



Vulnerability and Gonorrhoea: A Qualitative Study of Black Women in South Africa

Takiyah White Ndwanyana^{1*}, Vibha Kumar² and Raymond Panas³

¹Walden University, 27 Tolip Street, Johannesburg 2092, South Africa.

²Faculty of Public Health, Walden University, Minneapolis, MN, 55401, USA.

³Faculty of School of Health Sciences, Walden University, Minneapolis, MN, 55401, USA.

Authors' contributions

This work was carried out as part of a doctoral dissertation. Author TWN designed and implemented the study in South Africa. Authors VK and RP edited the final draft of the dissertation.

Article Information

DOI: 10.9734/ISRR/2016/25517

Editor(s):

(1) Barbara Swanson, Adult Health and Gerontological Nursing, Rush University College of Nursing, USA.

(2) Constantinos Petrovas, Immunology Laboratory, Vaccine Research Center, NIAID/NIH, Bethesda, USA.

(3) Jose Eduardo Serrao, Department of General Biology, Federal University of Viçosa, Brazil.

Reviewers:

(1) Anonymous, Midwestern University, USA.

(2) N. De Gaspari, Instituto Adolfo Lutz, Secretaria de Estado da Saúde de São Paulo, Brazil.

(3) Moses Prabu, Middle Tennessee University, USA.

Complete Peer review History: <http://www.sciencedomain.org/review-history/15902>

Original Research Article

Received 7th March 2016
Accepted 9th August 2016
Published 23rd August 2016

ABSTRACT

Background: Gonorrhoea is becoming a health concern globally due to its susceptibility to resistance of antibiotics, and this is a concern particularly for Black women in South Africa. Vulnerability among Black women leads to unsafe sexual practices, and this qualitative study explores the relationship between vulnerability and risk of gonorrhoea.

Methods: Participants were interviewed using an in-depth questionnaire at Lovelife, a local non-governmental organization in the Langa township of Cape Town, South Africa from October 2014-December 2014. Interviews were conducted using the information-motivation-behavioral skills conceptual framework and analyzed using thematic coding and triangulated through member-checking.

Results: Vulnerability affected the women's motivation to change at-risk behavior because the control was out of her hands. Of the 12 respondents, 92% were unemployed and dependent on her partner and his family (in some circumstances), which lowered their sexual power and ability to make decisions about sexual behavior that led them to at least one gonorrhoea infection.

*Corresponding author: Email: Takiyah.White@gmail.com;

Conclusion: The findings from this study have social influence because regardless of age, socioeconomic status (SES) or educational level, women feel a need to discuss behavior in a medium that is not judgmental or instructive, but one that fosters openness and support.

Keywords: Gonorrhoea; vulnerability; black women; STDs; STIs; qualitative methodology; South Africa; In-depth questionnaire.

1. INTRODUCTION

Gonorrhoea incidence rates in South Africa (SA) are among the highest globally [1]. Coinfection with HIV is currently a concern with the distribution of gonorrhoea among teenagers and young adults who are at risk of infection. Men are normally symptomatic for the disease, resulting in more men reporting having the STD, but the highest burden and rates are found among adolescent girls [2]. Young women in South Africa are at risk of being infected with HIV with the prevalence in the age group 15 to 24 being 16.9% in women versus 4.4% in men in 2005 [3]. Gonorrhoea is the second most common notifiable disease in the United States with 333,004 cases reported in 2013 [4]. It was first identified in 1976, but had an epidemiological profile of impact in the United States after 1980 [5]. The rates of gonorrhoea continued to be highest among African Americans in 2013 with 426.6 cases per 100,000 occurring 12.4 times greater than the rate among whites with 34.5 cases per 100,000 [4]. African American women aged 20 to 24 disproportionately had the highest gonorrhoea rate of any ethnicity group of 1,949.1 per 100,000, followed by 15 to 19-year-old African American women of 1,768.5 and 20 to 24-year-old black men of 1,734.5 per 100,000 [4]. The WHO estimates that the total number of new cases of STIs in the African Region was 93 million and among that number, there were 21 million cases of *N. gonorrhoeae* [6].

