming them for the spread of SARS-CoV-2.

As the rates of stigma due to COVID-19 are studied it is vital to assess the behaviors of the general public in the U.S. as they relate to COVID-19. A review article by Roberto et al. cited that there were more than 124 reports to the New York City Commission of Human Rights of verbal or physical harassment against people of Asian heritage in April 2020 alone.²² Now throughout the U.S., there were more than 1500 reports of harassment aimed at Americans with perceived Asian heritage from the months of Mar 2020 to Apr 2020.²² The authors

cite similar occurrences of anti-Asian sentiment and reports of harassment during the SARS and MERS epidemics; thus, this is not a phenomenon that is unique to the COVID-19 pandemic.²²

Social Media Usage Relating to COVID-19 Stigma

How social media transmits information in the past decade has been studied by public health officials and experts since the way it quickly relays a message can have a great impact on a population. It was mentioned earlier that Twitter usage in the early stages of the COVID-19 pandemic has been correlated with an increased sense of xenophobia towards people of Asian heritage. A few other studies also identify important aspects of social media usage during this pandemic.

Researchers from the University of Michigan conducted a study using data science methods, such as thematic analysis, to identify the nature of the 82,893 twitter posts that were studied as they relate to older populations (defined as older than 65 years old) and COVID-19.²³ The researchers looked at twitter posts from Jan 23, 2020 until May 20, 2020, and they found that about 18% of the total posts contained themes that were ageist or had content with anti-Baby

Boomer sentiment.²³ Also, they found that 4.8% of the total tweets contained themes of mocking or ridiculing older populations, with a slight majority of those posts having hints of senicide—such as letting the older population die off.²³ The researchers also found that oftentimes the posts that mentioned older people would describe the population with connotations of weakness, such as being “immunocompromised” or the “frail elderly”; however, there were tweets that had empathetic views of older people which usually contained themes of intergenerational unity.²³ This gives rise to idea that social media can be both a mechanism for stigmatizing others or a way to decrease stigma.

Another study involved conducting statistical analysis of a survey done by the PEW Research Center, which surveyed 10,510 people throughout the U.S. from Mar 19-24, 2020, asking whether the participants posted information about COVID-19 on their social media profile.²⁴ Campos-Castillo et al. found that Hispanics and African Americans were posting more content on social media regarding COVID-19 than white Americans, and that older people and men were less likely than younger people and women to post COVID-19 content, respectively.²⁴ The authors inferred that the role social media may play is a self-help option as users may turn towards this information outlet in order to seek

out more information.²⁴ Similarly, the study done by Dye et al. found social media usage by health care workers to be protective against the effects of bullying; yet, the authors theorized that this may be due to doctors being more likely to be using social media compared to other HCWs in the study; therefore this phenomenon could be a confounding factor.¹⁴ A limitation that Campos-Castillo listed out is that the researchers did not know whether the participant's posts had positive or negative information regarding COVID-19.²⁴

Reflection During COVID-19 Times

The intersectionality of disease has been long studied. A couple of studies that bring about a unique aspect of the fears that the stigma during the COVID-19 pandemic perpetuates are two that address people living with HIV (PLWH) in current times. A cross-sectional survey done in Atlanta, Georgia was done in order to identify the attitudes about COVID-19 in 149 PLWH by asking them to complete assessments that measure the rates of social distancing, xenophobic attitudes, and stigmatizing attitudes in general to COVID-19.²⁵ The researchers found that the participants held attitudes that reinforced discriminatory attitudes, such as the hyperbolized social distancing from people who are believed to have COVID-19, by the PLWH; however, the investigators noted that

there were scarce tendencies of PLWH to hold xenophobic attitudes against ethnic minorities, such as Asian Americans who are misguidedly believed to be spreading SARS-CoV-2.²⁵ The authors also mentioned that subsets of the study participants who belong to even more marginalized groups, such as transgender PLWH, held stricter social distancing precautions given the high amount of stigma towards them and the participants fear of getting ill.²⁵ Lastly, the authors convey the notion that public health officials owe it to the population to find strategies that address the stigma present during the COVID-19 pandemic without creating a sense of otherism against minorities groups.²⁵

Similarly, a longitudinal study conducted by Quinn et al. surveyed the experiences of sexual orientation minorities during the current pandemic.²⁶ The researchers found a series of common themes in the responses of the participants such as: resilience, the need to be precautionous, and using reliable information to take collective action for the greater good.²⁶ A few of the open-ended answers of the study participants conveyed the similarity of being COVID-positive and how that social identity resonated with them as the general public's perception of them as having HIV infection.²⁶ The authors parallel the concept of being an asymptomatic carrier of SARS-CoV-2 to being a carrier of HIV without knowing,

and even drawing comparisons to government inaction in the 1980s with what many Americans perceive to be government inactions by the Trump administration.²⁶

