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Review Article

INVESTIGATING THE HEALTH IMPACTS OF SEXUAL VIOLENCE ON WOMEN IN BUHERA DISTRICT, MANICALAND PROVINCE, 2023-2024

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A Research Project Submitted In Partial Fulfillment of The Requirements For The Degree of Bachelor of Medical Laboratory Sciences Honours In The College of Health, Agriculture and Natural Sciences.

ABSTRACT

This study investigates the health impacts of sexual violence on women in Buhera district, Manicaland Province, Zimbabwe, during the period of 2023 and 2024. Sexual violence remains a significant public health issue, adversely affecting the physical, psychological, and emotional well-being of survivors. The objectives of this research include to assess the physical health consequences of sexual violence on women in Buhera district, Manicaland province, to examine the psychological effects, including depression, anxiety, Post-Traumatic Stress Disorder (PTSD) and bacterial diseases, among survivors of sexual violence. To identify the social and economic impacts experienced by women who have survived sexual violence as well as to evaluate the accessibility and utilization of healthcare and support services by survivors. The study utilized a mixed-methods approach, combining quantitative data collection through surveys and qualitative interviews to gain a comprehensive understanding of the experiences of survivors. Key objective was to examine the health effects of sexual violence on women in Buhera district, Manicaland province. From the study, more than 40% of the sexual violence survivors reported Bacterial vaginosis, sexually transmitted infections, depression and PTSD during the specified timeframe of 72 hours of incidence in the year 2023 to 2024. To address health impacts of sexual violence, implementation of accessible healthcare services, trauma-informed care, comprehensive support systems for survivors, raising community awareness and providing education on available resources is crucial in empowering sexually violated women to inquire help. Ultimately, these efforts contribute to improved health outcomes for survivors and foster a more supportive environment and informed community.

KEYWORDS: Sexual violence, health impacts, survivors.

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1 INTRODUCTION

1.1 Introduction

The intersection of sexual violence and health outcomes is a critical area of research, particularly in Buhera district where cultural, social, and economic factors contribute to the prevalence of such violence. The impact of sexual violence on women's health is profound, not only in terms of immediate physical injuries but also with long-term psychological and reproductive health consequences. For example, sexually transmitted infections (STIs) trauma-related issues, anxiety, post-traumatic stress disorder (PTSD), flashbacks, nightmares, difficult emotions, and unwanted pregnancies (Avocacy, 2018).

Understanding the spectrum of health issues associated with sexual violence is essential for developing effective interventions and support systems for survivors. The

effects of sexual violence on women who have been raped in Buhera district was considered, including psychological effects. Survivors may experience a range of emotional and psychological challenges that require tailored interventions. By highlighting the diseases associated with these cases, we foster a greater understanding of the need for comprehensive healthcare responses and the importance of supporting survivors in their recovery journey. This research is a step towards improving health outcomes for women but as well as a call to action for communities, healthcare providers, and policymakers to address the pervasive issue of sexual violence and its far-reaching consequences.

Research on the health implications of sexual violence is not only vital for individual healing but also for informing policy and community health initiatives. By examining the

health impacts associated with sexual violence in Buhera over a two-year period, the study aimed to provide data that can be used to advocate for better healthcare services, educational programs, and community support mechanisms. This data can also be instrumental in training healthcare providers to recognize and respond appropriately to the needs of survivors, ensuring that they receive the comprehensive care necessary to address both immediate and long-term health issues.

1.2 Background study

Health impacts associated with sexual violence have been significantly high with lasting effects on victims' health. Globally, 71.3% of women raped suffered the impact of diseases spread through sexual violence. Thus approximately 16.4 million women in the United States of America. The diseases included vaginal tears, sexually transmitted infections (STI), irritable bowel syndrome, frequent headaches and chronic pain (Kathleen C Basile, 2020).

Continently, in Africa, sexual violence has increased in women, for example in Zaria, Nigeria 16% of girls below 5 years experienced STDs from sexual assault. Older than 8 years women experienced continual bleeding and bacterial infections, involuntary urine leakages, childbirth difficulties as well as death (Kimani, 2007). In South Africa 25% of women reported rape experience. The women experienced post-traumatic stress disorder (PTSD), depression, HIV/AIDS, sexually transmitted infections (STIs), unwanted pregnancy which results in low birth weight prematurity and fetal death. (Naeemah Abrahams, 2020).

In Zimbabwe, more than 900 girls with age below 12 years have been treated against sexually transmitted diseases through the Genito-Urinary Centre in the year 1990. (Kimani, 2007). In 2022, an average of 646 women were being raped every month, to give a rate of 7752 rape cases yearly, as stated by the Zimbabwe Gender Commission. Among the cases, a third was a percentage of girls below the age of 18 years. Rape cases in Zimbabwe are startlingly high, they are alarming. (Nyambezi, 2022).

However, there is limited research on the diseases associated with sexual violence in Buhera district, Manicaland province, Zimbabwe. Yet there is urgent need for comprehensive support and preventive measures of reducing long-term effects on health. Hence, this report aimed to fill that gap by examining vaginal bacteria isolated in sexually violated women, providing insights into the microbiological implications of sexual violence and examining other health impacts of sexual violence in women staying in Buhera district, Manicaland province, Zimbabwe.

1.3 Statement of the problem

Sexual violence against women is a pervasive public health issue with far-reaching consequences. In Zimbabwe,

prevalence of sexual violence remains alarmingly high, 214 girls under the age of 18 were being raped every month, in year 2022 (Nyambezi, 2022) contributing to severe physical, psychological, and social health impacts. Despite efforts to address gender-based violence, many survivors face barriers to accessing healthcare, legal support, and psychosocial services. The lack of comprehensive data on the specific health outcomes for survivors in this region hampers the development of targeted interventions and policies. This study aimed to investigate the health impacts of sexual violence on women in Buhera district of Manicaland Province from 2023 to 2024, providing critical insights into the needs of survivors and the effectiveness of existing support systems.

1.4 Research Objectives

1.4.1 Broad Objectives

To investigate the health impacts of sexual violence on women, in Buhera district, Manicaland Province between 2023 and 2024.

