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Sexual Health Services During the COVID-19 Pandemic

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SEXUAL HEALTH SERVICES DURING THE COVID 19 PANDEMIC: A CROSS
SECTIONAL STUDY

A Thesis
Presented to the
Faculty of
California State University,
San Bernardino

In Partial Fulfillment
of the Requirements for the Degree
Master of Public Health

by
Thomas Charles Roland

May 2022

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May 2022

Approved by:

Monideepa Becerra, Committee Chair, Health Science and Human Ecology

Robert Avina, Committee Member, Health Science and Human Ecology

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ABSTRACT

Background: The COVID-19 pandemic created a unique situation for healthcare providers worldwide. The highly infectious nature of the COVID-19 virus required many countries to impose strict lockdowns and limit access to select health services such as sexual health services. The present study was designed to explore the role of the COVID-19 pandemic on healthcare services, specifically sexual health services.

Methods: A cross-sectional study design was selected to evaluate the burden of the pandemic on sexual health services. Participants responses were obtained anonymously using an online survey. Data was analyzed through descriptive statistics and bivariate analyses using IBM SPSS version 28. Results were determined to be significant if $p < .05$.

Results: A higher proportion of the study population reported that they felt healthcare services had been limited (56.4%). Approximately 1 in 6 study participants reported that they felt mistreated at a healthcare facility, and a common reason for patient mistreatment was poor patient-clinician communication.

Conclusion: In order to expand access to sexual health services, future research needs to examine the effectiveness of increasing operational hours of healthcare facilities.

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CHAPTER ONE

LITERATURE REVIEW

Overview

The following will outline the 2019 coronavirus disease (COVID-19) in terms of its origins, its magnitude, and its effect on susceptible populations and their access to sexual health services. Due to the complex and profound effects a pandemic has on individuals and their access to sexual health services, it is necessary to examine current literature as it becomes available. Based on the current literature, the general hypothesis is that the COVID-19 pandemic isolation period has restricted individuals from getting the sexual health services (testing, medications, checkups) they may have needed. Urgently, it can be hypothesized that there will be an increase in the incidence of specific problems related to sexual health as a result of the COVID-19 isolation period.

COVID-19

On December thirty-first of 2019, the World Health Organization (WHO) received reports that residents of Wuhan, China began to become violently ill with pneumonia-like symptoms (World Health Organization, 2021 & Huang et al., 2020). In response, on January second of 2020, the WHO set up the IMST (Incident Management Support Team) which set the organization in place to deal with the outbreak (World Health Organization, 2021). By January fifth of the same year, Chinese officials identified and shared the genetic sequence of the unknown pneumonia-like virus and two days later, a novel coronavirus was

identified as the causative agent in the rapidly developing outbreak (CDC, 2021). By January twenty-seventh of 2020, this novel coronavirus began to spread far beyond Wuhan with the WHO reporting ten confirmed cases in the Americas, 22 in Europe, 25 in South-East Asia, and 12,482 in the Western Pacific (World Health Organization, 2021). As cases continued to spread and new information about the novel coronavirus was discovered, on February eleventh, the virus would be given a name: COVID-19 (CDC, 2021). With COVID-19 rapidly spreading and with roughly 58,000 new cases globally as of March ninth, 2020 (World Health Organization, 2021); the WHO then declared COVID-19 a pandemic by March eleventh, 2020 (CDC, 2021).

Current research from the Centers for Disease Control and Prevention (CDC) and the WHO report that COVID-19 is a highly contagious respiratory virus that primarily spreads through direct transmission (World Health Organization, 2021 & CDC, 2021). Direct transmission of the virus occurs when an infected individual exhales (coughs or sneezes) droplets and fine particles which contain the virus, and an uninfected individual inhales these particles and droplets (CDC, 2021). Subsequently, current research from the WHO and Oh et al. (2021) suggests that it is possible, although not common, for the virus to be spread indirectly when individuals touch surfaces that have been contaminated with the virus and then proceed to touch their mouth, nose, or eyes. Current research (V'kovski et al., 2021; Haider et al., 2020) suggests that the virus may

be zoonotic in origin and have arisen from bats before a spillover event into humans.