AIDS Stigma in the 1980s to 2000

When AIDS was first diagnosed in the United States, oftentimes the diagnosis was synonymous with a death sentence. Thus, the fatal nature of the illness would lead one to suppose that significant efforts would be made to curb the spread of the disease. However, researchers from the City University of New York, Herek and Glunt, conveyed that the federal U.S. government was not invested in funding AIDS research in the beginning of the 1980s, with the U.S. Senate shutting down votes for federal funding for AIDS educational programs.²⁷ In 1988, legislator Nancy Pelosi— who represented a district in San Francisco— wrote a legislative policy recommendation that the U.S. Congress should portion funds for AIDS research, since that would not only help save lives of those afflicted but would minimize the levels of stigma towards people living with AIDS (PLWA).²⁸ Thus, legislators with districts that held heavily-affected populations were making the case for the need for research given the benefits of HIV-related stigma reduction.

Herek and his colleagues conducted a series of studies that essentially showed the trend of stigma in the general population towards those afflicted with HIV or AIDS.^{12,29} In 1991, Herek et al. conducted a phone survey to 538 randomly selected American households throughout the country, and 607 African American households.²⁹ One of their findings was that African Americans were more likely than white Americans to favor socially isolating due to fears of contagion from PLWA, whereas the white Americans were more likely to hold negative views against PLWH or PLWA.²⁹ The researchers also found that men were more likely to favor quarantining PLWH or PLWA, compared to women irrespective of race.²⁹ Although, the general public overwhelmingly agreed with the notion that the scientific and medical community accurately knew that HIV could not be spread via social contact, they still agreed with statements such as avoiding stores that were owned by PLWA or not using a sanitized eating utensil that a PLWA used.^{12,29}

Herek and his colleagues conducted a similar phone survey twice across the U.S. from 1996 to 1999 to assess the stigma against PLWA in the general U.S. population.¹² From 1996 to 1997 they surveyed 1309 randomly selected

households, and from 1998 to 1999 669 households.¹² The results noted towards the end of the 1990s, 20% of the participants held stigmatizing views towards PLWA—which although it was indicative of a negative trend—the authors considered this a significant portion of the U.S. population.¹² Over the course of the 1990s, the results of both studies indicated that there was a decrease in the percentage of the U.S. population that was in favor of having PLWA quarantined—from about 33% to about 17%; however, half of the participants still believed that PLWA were responsible for their own illness.¹²

HIV-Related Stigma in Health Care Facilities

As health care providers address the needs of PLWH, the significance of ensuring that the culture in health care settings allow PLWH to access the resources that they need is emphasized by the research in this field. One study done in a group of 174 nursing students, published in 2011, developed a measure named the HAPSI (HIV/AIDS Provider Stigma Inventory) in order to assess the views that the students have towards PLWH or PLWA, in hopes that the HAPSI would help the participants recognize any internal biases.³⁰ The investigators used the AAAM (Awareness, Acceptance, Action Model) in order to design the HAPSI, by using the concept of mindfulness when addressing the PLWH.³⁰ They

noted that very few of the students (15 students) had prior exposure to PLWH or PWLA, with a subset knowing close people with the HIV.³⁰ The investigators validated the HAPSI with other questionnaires that detect stigma toward PLWH, such as the AIDS Attitude Scale.³⁰ Their aim with utilizing the HAPSI to provide a tool in the training of HCWs to identify their stigmatizing views and minimize the automatic behavior that results from holding such views.³⁰

A study done Fredericksen et al., from 2009 to 2012, with 66 PLWH and 110 HCWs involved conducting an online survey that allowed the ranking of patient reported outcome (PRO) domains.³¹ These researchers found a discrepancy in the ranking of stigma towards PLWH in the collective responses of the HCWs in comparison the PLWH, in that the HCWs found substance use to be of higher order of importance than stigma whereas the PLWH found stigma more important.³¹ The contrast was more pronounced with PLWH who had a recent diagnosis of HIV compared to the PLWH with longer history of diagnosis.³¹ From the total participants that were surveyed, a fifth of the participants conducted in person interviews, and the participants who were PLWH commonly reported that the disclosure of their positive HIV status to others in their lives is a reason to have higher amounts of perceived HIV-related stigma.³¹