Research Objectives

1. To assess the bacterial diseases and physical health consequences of sexual violence on women in Buhera district.
2. To examine the psychological effects, including depression, anxiety, and Post-Traumatic Stress Disorder (PTSD), among survivors of sexual violence in Buhera district.
3. To identify the social and economic impacts experienced by women who have survived sexual violence.
4. To evaluate the accessibility and utilization of healthcare and support services by survivors.

1.5 Research questions

1. What are the bacterial diseases and the physical health outcomes experienced by women who have survived sexual violence in Buhera district?
2. How does sexual violence affect the psychological well-being of women in Buhera district?
3. What social and economic challenges do survivors of sexual violence face?
4. What barriers and facilitators influence the access and utilization of healthcare and support services for survivors?

1.6 Justification of the study

The study's importance lies in its evaluation of the impacts of diseases associated with sexual violence in women staying in Buhera district, Manicaland Province, Zimbabwe. The goal of the study was to uncover the vaginal bacteria isolated in sexually violated women. The research also aimed to identify the psychological, the physical consequences and other diseases associated with sexual violence in women. The impacts of those diseases associated with rape cases were taken into consideration. The study also looked at recommend strategies to try rehabilitate the women affected and find ways to prevent

long term effects of sexual violence as well as death from sexual violence as a root cause.

1.7 Delimitation of the study

Some restrictions had an impact on the study. Due to the potential stigma associated with disclosing one's health state, data gathering encountered resistance, reluctance, and hesitation. The confidentiality of medical records made it difficult for some individuals to cooperate and provide data that was essential to the study. Some of the rape cases were under police investigations in search of perpetrator, making it difficult for health facility to give full data of their rape cases. The data was limited for not everyone sexually violated reported their case due to different reasons for example, socio-cultural factors and traditional norms. Lack of resources, such as transportation, prevented this study from reaching its full potential by requiring survivors to travel to hospitals to seek medical aid.

1.8 Summery

Reports from various organizations indicate a rising trend in reported cases of sexual violence, with women being disproportionately affected. Sexual violence cases and diseases transmitted through sexual violence is a widespread problem that has been observed in many different continents including Africa, America and Asia. It has been recognized as one of the primary health issues, that woman worldwide experience on monthly basis. Some of the health impacts associated with rape cases includes, sexually transmitted infections (STIs), pelvic inflammatory disease, irritable bowel syndrome, and psychological disorders such as depression, post-traumatic stress disorder (PTSD). A significant number of rape cases go unreported due to stigma, fear of victim-blaming, and lack of access to healthcare services. This silence exacerbates the health consequences faced by survivors, who may experience a range of diseases stemming from transmission by perpetrator. Yet diseases associated with sexual violence can be minimized through early treatment, reporting within 72 hours of incident. Thereby specific treatment to infections like yeast, gonorrhea, *Trichomonas vaginalis* and many other are given to patient before extreme damage to health has happened. This can easily be done if people are aware of the fatal effects hence action can be taken if such case happens to them. By exploring these dimensions, I aimed to create a holistic understanding of the consequences of sexual violence and possible solutions to minimize fatal effect to rape victims. As well as raising awareness about the urgent health issues faced by women who have experienced sexual violence in Manicaland province.

2 REVIEW OF RELATED LITERATURE

2.1 Introduction

1. The issue of sexual violence, particularly rape, is a pervasive violation of human rights that carries profound implications for the health and well-being of survivors. In Buhera district Manicaland Province, Zimbabwe, the interplay between sexual violence and

women's health has garnered increasing attention, prompting a need for comprehensive research to understand the associated medical and psychological consequences. This literature reviewed systematically explored several critical health outcomes of sexual violence in women. Firstly, I assessed the physical health consequences of sexual violence on women in Buhera District. Secondly, I examined the psychological effects, including depression, anxiety, post-traumatic stress disorder (PTSD) and bacterial diseases among survivors of sexual violence providing insights into the microbiological implications of sexual violence. Understanding the frequency and types of bacteria present, illuminate potential risks for infections and inform treatment protocols for survivors. Thirdly, identified the social and economic impacts experienced by women who have survived sexual violence. Finally, I evaluated the accessibility and utilization of healthcare and support services by survivors. I contributed to the broader discourse on sexual violence and health, emphasizing the urgent need for research, policy, and practice that addresses the complex realities faced by women in Buhera District in Manicaland Province.

2.2 Conceptual Framework

Conceptual Framework

This study was guided by the Ecological Model of Health and the Health Impact Framework.

1. Ecological Model of Health

This model emphasizes the interplay between individual, interpersonal, community, and societal factors in influencing health outcomes. It is relevant for understanding how various levels of influence affect the health impacts of sexual violence on women.

Individual Level: Which is the Physical injuries, psychological trauma, and health-seeking behaviour.

Interpersonal Level: Family support, intimate partner relationships, and social networks.

Community Level: This encompass Community norms, availability of healthcare services, and local support systems.

Societal Level: Legal frameworks, cultural beliefs, and national policies addressing gender-based violence.

2. Health Impact Framework

This framework categorizes the health impacts of sexual violence into physical, psychological, and social domains, allowing for a comprehensive assessment.

- Physical Health Impacts: Injuries, sexually transmitted infections (STIs), reproductive health issues.
- Psychological Health Impacts: Post-traumatic stress disorder (PTSD), depression, anxiety.
- Social and Economic Impacts: Stigmatization, loss of employment, reduced social functioning.

Relevance of the Conceptual Framework

The Ecological Model of Health provides a multi-dimensional perspective, enabling the study to capture the

complex interactions between personal experiences and broader societal influences on health outcomes. **The Health Impact Framework** ensures a systematic approach to identifying and categorizing the diverse health consequences of sexual violence. Together, these frameworks guide data collection, analysis, and interpretation, ensuring that the study addresses the multifaceted nature of sexual violence and its effects on women in Buhera district.

LITERATURE REVIEW IN RELATION TO OBJECTIVES

2.3 Bacterial diseases and physical health consequences of sexual violence on women in, Buhera district

Looking into literature of physical health consequences of sexual violence on women in Buhera district. Women who have experienced sexual violence are at a significantly higher risk for various chronic health conditions. Studies have found associations between sexual violence victimization and conditions such as asthma, irritable bowel syndrome, and chronic pain.