Since the emergence of COVID-19 in Wuhan, the virus has spread worldwide. As cases of COVID-19 continued to rise, many countries (e.g., Germany, New Zealand, Australia, etc.) enacted strict measures such as lockdown measures, mask mandates, and social distancing to try and curb the spread of the virus. Despite numerous countries imposing lockdowns, the virus continued to spread in part due to individuals disobeying the lockdowns and violating mask mandates. Current reports from the CDC estimate that the mortality rate from COVID-19 centers around 860,000 deaths in the United States alone. The COVID-19 pandemic has placed an unprecedented burden on hospitals around the world and in the United States. In the beginning of the pandemic, hospitals were faced with increasing pressure where patients with human immunodeficiency virus (HIV) and those suffering from other diseases had to face infection from COVID-19 or interrupt their continuum of care (Linnemayr et al., 2021).

Restricted Access

The COVID-19 pandemic has presented a unique challenge for the healthcare industry and individuals who need sexual health services. Many countries enforced strict lockdowns which may have had the inadvertent effect of keeping select individuals from getting the resources that they needed (Linnemayr et al., 2021; Nagendra et al., 2020). Whilst lockdowns were imposed,

research is demonstrating that sexual activity was still ongoing during the pandemic. Stephenson et al. (2021) reports from a survey assessing sexual behaviors during the pandemic, some respondents reported a mean increase of 2.3 sexual partners during the pandemic, with some participants not practicing safe sex. One of the hardest hit states in the United States was New York. New York was significantly affected by the COVID-19 pandemic and as Nagendra et al. (2020) reports, sexual health services were reduced in order to prioritize the fight against the virus. In order to examine how the pandemic was affecting access to sexual health services Nagendra et al. (2020) conducted an online survey. The researchers found that during the pandemic, there were significant reductions in the availability of sexual health services. The study found as of April 1, 2020, just 25% of testing sites were able to offer HIV testing, which again represents a significant reduction in access to these services. Further research from Santos et al. (2020) found similar results. Upon investigating the access to HIV related services among men who have sex with men (MSM), the researchers reported that 23% of the participants in their study lost access to HIV care as a result of the social isolation protocols. Further exploration into the disruption of sexual health services from Pinto et al. (2021) found that routine testing of gonorrhea and chlamydia had been disrupted during the COVID-19 pandemic. In their study, the researchers found testing of gonorrhea and chlamydia had decreased 59% for males and 63% for females in the study at the beginning of April 2020.

HIV/STI At Risk Group

HIV can infect any individual regardless of age, race/ethnicity, or sexual orientation, but there are groups of individuals that are disproportionately affected by sexually transmitted infections (STIs). The CDC reports that gay and bisexual men are at an increased risk of HIV infection compared to the general population (CDC, 2021) . In 2019 alone, 69% of new HIV infections in the United States were attributed to gay and bisexual men (CDC, 2021). When stratified by race and ethnicity, the data shows a disparity in HIV infection. Compared to other races/ethnicities, African Americans and Hispanics/Latinos are disproportionately affected by HIV infection, in that the rates are higher (CDC, 2021) . In addition to sexual orientation, age is a significant risk factor for HIV infection (CDC, 2021). In 2019 the CDC found that 21% of new HIV cases were attributed to youths aged 15-24 with the CDC also reporting that young individuals are less likely to be tested and aware of their HIV status (CDC, 2019).

CHAPTER TWO

METHODS

Study Design

The current study employed a cross sectional design to explore the role of the COVID-19 pandemic on health services, especially sexual health services among college students.