The region of the U.S. known as the Deep South accounts for half of the new diagnoses of HIV in the U.S.; therefore, Stringer et al. conducted a study to assess the attitudes of HCWs in the region by surveying a 651 HCWs in Alabama and Mississippi.³² The participants consisted of about 33% clinical staff and 31.2% social workers, along with 93% of the participants reporting to work at institutions that had low levels of patients with HIV.³² The researchers cited that previous studies found women, having lower levels of education and the presence of religious affiliation to be more correlated with holding stigmatizing views against PLWH.³² They found that more than 89% of the participants held at least one stigmatizing view, and the factors that were correlated with holding stigmatic attitudes were being male, being White, and being Protestant.³² The contradiction in this study's findings that male HCWs in the Deep South are more likely hold stigmatizing views could be to a cultural mindset, whereas the previous studies that Stringer et al. cite might have the confounding factor that health care is field female dominated field which could lead to uneven gender distributions in the study design of the previous studies. Interestingly, the researchers found HCWs that work in HIV/STI (sexually-transmitted infection) clinics to be more likely to hold stigmatizing attitudes towards PLWH in contrast to HCWs who do not work in HIV/STI clinics.³² The researchers theorize that this

finding which contradicts the literature— higher exposure to PLWH usually leads to lower levels of stigma—is possibly due to higher levels of burnout in the HCWs in the Deep South which leads them to be disgruntled.³²

Another study held in Alabama involved piloting a workshop named FRESH (Finding Respect and Ending Stigma around HIV).³³ In this study, Batey et al. conducted a modified workshop modeled after workshops that were studied in a plethora of sub-Saharan African countries in order to inform HCWs and PLWH regarding the present issues of the HIV-related stigma that faces patients while they engage in their health care management.³³ The investigators utilized the three-principled approach used in previous HIV care research (individual action, building a support system for the PLWH, and engaging with institutions that can advocate for the necessary policies for the wellbeing of PLWH), and they analyzed the data collected in the study done by Stringer et al. in order to make the FRESH workshop culturally-relevant to this area of the U.S..^{32,33} There were 17 HCWs and 19 PLWH that attended the 2 day workshop, with informative session regarding the stigma against PLWH followed by a team building exercise in which groups presented their own project designed to minimize stigma.³³ Batey et al. mention that 87% of the participants responded

positively to the program, with only 1 participant finding the workshop a bit difficult to understand.³³

Although the stigma within the health care institutions has been studied extensively, there is a dearth of literature regarding the stigma the HCWs who work patients that are PLWH. Dr. Sagoe-Moses wrote correspondence in 2001 delineating the risks that face the HCWs that attend PLWH in the African continent, listing the lack of PPE, unsanitary needle practices in health facilities, and lack of training in order to address the needs of the PLWH.³⁴ He mentions that 90% of occupational exposures to HIV reported to the WHO (World Health Organization) occur in North America and Europe; yet, at the time these continents only had 4% of the cases of PLWH worldwide.³⁴ This staggering statistic highlighted the possible underreporting that occurs in the African continent; however, in countries such as the U.S. there are procedures in place such that the HCWs that are exposed through their occupation can be taken care of promptly – possibly reducing the stigma that HCWs face if others around them knew that they cared for PLWH.

ART Adherence in PLWH and Stigma

The ART regimens that PLWH take are essential in prolonging the quality of life. Therefore, studies have been done in order to assess the patterns of ART adherence. The study done by Beer et al. sought to identify differences across the demographics of PLWH.³⁵ The authors conducted a cross-sectional utilizing data compiled from the Medical Monitoring Project, in which the 12,394 participants were surveyed from 2009 to 2012.³⁵ The authors' finding included that African American PLWH and younger PLWH participants were less likely to be adherent their ART regimens than their counterpart groups in the study; the authors found a slight statistical significance in correlation with ART adherence with SES and education level— with a higher adherence to the regimen among PLWH that were more affluent and educated.³⁵ However, considering that the authors had a significant portion of their participants belong to a low SES category, this could be a limiting factor in their analysis. The authors pointed out that the female PLWH were more likely to be African American, compared to other races, hinting at the stratified nature of stigmatized identities that can lead the disproportionate burdens in ART adherence from individuals in this subpopulation.³⁵

Another observational study done by McCoy et al. tried to determine the ART adherence levels in older PLWH, defined as ≥ 50 years of age.³⁶ In this study, 426 participants were recruited for the PRIME study (a phone survey done from 2007 to 2012), and interestingly the authors found that the African American PLWH were not disproportionately non-adherent as compared to white Americans.³⁶ The authors argue that this could be due to the fact the ART adherence in the participants was very high, such that a statistical significance was not noted; yet, the authors cite that African American PLWH have disproportionate burdens of HIV-related health consequences as the stigma embedded in the African American community is high.³⁶ Moreover, given that the sample the authors studied was an older population of PLWH, the results essentially add to the finding in the study done by Beer et al. that older PLWH are very adherent to their regimens across ethnic groups. This conclusion can be made given that the time periods of the studies overlap.