On vaginal bacteria isolated in women who have experienced sexual violence, usually encounter/suffer bacterial vaginosis (BV), a disease which is characterized by both a polymicrobial anaerobic overgrowth of the vaginal mucosa and a partial loss of the natural vaginal lactobacilli. Along with vulvovaginal candidiasis, BV is still the most common cause of vaginitis, despite the fact that it is frequently asymptomatic. The prevalence of BV in high-risk populations, are high as 50-60% (Christian T Bautista, 2016) A disturbance of the normal vaginal flora, wherein beneficial *Lactobacillus* species are replaced by a range of anaerobic bacteria, such as *Gardnerella vaginalis* and *Mobiluncus* species, is the hallmark of bacterial vaginosis. This condition is associated with increased susceptibility to STIs and prevalent among women who encounters sexual assault. Because BV is linked to both sexually transmitted diseases and ascending genital tract infections, it has become a major worldwide concern in recent years. Infections caused by sexually transmitted agents and opportunistic infections with bacteria linked to BV can be generically classified as BV-related infections. Those women with BV are more susceptible to contracting human immunodeficiency virus type 1 (HIV-1), herpes simplex virus type 2 (HSV-2), *Chlamydia trachomatis*(CT), *Neisseria gonorrhoeae*(NG), and *Trichomonas vaginalis*(TV). (Hans Verstraelen, 2010) Other bacteria commonly associated with BV include *Prevotella* spp. and *Mycoplasma hominis*, which may also be present in sexually assaulted women. The sexual behavior significantly influences the vaginal microbiome. Increased sexual activity, particularly with multiple partners, is linked to higher rates of BV and associated bacteria. If then a man involved in multiple women, rapes a woman, the bacteria is spread then victim gets infected. The relationship between multiple partners and vaginal microbe underscores the potential for altered vaginal flora in women who have been sexually violated, as trauma and

subsequent sexual contact can lead to changes in microbial populations. (Francia, 2023)

2.4 Psychological effects, including depression, anxiety, and PTSD among survivors of sexual violence

Secondly, the psychological effects of sexual violence including depression, anxiety, PTSD and bacterial diseases, among survivors of sexual violence. violence victimization and the development of depression and anxiety disorders. Survivors often report feelings of hopelessness, self-blame, and emotional distress. Among women who have experienced sexual violence the risk of suicidal thoughts and attempts is significantly elevated. Research indicates that 23% to 44% of survivors experience suicidal ideation, with a smaller percentage attempting suicide (Emily R Dworkin, 2017) Victims of sexual violence are at an increased risk for STIs. Approximately 12.3% of rape victims reported contracting an STI as a result of their victimization. Specific studies have shown that women who experienced forced sex were more likely to be diagnosed with chlamydia, herpes, and genital warts (Kathleen C Basile, 2020).

Post-Traumatic Stress Disorder (PTSD) is one of the most prevalent mental health outcomes for survivors of sexual violence. Studies indicate that a significant percentage of survivors develop PTSD symptoms following the assault, which can lead to chronic anxiety and emotional disturbances. The prevalence of depression and anxiety disorders is markedly higher among survivors of sexual violence. Research shows that many survivors experience severe emotional distress, which can persist long after the incident. This emotional turmoil can manifest in various ways, including feelings of hopelessness and self-blame. Studies have shown that a substantial number of survivors of sexual violence contemplate suicide, with some attempting it. This highlights the critical need for mental health support for those affected by sexual violence. Additionally, women with a history of sexual violence are more likely to experience cardiovascular issues, including hypertension and heart disease (Jeanie Santaularia, 2014). Sexual violence has been linked to increased rates of disability among survivors. Many women report activity limitations due to physical, mental, or emotional problems stemming from their experiences. Survivors of sexual violence often engage in health risk behaviors in trying to console to situation, which then exacerbate chronic health issues. These include higher rates of smoking, heavy drinking, and substance abuse, which are associated with increased risks for various chronic diseases (Jeanie Santaularia, 2014) The prevalence of Post-Traumatic Stress Disorder (PTSD) among rape survivors is notably high, with studies indicating that 17% to 65% of individuals with a history of sexual assault develop PTSD. This condition can lead to a range of other mental health issues, including anxiety and depression. Also, numerous studies have established a strong correlation between sexual.

2.5 Social and economic impacts experienced by women who have survived sexual violence

The social and economic impacts experienced by women who have survived sexual violence include Sexually Transmitted Infections (STIs) which require funds to pay for culture tests in the laboratory as well as buy medications such as antibiotics in pharmacies. The risk of contracting STIs is notably higher among rape survivors. Approximately 12.3% of women who have experienced sexual violence report acquiring an STI as a direct result of the assault. Also, survivors of sexual violence are at a significantly increased risk for various chronic diseases such as asthma, irritable bowel syndrome, and chronic pain compared to those who have not been victimized. Additionally, studies have linked sexual violence to serious health issues like hypertension and heart disease. Many survivors sustain immediate physical injuries during the assault, including bruises and genital trauma. About 39.1% of rape victims report experiencing some form of injury, which can lead to long-term health complications if not properly addressed. (Marissa Zwald, 2021). Common infections include chlamydia, herpes, and other sexually transmitted diseases, which can have lasting health implications if not treated promptly (Emily R Dworkin, 2017).

2.6 To evaluate the accessibility and utilization of healthcare and support services by survivors

Possible solutions to access and utilization of healthcare and support services by survivors of sexual violence include immediate medical care by engaging primary health care workers in rural districts, mental health support, and long-term health interventions. Immediate medical attention by Primary Health care workers includes treatment for physical injuries, screening for STIs, and providing prophylactic treatments where necessary. Emergency contraception and vaccinations for hepatitis B and HPV should also be offered to survivors who access health care points to prevent further health complications. (CDC, 2021). Also, therapy options, including individual and group counseling, can help survivors process their trauma and develop coping strategies. Programs that specifically address PTSD and anxiety disorders can be particularly beneficial. Establishing community-based support systems can provide survivors with resources and a safe space to heal. This includes victim advocacy programs, legal assistance, and support groups that foster a sense of community and understanding. (Cleveland Clinic, n.d.) Educating survivors about their health risks and the importance of regular medical check-ups at health points can help mitigate long-term health issues. This includes information on recognizing symptoms of STIs and the importance of mental health care. Implementing public health campaigns aimed at preventing sexual violence and educating the public about its consequences can help reduce the incidence of sexual violence and its associated health effects. Primary prevention initiative efforts targeting youth and at-risk populations are particularly important. (Kathleen C Basile, 2020).