According to a study based in Ghana, gonorrhoea is one of the most prevalent STIs worldwide, with a major percentage found in developing countries [7]. There was variation in STI prevalence among African countries and targeted populations in studies of adults presenting with STI symptoms with a gonorrhoea diagnosis of 0.4% in Congo, 5.7% in Benin, 8.4% in Tanzania, 17.1% in Malawi, and 1.4% in Zambia [7]. Because there are a few countries outside of Western Europe and North America that have accurate reporting systems for STIs, inclusive of South Africa, the incidence of infections expressed as the number of new cases per

100,000 per year is unknown [8]. A lack of constant exposure to information concerning HIV/STIs makes more people susceptible to the virus which is of concern and formal education at the tertiary level is important to eliminate the epidemic of disease [9].

Gonorrhoea is becoming a health concern globally due to its susceptibility to antibiotic resistance; this is a concern particularly for Black women in South Africa. In the recent years, antibiotic resistance has been found in many countries, such as Norway, England, Austria, France, Canada, Vietnam, England, Wales, and Sweden with 31% having decreased susceptibility to treatment [10]. Vulnerability refers to the individual factors that increase the risk of HIV/STI infection [10]. The vulnerability paradigm explains that women's susceptibility to HIV is because of biological differences versus men, reduced sexual autonomy, and men's sexual power and privilege [11].

UNAIDS considers that vulnerability includes factors outside the control of the individual, which reduces her ability and within communities to avoid the risk of HIV/STIs [12]. Poverty is a characteristic that increases the vulnerability of women with unsafe sexual practices because of lack of knowledge, lack of access to protection, and the inability to negotiate condom use [13]. Some of the individual factors include unemployment, illiteracy, and gender inequality. These factors are characterized as social, but in the context of this psychosocial study determinant factor, they will be classified as individual susceptibilities. The concept of vulnerability has been studied in various populations around the world, and although Black women in South Africa are affected the same way in regards to disease burden, this study used qualitative methodology to get a deeper understanding of how vulnerability affected the risk of gonorrhoea.

The objective of the study was "How does a woman's sense of vulnerability play a part in risk of gonorrhoea among Black South African

women?" Vulnerable persons in many countries can include adolescent girls and women. If any factors come into play, such as illiterate women with limited skills, few job opportunities, and limited access to health information and services, are more likely than other women to engage in unprotected sex for money increasing their vulnerability and risk of infection [10]. Women are also considered vulnerable to rape and violence in their relationships and tend to have limited control over their sexual relationships [14]. Promiscuity is also a risk factor found in literature and women are put at risk because of whom they have sex with rather than how many people they have sex with [14]. Interventions that address vulnerability to create economic opportunities for those at most risk can decrease vulnerability and risk of infection among the most affected groups.

2. METHODOLOGY

The use of qualitative methods for this study was chosen after reviewing the literature with an emphasis on Black women regardless of geographic location because it allowed the participant to feel more at ease with the process of the research being in their home area. Particularly in South Africa, many research studies are ongoing that are mainly focused on maternal and child health and vaccine research. In particular, HIV studies are quantitative in nature, so this study design may be a refreshing change to allow for the participants to have a voice. The key concept used was the IMB theory that is used to define the constructs affecting risk-reduction behavior among Black women. Using the qualitative design methodology, the data collection methods used individual interviews to allow the women study participants to share their ideas on the psychosocial and behavioral manifestations that affect their sexual habits.

The IMB skills theory [15] used in this research was the framework to help construct the interview questions and frame the results. The theory defines the constructs in which women can share their ideas on the psychosocial and behavioral manifestations that affect their sexual habits to examine similarities with Black women. In order to do this, themes from open-ended questionnaires and focus groups that are characteristic of qualitative methodology would be the theoretically ideal structure for this study. Looking at specific elements in the research to either support or reject tested hypotheses or address the same from previous empirical

research, quantitative would be better suited for this research. From the literature search, there have been no other studies conducted from an epidemiological standpoint to find out if psychosocial and behavioral factors contribute to risk of gonorrhoea.