A longitudinal study done Bogart et al. with 221 participants assessed the correlation of ART adherence in African Americans with perceived HIV-related stigma.³⁷ The investigators of this study asked the participant to provide a list of 20 people in their social circle, denoted as alters.³⁷ One significant finding was

that the presence of at least one alter with a stigmatizing view was enough to correlate with the participant being less likely to be optimally adherent to ART regimens ($\geq 85\%$ of adherence).³⁷ However, another study finding was that the presence of social support in the list of alters buffered the effect of the stigma that participants encountered.³⁷ This finding shows that although it is critical to address the stigma PLWH may have, providing a robust support system for the people can be very beneficial.

The following studies illustrate researchers' efforts to develop and study such support resources for PLWH, in hopes of increasing their ART adherence in the long run. The clinical trial conducted by Bogart et al. provided a community-based approach to ART education to a sample of African American PLWH comparing to the standard of care approach, which is more reliant on a clinical setting.³⁸ A finding by Bogart and her colleagues is that the community-based ART education showed consistent results across the length of the study in contrast to the control group that showed a decline in ART adherence through the length of the study, which involved a trained African American counselor coaching the participants about the importance of ART adherence and addressing any barriers that may be present in accessing their medical resources

and other essential needs for living.³⁸ The purpose of this trial was to show that a culturally congruent approach would work better for populations that have been subject to the institutional barriers of health care.

Similarly, another clinical trial conducted in Chicago by Bouris et al. attempted using the network of the PLWH participants.³⁹ In this study, project EnGage, the investigators enrolled 98 African American MSM participants who had been diagnosed with HIV, and one of the study members would meet with the participants and help them find a “support confidant” (SC), which could be anyone from the participant’s life, by drawing a social network map on paper.³⁹ The investigators found that the participants who had an SC were more likely to continue to engage in their care, such as attending all their scheduled appointments and having optimal ART adherence; however, the authors point out a limitation of their study design in that the pool of participants already had high engagement in their HIV continuum care.³⁹ Both of these studies demonstrate that embedding social support systems within HIV care, specifically of at risk populations, can provide substantial benefits in helping the patients feel validated because there is someone on their team, as opposed to a health professional, who may be intimidating to the patients. The approach that Project

EnGage used is more cost-effective and can minimize the stigmatic views in the people in the lives of PLWH as they are more educated on the realities of HIV care which can also bolster the self-esteem of someone dealing with the pressures being HIV positive. Meanwhile, Project RISE, which is highlighted in the study conducted by Bogart et al., can provide a mechanism of advocacy against HIV-related stigma to groups in communities that have HIV-related stigma entrenched deep into their views, such as Hispanic and African American communities.

PrEP Usage and Stigma

Pre-exposure prophylaxis (PrEP), also known by the brand name Truvada®, is a preventative treatment that can be prescribed to be people who are at high risk of contracting HIV. The emergence of PrEP has been helpful in curbing the spread of HIV in the American population. Now, some studies show that there is concern in regard to the prescribing of PrEP or the accessibility to PrEP for people who are at high risk of acquiring HIV.

The first study, done by Calabrese et al. in 2013 involved surveying a sample of 102 medical students from the Northeastern region of the U.S., using a

clinical vignette in order to assess the participants' willingness to prescribe PrEP to a fictitious MSM patient, manipulating race of the patient.⁴⁰ In this study, the researchers found that the medical students were more likely to assume that the African American patient was more likely to be have condom-less sex if PrEP was prescribed than the white patient in the vignette.⁴⁰ However, when the students had the African American MSM as a patient in vignette, the students had a 97% rate of PrEP prescription in comparison to the 87% rate when the vignette applied to a White patient.⁴⁰ This study finding indicates that regardless of the patient's race, the medical students are more likely to assume that the prescribing of PrEP will lead to unprotected sex, suggesting possible bias in this cohort of participants towards MSM patients and even more so towards African American patients. Now, the authors argue that the although the study examined the responses of medical students – who are not HCWs yet – these findings may be reflective of societal views that the medical students have been exposed to.⁴⁰