2.7 SUMMERY

In summery the health implications of sexual violence are extensive and multifaceted, affecting both physical and mental well-being. Survivors face increased risks for chronic diseases, STIs, and mental health disorders, necessitating comprehensive healthcare and support services tailored to their unique needs. This can be through multi-faceted approach that includes healthcare support, legal reform, and community education. Understanding these associations is crucial for developing effective prevention and intervention strategies.

3 METHODOLOGY

3.1 Introduction

In investigating the complex and sensitive topic of health effects associated with sexual violence, this chapter outlines the systematic approach employed to gather and analyze data. Recognizing the multifaceted nature of this issue, the methodology integrates both qualitative and quantitative research methods to provide a comprehensive understanding of the health implications faced by survivors. The first section details the selection of study participants, emphasizing ethical considerations and the importance of informed consent, given the sensitive nature of the subject matter. Additionally, the chapter describes the data collection techniques utilized, including interviews, and medical record analysis, to ensure a robust dataset that reflects the experiences of affected individuals. Subsequent sections outline the analytical methods applied to interpret the data, highlighting the use of statistical tools and thematic analysis to identify patterns and correlations between rape cases and associated diseases. This chapter also addresses the limitations of the study, acknowledging potential biases and the challenges of accessing accurate health data in such a stigmatized context. By employing a rigorous and ethical methodological framework, I contributed valuable insights into the public health implications of sexual violence, ultimately informing intervention strategies and support services for survivors.

3.2 Study Design

This study utilized a cross-sectional descriptive design, which allows for the collection and analysis of data at a single point in time. This approach is particularly effective in identifying the prevalence of diseases associated with sexual violence among women in Buhera district, over the specified period of 2023 and 2024. By employing both quantitative and qualitative methods, the study provided a comprehensive view of the health outcomes experienced by survivors. This mixed-methods approach enabled the identification of patterns and relationships between the incidence of sexual violence and the associated health consequences, including physical and mental health issues. Ultimately, the study aimed to contribute valuable insights into the public health implications of sexual violence, guide healthcare provision, and inform policy decisions aimed at improving support for survivors in the region.

3.3 Study Settings

The research was conducted at Victoria Chitepo Provincial Hospital (VCPH) in Manicaland Province, Zimbabwe. Key settings included public hospital, (VCPH) and non-governmental organizations (NGOs) that work in hand with VCPH in the Family Health Care (FCH) department at VCPH in providing psychological support and counseling services for survivors of sexual violence. This location was chosen for it is the largest health center in Manicaland province hence a referral for all small clinics in Buhera District, therefore adequate sample number is achieved. Victoria Chitepo provincial Hospital setting ensure a diverse representation of health care experiences and outcomes. Public hospitals are critical as they often serve as primary care providers for survivors. This research capture a holistic view of the health issues faced by women who have experienced sexual violence, considering the different types of care and support available in the province.

3.4 Study Population

The study population consisted of women aged 9 to 49 years who have reported experiencing sexual violence between 2019 and 2024. This age range is significant, as it encompasses a critical period in women's health where both physical and mental health issues can manifest following trauma. The participants were recruited from healthcare facility (VCPH) and community outreach program at Buhera office, that cater to survivors of sexual violence. Women who have sought medical attention, counseling, or legal support were prioritized to ensure that the study captures individuals who are actively engaging with health services. Focusing on this demographic, the study highlighted the challenges faced by women in Buhera and inform targeted interventions that can improve their health and well-being.

3.5 Inclusion and Exclusion Criteria

Inclusion criteria for this study focused on women aged 9 to 49 years who have experienced sexual violence and reported incidence within the 72-hour timeframe in the years, 2023 and 2024. Participants must have provided informed consent to health facility in order to participate in the study. This age range is chosen to capture the most vulnerable demographic regarding sexual violence and its health implications. Additionally, women who have sought medical assistance, counseling, or support services were included to ensure the study reflects those who are aware of their health needs and have engaged with available resources.

Exclusion criteria encompassed women outside the specified age range, those who have not reported the incident to any healthcare provider or law enforcement and those who reported after 72 hours of incidence. Women unable to provide informed consent due to different reasons such as failure to access the health sector, cognitive impairment or severe psychological distress at the time of the study were also excluded. These

criteria ensure that the study focuses on a relevant and accessible population while safeguarding the ethical integrity of the research process.

3.6 Sample size and Sampling procedure

The sample size was determined based on a power analysis to ensure sufficient statistical power to detect significant associations. The sample size allowed for the detection of significant associations between experience of sexual violence and health outcomes while also accommodating potential dropouts or incomplete responses. To calculate the sample size for a study on the health impacts of sexual violence on women in Buhera District, I used the following formula for estimating sample size in a cross-sectional study:

$$n = \frac{z^2 p(1-p)}{e^2}$$

Equation 1: Desired Sample Size

Where:

- n = required sample size
- Z = Z-value (standard score) corresponding to the desired confidence level (e.g., 1.96 for 95% confidence)
- p = estimated proportion of the population that exhibits the characteristic of prevalence of health impacts from sexual violence
- E = margin of error (e.g., 0.05 for ±5%)

The sampling procedure employed stratified random sampling to ensure representation across Buhera district, including age, type of healthcare facility, and geographic location within Manicaland Province. First, the population were stratified based on these characteristics. Then, participants randomly selected from each stratum to maintain diversity in the sample. Recruitment took place in FCH department at Victoria Chitepo Provincial Hospital and Buhera office for random sampling of interviews. This method ensured the study captures a wide range of experiences and health issues, providing a comprehensive understanding of the diseases associated with sexual violence among women in the province.

3.7 Data Collection

Data collection for this study involved multiple methods to ensure comprehensive and reliable information is gathered. Quantitative data was gathered through structured questionnaires, capturing demographic information and specific health issues. Qualitative data collected through semi-structured interviews, allowing participants to share their experiences and perspectives in depth. A structured questionnaire was administered to participants, capturing demographic details, health statuses, and specific diseases experienced following the sexual violence incident. The questionnaires included both closed-ended and open-ended questions to allow for detailed responses. In addition to the surveys, semi-structured interviews were conducted with a subset of participants to explore their personal experiences and the

psychosocial impact of the sexual violence incident on their health. This qualitative approach provided deeper insights into the challenges faced by survivors. Furthermore, medical records were reviewed (with consent) to corroborate self-reported health issues and diagnoses, ensuring accuracy in the data. Data collection took place at Victoria Chitepo Provincial Hospital and Buhera office in Manicaland Province, facilitating access to a diverse participant pool. All data was collected in a manner that prioritizes confidentiality and participant comfort, ensuring a respectful and ethical research environment.