2.1 Study Setting and Participants

The research was undertaken in a government-funded clinic in the Langa Township located in the metropolitan area of Cape Town, South Africa. Townships in South Africa are historically predominantly Black African with a majority Xhosa in traditional ethnicity and language. In Langa, Black Africans make up 99% of the population, unemployment is 40%, and females make up 50.44% of the population [16]. In Langa, 2.2% have no schooling, 4% have completed primary, 45% have some secondary education, and 33% have a Grade 12 education [16]. With females as the predominant gender in Cape Town, the probability of reaching study participants was greater. One of the main reasons for the choice to study in this particular area was because these populations have high incidences of HIV and STI among Black females.

Many of the residents use government-funded public health clinics because of easy accessibility, free services, and most residents do not have national health insurance. The clinic has trauma services, mental health services, a pharmacy, obstetrics, HIV/AIDS and STI unit, and psychiatric services, among others, making them full-service health facilities. The LoveLife organization is a non-profit group that caters to young adults and comprehensive sexual preventive services. LoveLife is very visible in the local area and works with the local schools to deliver education about how to practice safe sex and other sexual preventive methods to curb the high rate of HIV/STIs in the area.

To be eligible for the study, all participants had to be a Black female, aged 18 to 35 years old, read and speak at least intermediate English. All correspondence was translated in Xhosa to increase the chances of greater participation. Each participant would have had at minimum one sexual experience and at least one positive test for gonorrhoea in the past two years. The goal was to recruit as many participants who had received a positive test for gonorrhoea within the past two years with a goal of no less than 10 participants. Ten was the minimum target because, in a review of prevalence studies within this geographic area and population, it was not

difficult to recruit participants. Although this study had a small sample of 12 participants, this is normal in qualitative studies to allow the time for the researcher to establish trust with each participant and dig deeply into their thought processes and feelings. To recruit as many participants as possible to give a detailed understanding of the psychosocial effects of the women affected by gonorrhoea, I asked LoveLife to assist in passing out flyers for participant recruitment. Walden's IRB board recommended this way of recruitment as opposed to clinic nurses and doctors asking participants directly to avoid coercion into being in the study. This analysis solely focuses on vulnerability and was part of a larger study, thus the small number of participant responses and quotes from participants #8 and #9, respectively.

Ethical considerations were maintained throughout the study and IRB approval as part of the research protocol. The IRB approval number was 09-05-14-0132506. The participants' identity and research responses were kept confidential, and risks and benefits communicated to each participant before data collection.

LoveLife, as the community partner, allowed the use of their volunteers (GroundBreakers) for translation and assistance with distributing study participant recruitment flyers as well as their LoveLife facility in Langa to host the interviews in a confidential area (the boardroom). The Walden University Institutional Board (IRB) during the application process felt that the focus groups initially proposed would not be conducive to participants sharing sensitive and confidential information, so the accepted IRB application called for only one-on-one interviews. The IRB asked for translations to be a part of the data collection in case a person who wanted to be a part of the study but could not speak English fluently or was not confident in the language would not be excluded due to a language barrier. Lovelife provided translators for use in the study. There were approximately four participants who asked for a translator.. Before the interview began, I went over the Informed Consent form and received consent from each participant.

A number of studies have been conducted in the clinics, so the participating women are aware of research study settings. Compensation of R50 grocery store vouchers was provided for participants for volunteering their time to participate in the study. Data collection included individual one-on-one in-depth interviews.

2.2 Measures

The outcome variable *Vulnerability* was created using three sets of questions:

- a. Why would you refrain from sexual contact if you or your partner had gonorrhoea?
- b. How confident are you with using condoms and are you able to negotiate with your partner to use condoms if you are not in a monogamous relationship?
- c. How confident are you to refuse sexual intercourse with your partner if they choose not to use a condom?

Coding of the following themes were uncovered by the participant's responses: poverty, basic needs, sexual power, decision making, and violence in the relationship.