Another study done by Calabrese et al. in 2015 looks as a survey done on a sample of 111 medical students in the Northeastern region of the U.S., where the researchers were intending to assess the willingness of the medical students to prescribe PrEP based on the sexual practices of the MSM patients in the

hypothetical scenario.⁴¹ The researchers cite that the PrEP prescribing guidelines recommend that PrEP be prescribed to people who are at high risk of contracting HIV due to sexual activity and injection drug users, irrespective of sexual orientation; meanwhile they conveyed that the guidelines may allow more subjective practices of the providers.^{40,41} In this study, conducted in 2017, the researchers found that the medical students were less likely to prescribe PrEP to MSM patients if there was indication that they would not be using condoms, and they were even less likely to prescribe PrEP if the patient had multiple sex partners compared to a single partner.⁴¹ The authors conclude that this finding is counterintuitive to the ideal clinical practice of prescribing PrEP since the people who need it most (the patients who are engaging in unprotected sex) may not be getting the necessary access based on decisions that are not based on evidence-based medicine.⁴¹ The author's point is valid in that the presence of high-risk activity is already placing the patient at high risk of contracting HIV, and since PrEP is a preventive treatment it does not make sense to minimize access to it since wearing condoms isn't a requirement for PrEP to work. The indication that the medical students in the second are using a values-based approach in making their decisions is more notable, as they had a higher likelihood to indicate that stopping condom usage for conception than for alternate reasons such as

pleasure, the ability to maintain an erection, and the emotional connection from having condomless sex.

Although these two studies provide valuable insights into the future prescribing practices of PrEP, these studies are done in health care workers in training that may be limited in their exposure to PLWH or MSM populations. Thus, the prescribing practices may not be generalizable to the provider population as more studies come out on the effectiveness of PrEP. Another aspect of PrEP intake is reliant on the patients themselves. The next two studies provide qualitative insight.

The P18 study was done in 2012, in a group of 100 young MSM that resided in New York City, in which the researchers interviewed the participants and provided a thematic analysis of the answers to questions regarding PrEP.⁴² The researchers purposefully obtained a group of minority participants, 20% African American and 29% Hispanic/Latino, citing that the minority young MSM were highly susceptible to contracting HIV.⁴² Some of the findings of the P18 study were that the participants were concerned about the fear of long-term side effects, the fear of the stigma as being labeled as promiscuous if one takes PrEP,

and the concern of the financial cost of PrEP itself. Interestingly, the authors noted that the African American participants were more likely to have favorable attitudes towards PrEP after being presented with educational material than the white participants; the authors explained this by stating that the white participants were more likely to have concerns regarding the potential side effects of PrEP.⁴² This phenomenon could have been due to a higher likelihood of exposure to PrEP information in white participants that may be inferred by the next study.

A study done by Quinn et al. in Milwaukee, WI from 2017 to 2018 involved interviewing a cohort of young African American MSM participants on their experiences surrounding PrEP.⁴³ At the time of this study, the researchers were citing that white MSM were using PrEP at significantly higher rates than African American MSM; thus, it was warranted to assess attitudes of the latter subpopulation.⁴³ It is worth noting that the participants were overwhelmingly making below \$10,000 per year. A few themes that emerged in this study were: the offense they would take to physicians suggesting they are ideal candidates for PrEP, the mistrust in that they would be used as “guinea pigs” (due to it being new) if PrEP was prescribed by their provider, and the notion that the felt

like an African American physician could relate more to the struggles of their upbringings which can affect the affordability of PrEP.⁴³ Now, the participants in this study generally mentioned that PrEP is more accessible in clinics at affluent neighborhoods with predominant white people; yet they prefer to go the community clinics that belong to predominantly high African American populations. One participant describes how “they treat gay men like we nasty,” as he describes his sentiment of male white physicians, indicating the perceived stigma that may be due to his multiple identities—a gay, African American person who has a higher susceptibility of contracting HIV.⁴³ The interviews were conducted either individually or in group settings depending on the participant’s comfort level with conversing about PrEP. Similar to the P18 study, these participants hinted that other people in their lives would have misconstrued views of them as people with multiple sex partners because of their use of PrEP, illustrating the stigma of PrEP as a tool for HIV prevention.