3.8 Data Analysis

Data analysis involved both quantitative and qualitative methods understanding the health issues associated with sexual violence among women in Manicaland Province. Quantitative data from the structured questionnaires were analyzed using statistical software to compute descriptive statistics, such as frequencies, and percentages, which summarized demographic information and the prevalence of specific health conditions. Inferential statistics, including chi-square tests and logistic regression, were utilized to explore associations between demographic variables and health outcomes, enabling the identification of significant patterns. On the qualitative side, thematic analysis was conducted on the transcripts from semi-structured interviews. This process involved coding the data to identify recurring themes and insights related to the health impacts of sexual violence. The integration of quantitative and qualitative findings provided a richer interpretation of the data, allowing for a nuanced understanding of the relationship between sexual violence and health outcomes. The results ultimately inform public health strategies and interventions aimed at addressing the needs of survivors.

3.9 Ethical Considerations

Ethical considerations are paramount in researching sensitive topics such as sexual violence. This study prioritized the protection of participants' rights and well-being throughout the research process. Informed consent was obtained from all participants after they understood the study's purpose, procedures, risks, and benefits before agreeing to participate. Participants were assured of their right to withdraw at any time without any repercussions. Confidentiality was strictly maintained, with all data anonymized and securely stored to prevent unauthorized access. Additionally, the study provided information about available support services for survivors, such as counseling and legal aid, ensuring participants had access to necessary resources. Ethical approval was sought from an Institutional Review Board (IRB) and ethics committee, AUREC to ensure compliance with ethical standards and guidelines. The study adhered to ethical guidelines involving human subjects. The study upholds the dignity and rights of all participants while contributing valuable insights to the field.

3.10 Summary

The study adopted a cross-sectional descriptive design, utilizing a mixed-methods approach to gather comprehensive data on the health outcomes of female survivors of sexual violence. The study focused on women aged 9 to 49 who have reported sexual violence during the specified timeframe of 72 hours of incident. Data collection involved structured questionnaires administered to participants in healthcare settings. The questionnaires captured demographic information, health statuses, and specific diseases experienced post-incident. Additionally, semi-structured interviews were conducted with a subset of participants to gain deeper insights into their personal experiences and the psychosocial impacts of sexual violence. Medical records were reviewed, with informed consent, to validate self-reported health issues. Data analysis employed statistical software to analyze quantitative data, calculating descriptive and inferential statistics to identify health trends and associations. Qualitative data from interviews was analyzed using thematic analysis to extract recurring themes related to health impacts and survivor experiences. Ethical considerations were a paramount, with a focus on obtaining informed consent, ensuring confidentiality, and providing support resources for participants. Ethical approval was sought from AUREC ensuring the study adheres to ethical standards and protects participants' rights.

4 DATA ANALYSIS AND PRESENTATION

4.1 Introduction

This chapter focuses on analyzing the raw data that was collected and presents the research findings of the study on the health impacts of sexual violence on women, in Buhera district in year 2023 and 2024. The data is illustrated in the form of tables, pie charts and graphs as well as a brief explanation of the presented data to summarize and clarify each figure or table or graph on what it portrays. In addition, the numerical values were presented, where applicable as absolute values and as percentages.

4.2 Demographic characteristics of Sexual violence survivors

A total of 281 questionnaires were distributed to women who reported sexual violence during the specified timeframe of 72 hours of incidence in the year 2023 to 2024. The response rate was 78%, with 220 completed questionnaires returned for analysis. The participants' ages ranged from 9 to 49 years, with the majority 45% falling within the 20-29 age group. Regarding marital status, 65% of respondents were single, while 22% were married, 8% were divorced, and 5% were widowed. The educational background of participants varied, with 30% having completed secondary education, 15% having attained tertiary education, and 55% having only completed primary education or none at all. In terms of employment, 40% of participants reported being

unemployed, while 35% were employed in informal sectors, and 25% held formal employment.

4.3 The bacterial diseases and physical health consequences of sexual violence on women in Buhera district

4.3.1 Bacterial diseases experienced by women who have been raped

At Victoria Chitepo Provincial Hospital, microbiology tests which were performed using the high vaginal swab specimens and the most frequent bacteria isolated with was Non-Lactose fermenters species in 88 patients. The

Non-Lactose fermenters species caused bacterial vaginosis in sexual violence survivors. *Proteus mirabilis*, and *Escherichia coli* were isolated in 66 patients which caused the Urinary Tract Infections (UTI) in sexual violence survivors. Also, from the tests, *Candida albicans* was isolated in 29 patients, which caused candidiasis in sexually violated women. Lastly, group B Streptococcus, *Enterococcus* species were isolated in 37 in women who experienced sexual violence. The pie chart below shows the bacterial diseases experienced by women who were sexually violence.

Table 1: Bacterial diseases in women who experienced sexual violence.

Bacterial Disease	Bacterial Vaginosis	UTI	Candidiasis	Vaginitis
Number (n=220)	88	66	29	37
Percentage (%)	40	30	13	17