2.3 Data Analysis

Data analysis began with transcription of the focus groups and hand-coding of themes on a line by line basis found from the one-on-one interviews with study participants [17]. The interviews were transcribed and hand-coded on a line by line basis. Descriptive themes were deciphered from the variables outlined with the psychosocial variables previously discussed. There was no need to use a qualitative software package because the codes could be deciphered from hand-coding. Methodological triangulation to established credibility and dependability in the data collection and analysis stages, respectively, as participants were given a questionnaire before the interview to gather demographic information. Probing questions were asked for clarification if more analysis was needed from the participant responses. Member checking occurred at the completion of the interview through replaying the audiotape to determine if the responses were accurate and if they reflected the predicted outcomes.

3. RESULTS AND DISCUSSION

3.1 Demographics

Table 1 presents the demographic characteristics of the participants. Of the research participants, 92% of the women were unemployed, 58% were high school graduates (25% had less than a grade 12 education, and 17% were university students). All of the participants considered themselves single, but 67% were in a

relationship, and 33% were single, not in a relationship. The average age of the study participants was 21.7 years old.

The desire to change at-risk behavior to prevent STI transmission and prevention is dependent on the individual motivation to make said changes. The majority of women in the study were adamant that after having a positive gonorrhea diagnosis, they are fully confident and motivated to practice safer sex. Vulnerability affected the women's motivation to change at-risk behavior because the control was out of their hands. The overwhelming majority, 92% of women, were unemployed and dependent on their partner and his family (in some circumstances), which lowered their sexual power and ability to make decisions about sexual behavior. About half of the women continue to stay in abusive relationships with the partner who gave them the disease. For some of the women, the partner never received treatment due to lack of believing that he was infected which makes for the answering of particular questions in the interview related to this determinant difficult to decipher among those women. Women are at risk because of whom they have sex with (as found with the majority of women) rather than how many people they have sex with although in a couple of cases with the participants, affection and self-gratification was sought by casual encounters.

Table 1. Demographic characteristics of the study sample

Measure	Total sample (N=12)
Age (years, average)	21.7
Unemployed (yes)	92%
High School education completed	75%
Single (Not in a current relationship)	33%

Vulnerability focuses on the individual factors that increase the risk of HIV/STI infection that are out of the control of the individual. Several of these factors came out in the interviews including unemployment and gender inequality. The majority of women in the study stated that they do not work and rely on family and boyfriends for basic needs that at times results in violence in relationships with limited control in the relationship.

3.1.1 Participant #8

For most of them [women that stay in violent relationships], it's because they are dependent on the guy--financially and emotionally. For them, they come from a broken home, so they look at the boyfriend as a refuge because when you go home, there is no food, mom is drunk and dad is drunk; no one has their story on. You go to your boyfriend's house and then everyone welcomes you there with warm hands, you can sleep there, they buy you clothes, everything. Behind closed doors, he beats you up-blue eyes. The mom wouldn't be concerned and would ask about the blue eye, but once you smile, they want to shower you with gifts. So that you forget the abusive relationship so I think [they stay] because of broken families and depending on the person.

Having multiple partners was found to be a factor in the data collection in the form of women seeking out affection and self-gratification from someone other than their main boyfriend.

3.1.2 Participant #9

No, I didn't know [who gave her gonorrhea]. There was one time I did have a risky situation. So, it happened then, so I wasn't sure. I thought he [the boyfriend] would say it was from you, you came to me with this thing. But I had to speak to him about it to go to the clinic. When the time came to have sex, I couldn't so I had to be open why. But I didn't tell him about the risky decision I had on the side. [Tell me more about the risky decision you had on the side] It was a guy I was chatting with and then the feelings developed and went to another level but after we did that, I just saw that it was wrong. I was flattered with the words he was saying, and then I did that [had unprotected sex].

The research question asked: "How does a woman's sense of vulnerability play a part in risk of gonorrhea among Black South African women?" The answer is that vulnerability is an important psychosocial factor in predetermining among high risk groups because it lowers the ability to make safe choices in relationships or home dynamics that contribute to the risk of disease. A key finding in this study was that the motivation to change risky behaviors is affected by the women's sense of vulnerability to how much control she has in her relationship.