A review article by Sullivan et al. explains the prevalence of low PrEP use in the Southeastern U.S. region which has steadily been increasing in its share of new HIV cases each year, disproportionately affecting African American and Hispanic communities.⁴⁴ Sullivan et al. cite that 14 out of the 16 Southern states

have laws that criminalize HIV transmission if it is not disclosed.⁴⁴ The authors propose the implementation of methods such as incorporating telemedicine for PrEP referrals and increasing empowerment messages of PrEP use in order to combat the stigma towards PrEP alleviating populations that might also be subject to HIV-related stigma.⁴⁴

U.S. Public Policy on HIV Nondisclosure

In 1990, the passage of the Ryan White CARE Act was essential in allocating resources for health care resources for PLWH and PLWA; however, one of its provisions was the incorporation of laws across the 50 states penalizing PLWH who do not disclose their status to their sexual partners.⁴⁵ Harsono et al. conducted a systematic review, analyzing 25 studies from 1990 to 2014 for the effects on PLWH of the U.S. laws that hold the nondisclosure of HIV status illegal.⁴⁵ 16 of the 25 studies included in the review measured quantitative data.⁴⁵ A few of their findings include that throughout the studies reviewed the participants that were PLWH supported such laws, citing that the PLWH knew the importance of telling their sexual partners their status to avoid transmitting HIV, making the nondisclosure of HIV status legal offenses where in some states breaking the law can lead to felony charges or even being registered as a sex

offender.^{45,46} Harsono et al. argue that the PLWH can potentially suffer from the syndemic effects of having HIV such as chronic stress, having psychopathologies, or being homeless; they convey the notion that some legal experts don't believe that these HIV nondisclosure laws decrease the transmission of HIV across the U.S. population and simply perpetuate the perceived stigma of having a positive HIV diagnosis.⁴⁵

A study done by researchers in South Carolina found similar consequences of nondisclosure laws in South Carolina.⁴⁷ Cann et al. ran a database search by reviewing legal case reports within South Carolina concerning prosecutions of transmission of HIV, noting that the nondisclosure laws that are held in South Carolina were disproportionately affecting the African American MSM populations that had a positive HIV status.⁴⁷ The authors also noted the inequitable aspects of penalties for the nondisclosure laws in South Carolina with some sentences greater than 10 years for HIV transmission in comparison to the average murder sentences having a range from 1 to 10 years.⁴⁷

Another study was done by Lichtenstein et al. comparing health care providers' approaches in counseling on HIV nondisclosure in two Southern states—Alabama and North Carolina—which have different HIV nondisclosure laws.⁴⁸ They interviewed 20 health care providers that served PLWH from each state, with 30% of the participants being physicians.⁴⁸ The researchers found that the laws in North Carolina were more punitive in terms of sentences compared to Alabama; they also found that the providers in North Carolina more often than not took a law-centered approach when explaining the nondisclosure responsibilities to their patients whereas the providers in Alabama took a client-centered approach.⁴⁸ These aspects were noted in the difference in formality when consenting patients in either state regarding the HIV disclosure obligations that patients have; the providers in North Carolina held a formal consent process requiring signatures whereas the providers in Alabama held informal discussions about the HIV disclosure.⁴⁸ However, in both states there was an overwhelming resentment of such laws by the physicians in this study citing their patients lower levels of trust when disclosing aspects of their HIV care.⁴⁸

A survey was done by Galletly et al. in New Jersey in a sample of 479 PLWH from Mar 2010 to Oct 2010, in order to assess the correlations of

knowledge of the HIV nondisclosure laws in PLWH and their attitudes and behaviors concerning HIV.⁴⁶ The researchers initially hypothesized that knowledge of the presence of HIV nondisclosure laws in New Jersey would be correlated with higher perceived stigma in PLWH; yet, their results found that PLWH not having knowledge of the aforementioned laws was correlated with higher perceived stigma.⁴⁶ Noteworthy aspects of this study were that roughly 67% of the participants were African American, 51% were female, and approximately 83% of the participants reported being compliant with the HIV nondisclosure laws in New Jersey.⁴⁶

In 2018, a panel of medical, legal, and public health scholars convened in order to readdress HIV criminalization policy and advocate for policies based on current science, publishing an international consensus report.⁴⁹ In this report, the researchers state that there are mechanisms available that make transmission of HIV from a PLWH to person that is HIV negative statistically impossible such as: correct male or female condom usage, or a PLWH on ART with an undetectable viral load: yet, there are laws still in place in several countries—including the U.S.—in which a PLWH can be prosecuted for biting someone else.⁴⁹ The authors argued that actions such as biting or spitting do not lead to the transmission of