Data Collection

Data was collected from college students aged 18 years or older at a southern California institution of higher education. The university primarily serves the Riverside and San Bernardino county areas, with current enrollment at 19,404 students. The university population is predominantly female, with 63% of students identifying as female and 37% identifying as male. Participants who met the selection criteria were eligible to participate in the study. All participants were given the informed consent form and those who elected to participate completed the electronic survey on a computer. Participants were incentivized with extra credit that was provided from their professor for completing the survey. All data were collected anonymously, and a random sample analyzed to prevent accidental identification resulting from unique crosstabulations.

Measures

The following variables were of primary focus in this study: the effect of the COVID-19 isolation on access to sexual health services, worsened physical

health due to the COVID-19 isolation, and experience of discrimination in a healthcare setting.

To measure the effect of the COVID-19 pandemic isolation on access to sexual health services, the following research questions were used in the survey, with participants responding “yes” as the primary response of interest:

“I have needed the following healthcare services during the pandemic”

“I feel the availability of healthcare services has been limited due to the pandemic”

Worsened physical health due to the COVID-19 isolation was measured using the following question from the survey and participants who responded “yes” were evaluated:

“I feel my physical health status has gotten worse due to COVID-19 related isolation”

Experience of discrimination in a healthcare setting was measured if participants responded “yes” to the question:

“Have you ever felt mistreated at a healthcare facility/clinic/medical center or by a healthcare professional”

Data Analyses

To determine what percentage of the study population reported limited availability of healthcare services, descriptive statistics was conducted using SPSS version 28 (IBM, Corp.).

To determine what percentage of the study population sought sexual health services during the pandemic, descriptive statistics was conducted using IBM SPSS version 28 (IBM, Corp.).

To determine what percentage of the study population reported feeling mistreated at a healthcare facility, descriptive statistics was conducted using IBM SPSS version 28 (IBM, Corp.).

To determine what percentage of the study population reported that their physical health had worsened due to the COVID-19 related isolation, descriptive statistics was conducted using IBM SPSS version 28 (IBM, Corp.).

To determine if an association existed between sex at birth and seeking sexual health services, a Pearson Chi-Square test was performed using IBM SPSS version 28 (IBM, Corp.), with p less than .05 denoting significance.

Ethics

The current study was approved by the Institutional Review Board (IRB-FY2022-146). To ensure respect for all persons involved, informed consent forms were distributed. Participation in this study was voluntary and participants could leave the study at any point without negative ramifications to their academics. In order to ensure beneficence, all efforts possible were made to reduce any harm to the participants and increase benefits. Incentives were provided as part of increasing the benefits to the participants. The survey was made anonymous to ensure that participants would not feel fear of risking identification in answering sensitive questions. During data analysis, random sampling was employed to

prevent novel cross-tabulations as well that could indirectly identify a participant in rare cases. All participants were treated in accordance with the ethical standards set forth by the Institutional Review Board and with the Belmont Report of 1979 (National Commission for the Protection of Human Subjects of Biomedical and Behavioral Research, 1979).

CHAPTER THREE

RESULTS

Demographics

Table 1 shows the demographics of the study population. A larger percentage of the study population were females (69.9%), aged 18-20 years (39.1%), and Hispanic/Latino (63.2%).

Table 1. Demographic Characteristics of Study Population. N=133

Sex	%	Race/Ethnicity	%	Age	%
Male	29.3%	Asian, Pacific Islander/Hawaiian Native	12.8%	18-20	39.1%
		Black/African-American (Non-Hispanic)	6.8%	21-23	28.6%
		Hispanic/Latino	63.2%	24-26	10.5%
Female	69.9%	Other, please write what	2.3%	27-29	6.0%
		Two or more	3.0%	30 or above	15.0%
		White (Non-Hispanic)	11.3%		

Descriptive Statistics

Table 2 illustrates the results of a frequency analysis examining what percentage of the study population who reported limited availability of healthcare services. As the table displays, a majority of the study population (56.4%) reported limited availability of healthcare services.