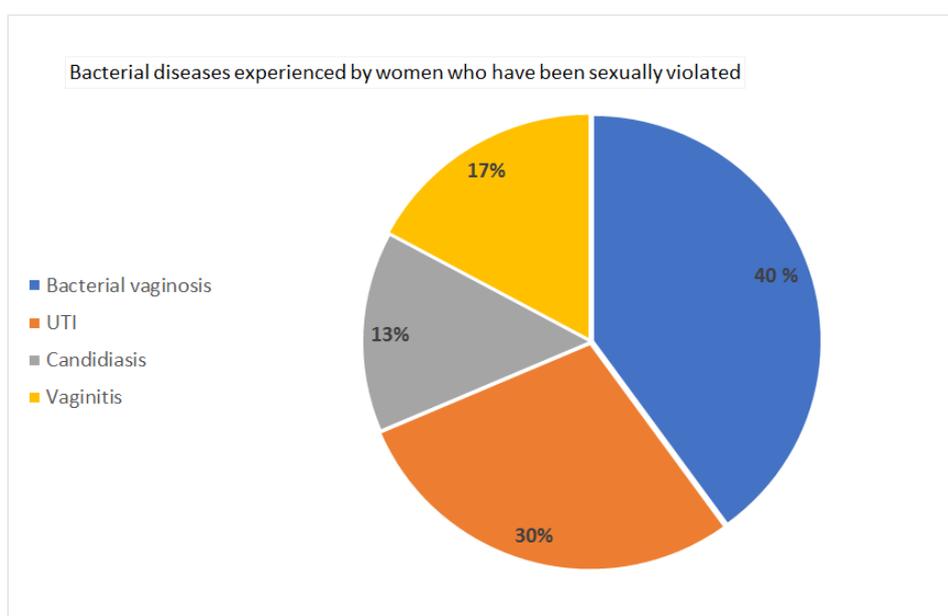


Figure 1: Bacterial diseases in women who were sexually violated.

4.3.2 Physical health consequences of sexual violence on women in Buhera district.

The table below (table 2) shows the physical health consequences experienced by women who have been sexually violated in Buhera district. The most prevalent consequence was Sexually transmitted infections (STI), in which a total number of 120 women were infected of all the 220. It was seen that 15 women reported bleeding and

hemorrhage. Bruises and internal injuries were reported by 35 women. HIV was reported by 20 women of the 220. Bleeding and hemorrhage, and headaches, each affected 15 women of the 220 cases. Unwanted pregnancy is reported by only 10 women. Lastly, Pelvic Inflammatory Disease (PID) is the least reported consequence by 5 women (2.3%) of the sample.

Table 2: Health consequences of sexual violence on women in Buhera district.

Physical health consequences	Frequency	Percentage
STI	120	54.5%
Bleeding and haemorrhage	15	6.8%
Bruises and internal injuries	35	15.9%
Headache	15	6.8%
HIV	20	9.1%
Unwanted pregnancy	10	4.5%
Pelvic inflammatory diseases	5	2.3%

4.4 The psychological effects, including Depression, Anxiety and Post-traumatic stress disorder (PTSD), among survivors of sexual violence in Buhera District

The pie chart below illustrates the psychological effects experienced by survivors of sexual violence in Buhera District. Post-traumatic stress disorder (PTSD) and

depression being the most frequently reported issues among 220 survivors who reported. Depression is the most prevalent psychological effect, accounting for 42% of the respondents. PTSD follows closely, representing 41% of the cases. Anxiety is reported by 17% of the survivors.

The Psychological effects experienced by survivors of sexual violence

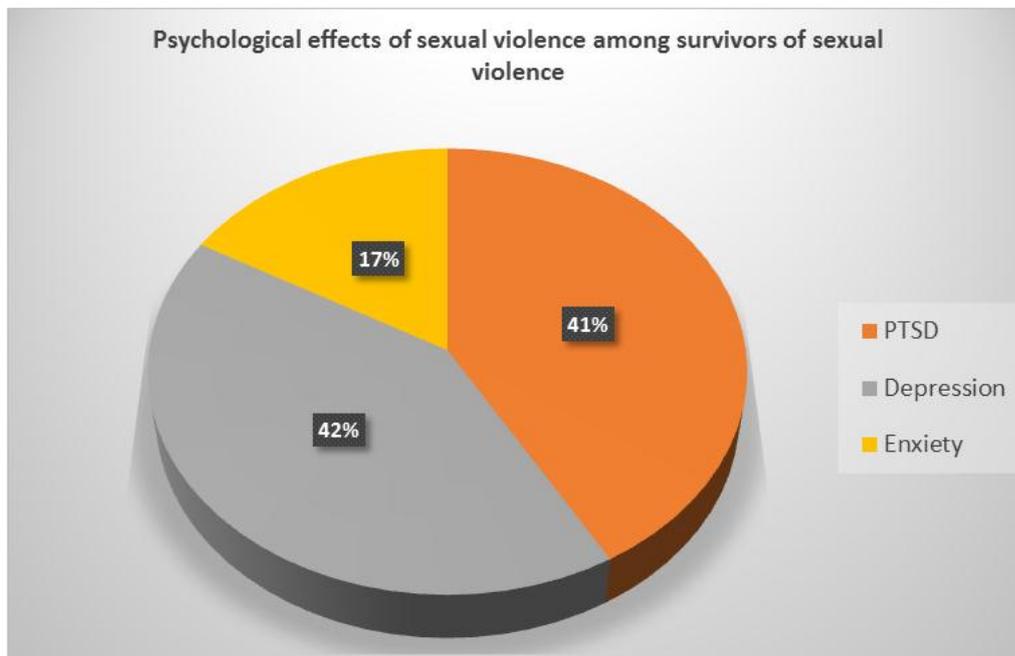


Figure 2: The psychological effects experienced by sexual violence survivors.

4.5 To identify the social and economic impacts experienced by women who have been sexually violated

The table below (table 3) shows the social and economic impacts experienced by sexually violated women in Buhera district. Emotional struggles and educational disruptions being particularly prominent with percentages

25% and 20.5 % respectively. Increased health costs and cultural and societal traumas have the same frequency, a percentage of 15.9 both. Women who reported loss of productivity and income were (45), 13,6% of the sample. Difficulty in maintaining intimacy relationships was reported by the fewest women who were sexually violated, to make up the lowest percentage 9.1% of the sample.

Table 3: Social and economic impacts experienced by sexually violated women in Buhera district.

Effect	Frequency	Percentage(%)
Increased health care cost	35	15.9
Loss of productivity and income	30	13.6
Negative impact on education	45	20.5
Feeling of shame, guilty and low self-blame	55	25.0
Cultural and societal trauma	35	15.9
Difficult in maintaining intimacy relationships	20	9.1

4.6 To evaluate the accessibility and utilization of healthcare and support services by survivors

The table below (table 4) shows the accessibility and utilization of healthcare and support services among survivors of sexual violence. Medical Care was accessible to 150 survivors, with 100 utilizing the service. Counseling Services were accessible to 120 survivors, with 70 utilizing them. Legal Assistance is accessible to 80 survivors, but only 40 utilize it, resulting in a utilization rate of 50%. Support Groups show accessibility to 60 survivors, with 30

utilizing the service, also resulting in a 50% utilization rate. Emergency Services were accessible to 50 survivors, with 22 utilizing them, resulting in a utilization rate of 44%. Community Outreach Programs were accessible to 100 survivors, with 50 utilizing them, which also results in a 50% utilization rate.