The research addressed social and structural barriers that increase vulnerability of STI infection—two of the key strategic objectives for the South African National AIDS Council's National Strategic Plan—is critical to decreasing sexual disease epidemics that affect the country, in particular, impoverished areas that have limited basic resources.

3.2 Implications for Practice and Policy

Recommendations for further research should include a wide vast of women in surrounding townships in Cape Town inclusive of Khayelitsha (one of the largest townships in Cape Town) and Nyanga, and also townships within the greater Johannesburg area. Because of the interest of the women to “tell their story” and to have a say about their life, concerns, and behaviors, this study could easily expand to not only South Africa but to all parts of the world. A comparison study of Black women in South Africa with Black women in populated areas in the United States could give salient information about the information, motivation, and behaviors of sexually vulnerable women in regards to relationships and relevant target focused support interventions could be established all over the world.

The effectiveness of the targeted interventions could have a significant impact on the disproportionate incidence and prevalence of HIV/STIs among Black women globally. The interventions have to allow the participants to speak freely about their vulnerabilities and influence of peer and family pressures on sexual behavior, and lack of economic and social support in their understanding of sexual behavior information and knowledge to make a difference in practices of preventive sexual behaviors. Individual interviews are ideal to gather information with someone experienced and understanding of impoverished communities to incite real and authentic conversations among the participant group in regards to personal conversations about sexual behavior.

The potential impact of this study for positive social change at the individual level is the confidence and sexual power that a vulnerable woman can develop. Women's understanding of the importance of maintaining confidence (information and motivation) in providing and using contraception whether in a monogamous or causal relationship is imperative in reducing the burden of disease among this population.

Families have to have a significant change in conversation and dynamic for a woman to feel secure enough to trust those around them to speak up and not hide concerns when they feel a sense of vulnerability to their sexual behaviors and relationships.

Having knowledge of the impact of education and economic factors on women of reproductive age can be resourceful in establishing job creation and awareness of the importance of education. Education would extend options and form a way out of impoverished households and abusive relationships that can lead to high risk and burden of disease. This can be addressed at the societal and policy levels, respectively. Most of the stakeholders and advocates of social change in regards to HIV/STIs affecting vulnerable populations found in townships and rural areas of South Africa link together with other human rights organizations (i.e. Treatment Action Campaign (TAC)), to spark movements of change, but are currently under-sourced and underfunded. If this continues to occur, health challenges in communities in most need will continue to be disenfranchised and underrepresented.

The recommendation for practice in a community such as Langa is that it is imperative first to get a sense of the dynamics of the community that is involved in the research. Dialogue will maintain consistency and also limit risks associated with studying a vulnerable population. Also, development of relationships by the researcher with the community partner assisting in the research from the executive level to the entry level is crucial in maintaining integrity and support throughout the data collection and data analysis stages of the research. At the end of the study, a presentation by the researcher to the stakeholders in the community—inclusive of the community partner and its' stakeholders allows those involved and even those not directly involved to understand that they were a significant partner in the outcomes of the research done in their community.

4. CONCLUSION

This study focused on the attitudes and behaviors of Black women in the township of Langa in regards to their understanding of the variables that impacted their diagnosis of the STI gonorrhoea. The literature stated that this population was most at risk for HIV/STIs, and this

research has shown that more work needs to be done to consider the individual components of sexual behavior among this population, partnership dynamics, and social/environmental influence. Preventive methods have been implemented by NGOs like LoveLife, inclusive of their local establishments and clinics, more continuous work is needed to keep the at-risk group informed about their risk. The findings from this study can be of great social influence globally because regardless of age, SES or educational level, women feel a need to discuss behavior in a medium that is not judgmental or instructive, but one that fosters openness and support. Quantitative follow-up studies should be conducted to get access to the quantifiable psychosocial determinants of a larger population of women to tailor support groups and workshops to each particular variable to impact this sentinel group.

COMPETING INTERESTS

Authors have declared that no competing interests exist.