Table 2. Reported Limited Availability of Healthcare Services

Response	Percent
Yes	56.4%
No/Not sure	43.6%

Table 3 illustrates the results of a frequency analysis exploring what percentage of the study population who sought sexual health services during the pandemic. As the table illustrates, only 15.8% of the study population sought sexual health services during the pandemic.

Table 3. Seeking Sexual Health Services

Response	Percent
Yes	15.8%
No	84.2%

Table 4 illustrates the results of a frequency analysis examining what percentage of the study population who reported feeling mistreated at a healthcare facility. As the table shows, 17.4% of the study population reported feeling mistreated at a healthcare facility.

Table 4. Reported Feeling Mistreated at Healthcare Facility

Response	Percent
Yes	17.4%
No	82.6%

Table 5 illustrates the results of a frequency analysis examining what percentage of the study population who reported that their physical health has worsened due to the COVID-19 related isolation. As shown in the table 26.5% of

the study population reported that their health had worsened due to the COVID-19 related isolation.

Table 5. Physical Health Has Declined Due to COVID-19 Related Isolation

Response	Percent
Yes	26.5%
No	73.5%

Table 6 illustrates the results a bivariate analysis (chi-square test) on the association between sex at birth and seeking sexual health services during the pandemic. As shown in table 6, there was not a significant association between sex at birth and seeking out sexual health services ($p = .095$).

Table 6. Sex at Birth and Seeking Sexual Health Services

Seeking Sexual Health Services	Sex at Birth	
	Female	Male
No	73.9%	74.4%
Yes	26.1%	25.6%

Table 7 illustrates the results of a thematic analysis on why the study population reported feeling mistreated by a healthcare facility/clinic/medical center or by a healthcare professional. As shown in Table 7, a common theme was poor patient-clinician communication or interaction.

Table 7. Mistreated by a Healthcare Facility/Clinic/Medical Center or by a Healthcare Professional.

“The PCP interrupted visit to go see another patient while we were changing rooms, and kept me waiting more than 20 minutes.”
“The PCP went to see another patient while we were moving rooms. she kept me waiting more than 20 minutes.”
“The physician said I act like dirt when I came in for evaluation.”

CHAPTER FOUR

DISCUSSION

The purpose of this study was to explore the role of the COVID-19 pandemic on healthcare services, specifically sexual health services. In order to evaluate the research questions, a cross-sectional study design was selected. In order to evaluate the results, statistical analyses (descriptives, bivariate) were employed. The results highlighted several key findings: a higher prevalence of the study population reported limited availability of healthcare services, approximately 1 in 6 study participants reported feeling mistreated at a healthcare facility, and a common reason for patient mistreatment was poor patient-clinician communication.

A majority of the study population reported limited availability of healthcare services. Limited availability of healthcare services increases the disease burden on individuals with an illness, while also having a disproportionate burden on vulnerable populations. If there is a perception that healthcare is limited, then this may prevent individuals from seeking preventive care. Additionally, college students are burdened by a decreased accessibility of healthcare services as a result of the operational hours of many healthcare facilities. Many healthcare facilities are open during hours when college students are in class, which may impact their ability to access such needed services. Future research should look into the effectiveness of increasing the hours of campus healthcare facilities. At

the community level, hours of operation should be expanded beyond regular operational hours, such as nights and weekends, amongst nonprofits and community clinics that provide sexual health services. Future research should assess the various types of incentives that lead to different operational hours.

Approximately 1 in 6 study participants reported feeling mistreated at a healthcare facility. Feeling mistreated in a healthcare facility may increase the likelihood that an individual does not seek out health services. Not only does this impact the health and safety of the individual, but when they do not seek out health services, their disease burden is increased. This also poses a significant problem to vulnerable populations who have limited access to health services to begin with by adding an additional barrier to healthcare (Decker et al., 2021). Future research should examine the ways patients are being mistreated in healthcare facilities and explore methods for addressing the mistreatment.