Table 4: Accessibility and utilization of healthcare and support services by survivors of sexual violence.

Service Type	Accessibility (Yes)	Utilization (Yes)	Percentage of Utilization(%)
Medical care	150	100	66.7
Counseling services	120	70	58.3
Legal assistance	80	40	50.0
Support groups	60	30	50.0
Emergency services	50	22	44.0
Community outreach programs	100	50	50.0

5 DISCUSSION, CONCLUSION AND RECOMMENDATIONS

5.1 Introduction

This chapter serves to summarize all the research findings and identify any gaps in the acquired information as well as take note of discovery of any unexpected information. The discussion will be done in relation to the research objectives, research questions and literature review for this research. A critical analysis and discussion of findings, comparisons and contrasts in the findings of this study and past similar studies will be highlighted. The limitations, implications to public health, recommendations, publication of results and the action that can be taken in light of the study will also be discussed.

5.2 Discussion

5.2.1 The bacterial diseases and physical health consequences of sexual violence

The study showed that the highest prevalent bacterial diseases experienced by women who had been sexually violated was bacterial vaginosis (BV), following urinary tract infections (UTI). It aligns with existing literature of Xodo et al. (2024) who suggested a significant association between sexual trauma and the disruption of normal vaginal flora, leading to BV. He indicated that sexual violence can alter the vaginal microbiome, increasing susceptibility to infections like BV due to the replacement of Lactobacillus species with pathogenic bacteria (Xodo S, 2024). Candidiasis and vaginitis were reported by few women, presenting lower prevalence rates compared to BV and UTIs. While these conditions are significant, they are less frequently discussed in the context of sexual violence. These lower prevalence rates may oppose findings Agana et al.(2019) who report higher rates of candidiasis among sexually assaulted women (Agana, 2019). This discrepancy could be attributed to variations in sample size, demographic factors, or differences in the definitions and diagnostic criteria used for these infections in different studies.

The study findings of physical health consequences of sexual violence experienced by women who were sexually violated included sexually transmitted infections (STIs) which was the most prevalent. This aligns with existing literature of Campbell et al. (2009) that indicates a strong association between sexual violence and the risk of STIs. 15.9% of women reported bruises and internal injuries, while 6.8% experienced bleeding and hemorrhage. These findings are consistent with previous research done by Tjaden and Thoennes (2000) that highlighted the acute

physical injuries that are common among survivors of sexual violence (Tjaden, 2000). Other physical health consequences reported had low prevalence, the unwanted pregnancies, pelvic inflammatory diseases, and headaches. These findings contrasts with those from Jewkes et al. (2002) which indicated a higher incidence of these issues among survivors of sexual violence. For instance, a study reported that unwanted pregnancies are a significant concern for survivors (Jewkes, 2002). This discrepancy could be attributed to differences in access to reproductive health services, contraceptive use, and the socio-cultural context of the Buhera district, which may affect women's reproductive health outcomes. HIV was reported by the fewest among surveyed women showing difference from what Decker et al. (2013) studies suggested. They indicated risk of HIV transmission being significantly heightened in cases of sexual violence, they found that women who experience sexual violence are at a higher risk for HIV infection (Decker, 2013). The discrepancy in the Buhera district may arise from various factors, including the specific population studied, the timing of HIV testing, or the availability of preventive measures such as post-exposure prophylaxis (PEP). Also HIV has a window period of 3 months from time of incidence, and some survivors may not return to the hospital for test in which some will be positive HIV after the window period. Additionally, cultural and social factors may influence the reporting and diagnosis of HIV among survivors, potentially leading to underreporting in this context.

5.2.2 The psychological effects, including depression, anxiety, and PTSD, among survivors of sexual violence

The study of psychological effects experienced by survivors of sexual violence, indicate that depression and post-traumatic stress disorder (PTSD) was experienced by 82% of the women surveyed, with anxiety being the least. These results for depression and PTSD emphasize the profound psychological impact of sexual violence, which is consistent with existing literature of that highlights the prevalence of these mental health issues among survivors. The high rates of depression and PTSD observed in this study align with previous research by Campbell et al. (2009) who indicated that sexual assault is a strong predictor of both depression and PTSD, with many survivors experiencing long-term psychological distress (Campbell, 2009). However, the reported prevalence of anxiety is lower than what some studies have suggested. For example, a study by Koss et al. (1994) indicated that anxiety disorders are prevalent among survivors of sexual

violence, often exceeding 30% (Koss, 1994). This discrepancy may be attributed to differences in the methodologies employed or the specific definitions of anxiety used in different research contexts. Additionally, cultural factors and stigma surrounding mental health may influence the reporting of anxiety symptoms among survivors in the current study.

5.2.3 The social and economic impacts experienced by women who have been sexually violated

In this study, the findings indicated that quota of women reported feelings of shame, guilt, and low self-blame, which are common psychological responses to sexual violence. Existing literature of Campbell (2006) emphasizes the internalized stigma and self-blame often being experienced by survivors, in which can hinder their recovery and reintegration into society (Campbell, 2006). The negative impact on education, reported by 45 of the 220 respondents, highlights another critical area affected by sexual violence. Survivors may struggle to concentrate on their studies or may drop out altogether due to unwanted pregnancy and the trauma experienced, which is consistent with findings from other studies that indicate a correlation between sexual violence and educational disruption (Moreno, 2002) This educational setback can have long-term implications for women's economic opportunities and overall empowerment. Additionally, the data reveal that 35 women reported increased healthcare costs as a result of sexual violence. This finding is supported by research indicating that survivors often face significant medical expenses related to the treatment of injuries, STIs, and mental health issues (Morrison, 2006) The financial burden can exacerbate existing economic vulnerabilities, particularly in low-income settings like Buhera district. The loss of productivity and income reported by survivors, further emphasize the economic impact of sexual violence. Survivors may be unable to work due to physical injuries or psychological distress, leading to decreased household income and increased economic instability. This finding is consistent with literature that highlights the economic repercussions of violence against women, which can perpetuate cycles of poverty (Heise, 1998). Cultural and societal trauma, were reported by 35 respondents, reflecting the broader societal implications of sexual violence. Communities may experience collective trauma, which can affect social cohesion and trust. This aligns with findings from other studies that suggest sexual violence can have ripple effects throughout communities, impacting not only survivors but also their families and social networks (Bourgois, 2003) Also difficulties in maintaining intimate relationships, reported by survivors, highlight the interpersonal challenges faced by survivors. The trauma of sexual violence can lead to trust issues and difficulties in forming healthy relationships. This finding is supported by research indicating that survivors often struggle with intimacy and relationship dynamics post-assault (Wisniewski, 1994)