REFERENCES

1. Titus A. The paradox of South Africa: How antibiotic resistance fits into the health picture; 2011.
(Accessed 24 January 2013)
Available:http://www.cddep.org/blog/posts/paradox_south_africa_how_antibiotic_resistance_fits_health_picture#sthash.uXXlfrE9.7s3YbPiO.dpbs
2. Risser J, El Reda D, Meade CD, Hughes E, Perry M, Harms J. Epidemiological profile of sexually transmitted diseases—Houston, Texas; 2014.
(Accessed 27 September)
Available:<http://www.houstontx.gov/health/ComDisease/STD/Epi%20Profile%20Entire.pdf>
3. Muula AS. HIV infection and AIDS among young women in South Africa. *Croatian Medical Journal*. 2008;49(3):423-435.
DOI: 10.3325/cmj.2008.3.423
4. Centers for disease control and prevention. 2013 STD surveillance gonorrhea. (Accessed 1 April 2013)
Available:<http://www.cdc.gov/std/stats13/gonorrhea.htm>
5. Rothenberg R, Voigt R. Epidemiologic aspects of control of penicillinase-producing. *Neisseria gonorrhoeae*. 1988; 15(4):211-216.
DOI: 10.1097/00007435-198810000-00007
6. World Health Organization. Global incidence and prevalence of selected curable sexually transmitted infections; 2008.
(Accessed February 2014)
Available:http://apps.who.int/iris/bitstream/10665/75181/1/9789241503839_eng.pdf
7. Duplessis C, Pupilampu N, Nyarko E, Carroll J, Dela H, Mensah A, Amponsah A, Sanchez J. Gonorrhea surveillance in Ghana, Africa. *Military Medicine*. 2015; 180(1):17-22.
DOI: 10.7205/MILMED-D-13-00418
8. Mabey D. Epidemiology of STIs: Worldwide. *Epidemiology and Sexual Behaviour*. 2010;38(5):216-219.
DOI: 10.1383/medc.29.7.3.28391
9. Reday P, Frantz J. HIV/AIDS knowledge, behavior and beliefs among South African university students. *Journal of Social Aspects of HIV/AIDS*. 2011;8(4):165-170.
DOI: 10.1080/17290376.2011.9725000
10. Lamprey PR. Reducing heterosexual transmission of HIV in poor countries. *British Medical Journal*. 2002;324(7331): 207-211.
DOI: 10.1136/bmj.324.7331.207
11. Higgins JA, Hoffman S, Dworkin SL. Rethinking gender, heterosexual men, and women's vulnerability to HIV/AIDS. *American Journal of Public Health*. 2011; 101(4):585.
12. Nzewi O. Exploring gender issues and men's vulnerability to HIV/AIDS in Sub-Saharan Africa. Policy Brief 56. Centre for Policy Studies, Johannesburg; 2009.
13. Booyesen FR, Summerton J. Poverty, risky sexual behaviour, and vulnerability to HIV infection: Evidence from South Africa. *Journal of Health Population Nutrition*. 2002;20(4): 285-288.
14. Johnson L, Budlender D. HIV risk factors: A review of the demographic, socio-economic, biomedical and behavioural determinants of HIV prevalence in South Africa. *Care Monograph*. 2002;8:1-49.
15. Rudestam KE, Newton RR. *Surviving your dissertation: A comprehensive guide to content and process* (3rd ed.). Newbury Park, CA: Sage Publications; 2007.

16. City of Cape Town. Population census. (Accessed March 25, 2014)
Available:https://www.capetown.gov.za/en/stats/2011CensusSuburbs/2011_Census_CT_Suburb_Langa_Profile.pdf
17. Thomas J, Harden A. Methods for thematic synthesis of qualitative research in systematic reviews. BMC Medical Research Methodology. 2008;8(1):45-55. DOI: 10.1186/1471-2288-8-45

© 2016 Ndwanya et al.; This is an Open Access article distributed under the terms of the Creative Commons Attribution License (<http://creativecommons.org/licenses/by/4.0>), which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited.

Peer-review history:
The peer review history for this paper can be accessed here:
<http://sciencedomain.org/review-history/15902>