A common theme for patient mistreatment was poor patient-clinician communication. Poor patient-clinician communication is detrimental to a patient's health. Unclear communication between patient and clinician results in the patient not receiving the care that they need. Poor patient-clinician communication also deters the patient from returning to that healthcare facility or subsequent healthcare facilities for the fear of being mistreated again. This also serves to increase the disease burden on the individual because they are not getting the care they need. Additionally, poor patient-clinician communication may increase the burden of HIV/STIs for individuals who do not discuss testing

due to cultural and ethnic differences or sexual orientation. Research from Ratanawongsa et al. (2012) demonstrates that high quality patient-clinician communication is important in chronic disease care, including HIV. Future research should examine the effectiveness at increasing cultural sensitivity training at healthcare facilities within the community and on campuses. Additionally, future research should explore the effectiveness of increasing the availability of health literacy for patients to aid them in understanding the health services they may need.

Limitations

A major limitation for cross-sectional study designs lies within their simultaneous assessment of exposure and outcome. As a result, there is effectively no evidence of a temporal relationship between exposure and outcome (Carlson & Morrison, 2009). This suggests while it is possible to determine an association between exposure and outcome, there is not sufficient evidence to suggest that the exposure caused the outcome.

Strengths

A major strength for this study was the incentive of extra credit for those who elected to participate in the study. By providing an incentive to those who participated in the study, selection bias is reduced (Hsieh, & Kocielnik, 2016; Marinescu et al., 2021). Another strength of this study was the anonymity of the survey. Prior research (Joinson, 1999) has demonstrated that when a survey is completed anonymously, social desirability bias is reduced.

APPENDIX A
IRB APPROVAL LETTER

February 22, 2022

CSUSB INSTITUTIONAL REVIEW BOARD

Protocol Change/Modification

IRB-FY2022-146

Status: Approved

Prof. Monideepa Becerra
CNS - Health Science
California State University, San Bernardino
5500 University Parkway
San Bernardino, California 92407

Dear Prof. Becerra:

The protocol change/modification to your application to use human subjects, titled "Student health needs assessment-Third round" has been reviewed and approved by the Chair of the Institutional Review Board (IRB). A change in your informed consent requires resubmission of your protocol as amended. Please ensure your CITI Human Subjects Training is kept up-to-date and current throughout the study. A lapse in your approval may result in your not being able to use the data collected during the lapse in your approval.

This approval notice does not replace any departmental or additional campus approvals which may be required including access to CSUSB campus facilities and affiliate campuses. Investigators should consider the changing COVID-19 circumstances based on current CDC, California Department of Public Health, and campus guidance and submit appropriate protocol modifications to the IRB as needed. CSUSB campus and affiliate health screenings should be completed for all campus human research related activities. Human research activities conducted at off-campus sites should follow CDC, California Department of Public Health, and local guidance. See CSUSB's [COVID-19 Prevention Plan](#) for more information regarding campus requirements.

You are required to notify the IRB of the following by submitting the appropriate form (modification, unanticipated/adverse event, renewal, study closure) through the online Cayuse IRB Submission System.

- 1. If you need to make any changes/modifications to your protocol submit a modification form as the IRB must review all changes before implementing them in your study to ensure the degree of risk has not changed.**
- 2. If any unanticipated adverse events are experienced by subjects during your research study or project.**
- 3. If your study has not been completed submit a renewal to the IRB.**
- 4. If you are no longer conducting the study or project submit a study closure.**

You are required to keep copies of the informed consent forms and data for at least three years.

If you have any questions regarding the IRB decision, please contact Michael Gillespie, Research Compliance Officer. Mr. Gillespie can be reached by phone at (909) 537-7588, by fax at (909) 537-7028, or by email at mgillesp@csusb.edu. Please include your application approval number IRB-FY2022-146 in all correspondence.

Best of luck with your research.

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