5.2.4 The accessibility and utilization of healthcare and support services by survivors

The data attained in this study reveals varying levels of accessibility and utilization across different service types, highlighting both strengths and gaps in the support system available to survivors. The findings in this study indicate that medical care is highly accessible resulting in reduced negative impact on health of sexual violence survivors. This aligns with previous literature that emphasizes the importance of immediate medical care for survivors, as timely intervention can significantly impact their physical and psychological recovery (Campbell R, 2009) However, the utilization rate suggests that while access is high, there may be barriers preventing some survivors from seeking medical care, such as stigma or fear of re-traumatization. Counseling services were utilized by the least number of survivors. This is consistent with findings from other studies that highlight the critical role of mental health support in the recovery process for survivors of sexual violence (Ullman, 2010). However, the relatively lower utilization rate of counselling compared to medical care may indicate that survivors are less likely to seek psychological support, possibly due to societal stigma surrounding mental health issues or a lack of awareness about available services.

The data in this study also show that legal assistance is accessible to 80 respondents, but only 40 utilized it. This finding is concerning, as legal support is crucial for survivors seeking justice and protection. Previous research has indicated that survivors often face significant barriers in accessing legal services, including fear of retaliation, lack of trust in the legal system, and inadequate legal resources (Hossain, 2024). The lower utilization rate in this context may reflect these challenges.

Support groups and emergency services both show a utilization rate despite their accessibility. The lower engagement with these services may suggest that survivors are not fully aware of the benefits of peer support or may feel uncomfortable sharing their experiences in group settings. It aligns with findings from other studies that indicate a reluctance among survivors to engage in communal support due to feelings of isolation or shame (Bourgois, 2003) Community outreach programs were accessible to 100 respondents, with only half utilizing them indicating a potential gap in outreach effectiveness, as survivors may not be fully informed about the services available to them. Previous literature suggests that effective community outreach is essential for increasing awareness and utilization of support services among survivors (Heise, 1998).

5.3 Limitations of the study

Limitations of this study includes selection bias, as those who opted to participate may differ in significant ways from those who did not, potentially limiting the generalizability of the results. Secondly, the reliance on self-reported data can introduce response bias. Survivors

may underreport certain experiences or feelings due to stigma, shame, or fear of judgment, which could lead to an underestimation of the prevalence of psychological and social impacts. Additionally, the cross-sectional nature of the study means that causal relationships cannot be established, limiting the ability to draw definitive conclusions about the effects of sexual violence. Also the study's focus on specific types of healthcare and support services may overlook other critical resources available to survivors. A more comprehensive assessment of all available services, including informal support networks, could provide a fuller picture of the resources utilized by survivors.

5.4 Study Conclusion

In conclusion, this study highlights the significant physical, psychological, social, and economic impacts of sexual violence on women in the Buhera district. The findings emphasize the need for improved healthcare accessibility and utilization, particularly regarding mental health services and legal assistance. While medical care is largely accessible and utilized, the lower engagement rates with counseling and support services suggest barriers that must be addressed to facilitate recovery and empowerment for survivors. The data also reveal the multifaceted nature of the consequences of sexual violence, affecting not only individual survivors but also their families and communities. As such, interventions must be holistic, addressing not only immediate health needs but also the broader social and economic challenges faced by survivors.

5.5 Recommendations

Based on the findings of this study, it is recommended that stakeholders, including healthcare providers, policymakers, and community organizations, collaborate to enhance the accessibility and utilization of support services for survivors of sexual violence in the Buhera district. This can be achieved by increasing awareness campaigns that educate the community about available resources, reducing stigma associated with seeking help, and promoting mental health services. Additionally, training programs for healthcare professionals should emphasize trauma-informed care to ensure sensitive and effective treatment for survivors. Legal assistance services should be strengthened and made more accessible to empower survivors in seeking justice. Also, integrating support groups and community outreach programs into existing healthcare frameworks can foster a more supportive environment for recovery. Lastly, ongoing research should be conducted to monitor the effectiveness of these interventions and adapt them to better meet the needs of survivors.

5.6 Dissemination of Results

A copy research finding will be published and another will be submitted to Africa University, College of Health Science Agriculture and Natural Resources under the Department of Biomedical and Laboratory Science.

5.7 Suggestions for Further Research

Future research should aim to explore the long-term impacts of sexual violence on survivors' physical and mental health, as well as their social and economic well-being. Longitudinal studies could provide valuable insights into the progression of symptoms and the effectiveness of various support services over time. Also, qualitative research could deepen understanding of the personal experiences of survivors, shedding light on the specific barriers they face in accessing healthcare and support services. This could inform the development of targeted interventions that are culturally sensitive and tailored to the needs of survivors in the Buhera district. Finally, research that examines the role of community support networks and informal resources in aiding recovery could enhance the existing knowledge base and contribute to more comprehensive support strategies for survivors of sexual violence.

Declaration

I Goodness Nyekete, student number 210617 do hereby declare that this dissertation is my original work except where sources have been cited and acknowledged. The work has never been submitted by anyone, nor will it ever be submitted to another university for the award of Bachelor of Science degree.

Acronyms and Abbreviations

BV	Bacterial Vaginosis
HIV-1	Human Immunodeficiency Virus type 1
HIV-2	Human Immunodeficiency Virus type 2
AUREC	Africa University Research Ethics Committee
PTSD	Post-Traumatic Stress Disorder
CT	<i>Chlamydia trichomatis</i>
NG	<i>Neisseria gonorrhoeae</i>
TV	<i>Trichomonas vaginalis</i>
WHO	World Health Organization

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