HIV because there is virtually no virus in saliva. The experts argue that PrEP usage for people who are HIV negative has been shown to be up to 95% effective to preventing acquiring HIV, and HIV cannot be contracted from touching a surface that a PLWH has touched.⁴⁹ Moreover, the authors argue that laws concerning HIV transmission should be based on current science not on antiquated science when the disease was not treatable.^{49,50} Now, there has been a recent change in the U.S. Veteran Affairs (VA) policy concerning HIV disclosure—the VA health care facilities are allowed to disclose the negative HIV status of veterans to other health institutions without the veteran’s permission since HIV testing is now considered part of routine medical care and the department is concerned not releasing such records can delay veterans’ health maintenance.⁵¹ The decision was made at the federal level because of the decrease in stigma with HIV testing at a national level; yet, a positive HIV testing requires the veteran’s permission before being released to other health institutions, which subtly contradicts the notion that having HIV is not as stigmatized.⁵¹ This nuance in the VA policy hints at the lesser stigmatized view of being tested for HIV, even with the present stigma of having HIV—apparent in the need for need the veteran’s permission to disclose their positive HIV serostatus.

DISCUSSION

AIDS and COVID-19 have shown similar manifestations of stigma, but also present unique perspectives to how stigma occurs with infectious diseases. One similarity that the current COVID-19 pandemic exhibits when comparing it to the HIV/AIDS epidemic in the U.S. in the late 20th century is the blame casted on a subpopulation for the infectious disease. The studies done on the Twitter posts in the spring of 2020 denote the labeling of the SARS-CoV-2 as having Chinese origin by utilizing language such as the “Chinese virus” or the “Wuhan virus.”^{19,20} By labeling the virus in such a way, people are subtly adding blame on the spread of the SARS-CoV-2 on people of Asian heritage because of the association with the origin. This blame can lead to the stigmatization of Asian Americans for the current COVID-19 pandemic, discrimination towards Asian Americans then follows. However, the stigma that Asian Americans have due to the COVID pandemic is rooted in unsupported assumptions that Asian Americans are more likely to spread SARS-CoV-2 simply due to their race, which is not grounded in scientific evidence. With the HIV/AIDS epidemic in the 1980s, the blame for the spread of HIV were individuals who were MSM and IVDU (in which the latter were not addressed in this review).²⁷ This is evidenced by the use

of labels such as “Gay Related Immune Deficiency” or the “gay plague” to describe AIDS.²⁷ Therefore, HIV transmission was blamed on individuals who were homosexual men. However, MSM are a demographic that are at higher risk of transmitting HIV, if they engage in high-risk sexual behaviors such as unprotected sex. Thus, it is the involvement in risky behavior that predisposes MSM to spreading HIV, which would be synonymous with Asian Americans spreading SARS-CoV-2 by not following social distancing measures as recommended by the Center of Disease Control (CDC).⁵² Furthermore, the stigma of COVID-19 and AIDS/HIV being diseases that are linked to these demographics is based on prejudice, not science.

Both infectious diseases have the theme of promoting isolation from those have the disease or are perceived to have the disease. In the 1990s, the studies conducted by Herek et al. demonstrated that there was a considerable fraction (about 20%) of the American people that would avoid going to places owned by PLWA.^{12,27,29} Studies conducted in PLWH in the early 21st century, recounted anecdotal evidence of family members isolating themselves from PLWH, by simple yet emotionally painful actions such as not using the same bathroom as the PLWH.^{53,54} When considering the COVID-19 pandemic, people isolate

themselves from others in order to avoid the spread of SARS-CoV-2 as directed by CDC guidelines.⁵² However, the difference in the isolation between the latter pandemic and the HIV epidemic is that the socially-distanced measures that are in place due to COVID-19 are based on concrete evidence that this helps stop the spread of the disease, whereas avoiding PLWH/A or items utilized by them is not based on science. These isolation measures that were taken as they pertain to HIV fueled more stigma towards PLWH. Considering the COVID-19 pandemic, it is imperative to denote that socially-distancing is not unnecessary isolation; but how Americans chose to approach their precautions can lead to instances of stigma if the isolation is extreme.

One important difference when considering the COVID-19 pandemic and the HIV/AIDS epidemic is the role that HCWs and health care institutions play in regard to the stigma of the particular disease. During the earlier months of the COVID-19 pandemic, the HCWs were the recipients of COVID-19-related-stigma by the general public who feared that the HCWs would spread SARS-CoV-2 due to their high exposure to the virus in the workplace.¹³ However, there is a dearth of academic literature of American HCWs being the recipients of HIV-related stigma as they cared for PLWH or PLWA. This can be due to what Dr. Sagoe-

Moses posits in the early 21st century: in the U.S. HCWs have ready access to treatment if they are exposed to HIV due to their occupation and their health expenses are generally covered.³⁴ However, this brings up a very interesting question. Does the fact that there are very few studies to support that HCWs were not stigmatized for working with PLWH because it is widely known that it is difficult to transmit HIV without bodily fluid contact or due to HCWs not necessarily having the stigmatized social identities that are tied to PLWH, such as engaging in risky behaviors? This is probably a reason why it would be easier for HCWs to see themselves as the “normals” of society and PLWH as the others.⁷

There is extensive academic literature indicating that PLWH sometimes prefer not to access their health care resources for HIV because of the fear of being stigmatized by the HCWs. This review illustrates the anecdotal evidence from the patients themselves as they perceived the providers as holding stigmatizing views toward their positive HIV serostatus, which subsequently leads to a decline in adhering to the ART treatments.^{53,54} The stigmatizing attitudes towards MSM from the health care providers can even result in patients who are at risk for acquiring HIV to not seek out preventive measures, such as

PrEP.^{42,43} This is due to the perception of patients having anticipated stigma that otherizes them from the providers who are doing their best to treat them. Thus, there are clear consequences for the presence of HIV-related stigma in health care institutions that compromise the quality of HIV care provided to the patients. Now, will stigma be relevant during the present COVID-19 pandemic with patients' willingness to access the required health care resources such as testing or getting vaccinated—only time will tell. Academics would have to investigate this further to see if the lessons learned from the HIV/AIDS epidemic were applied to the COVID-19 pandemic.

CONCLUSION

Stigma with infectious diseases such as COVID-19 and HIV/AIDS needs to be studied because there are direct consequences to the health care provided to patients and people who are ascribed to such diseases. Both COVID-19 and HIV/AIDS have instances of labeling or blaming minority groups for the diseases, exacerbating the stigma towards Asian Americans and MSM, respectively. Both of the infectious diseases have caused people to quarantine individuals believed to be ill, increasing the rates of mental health issues from the affected individuals. Both contain instances of stigma towards subpopulations due to fears that are not based on fact, and both show that words matter significantly when referencing a disease.

Now does the stigma during the current COVID-19 pandemic parallel to the stigma as it pertains to the HIV/AIDS epidemic? The answer is complicated. Both have classic examples of the stigmatized individuals suffering the physiological and mental consequences of stigma due to having the disease or being perceived by others as having the disease. Has the public health policy and educational training helped in curbing efforts to minimize the stigma towards

individuals due to HIV: partially. The extensive research in the field of HIV care and stigma shows encouraging results in that when health care providers are educated on HIV-related stigma, there is a realization that the prejudiced views one has as a provider are detrimental for patients. In regard to current policies in the United States—this nation can do much better in advocating for PLWH and minimizing the stigma. Abolishing antiquated laws of HIV transmission will help individuals who are PLWH or people who want to get tested for HIV and will be one step in the right direction for ending the epidemic of HIV in the U.S.. Addressing the laws that require PLWH to disclose their serostatus is a topic that requires serious consideration because if the laws are creating more stigma towards PLWH, then they need to be amended accordingly. This is all relevant to COVID-19 because it exemplifies that education and government action are critical for effective responses when handling infectious disease pandemics.

LIST OF JOURNAL ABBREVIATIONS

Adm Theory Prax	Administrative Theory & Praxis
AIDS Behav	AIDS and Behavior
Am Psychol	The American Psychologist
Ame J Public Health	American Journal of Public Health
Ann Behav Med	Annals of Behavioral Medicine
BMJ Open	British Medical Journal Open
Curr HIV/AIDS Rep	Current HIV/AIDS Reports
Depress Anxiety	Depression and Anxiety
Ethn Health	Ethnicity & Health
Front Mol Biosci	Frontiers in Molecular Neuroscience
Gen Hosp Psychiatry	General Hospital Psychiatry
Harm Reduct J	Harm Reduction Journal
Infect Dis Rep	Infectious Disease Reports
Int J Envir Res Public Health	International Journal of Environmental Research and Public Health
J Anxiety Disord	Journal of Anxiety Disorders
J Gerontol Ser B	The Journals of Gerontology. Series B
J Immigr Minor Health	Journal of Immigrant and Minority Health

J Int AIDS Soc	Journal of the International AIDS Society
J Int Assoc Provid AIDS Care	Journal of the International Association of Providers of AIDS Care
J Med Internet Res	Journal of Medical Internet Research
JAMA	Journal of the American Medical Association
N Engl J Med	New England Journal of Medicine
PLoS ONE	Public Library of Science One
Publ Soc Behav Med	A Publication of the Society of Behavioral Medicine
West J Med	The West Journal of Medicine

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