Exploring factors causing the high incidence of sexually transmitted infections in the township of Du Noon

Dissertation presented in partial fulfilment of the requirements for the degree of Master of Medicine in the Family Medicine Faculty of University of Cape Town

RESEARCHER: Dr Azhaar Bibi Faatimah DOOKHITH
STUDENT NUMBER: DKHAZH001 (afaatimahd@gmail.com)
Department FAMILY MEDICINE-University of Cape Town
SUPERVISOR: Dr Abdul-Aziez ISAACS
CO-SUPERVISOR: Dr Adil RAZACK

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CONTENTS

PAGE

DECLARATION

By submitting this dissertation electronically, I -Dr AZHAAR BIBI FAATIMAH DOOKHITH declare that this thesis with title **"Exploring factors causing the high incidence of sexually transmitted infections in the township of Du Noon"** is being presented for the degree of Masters in Family Medicine.

I, hereby declare, that I am the sole author of this research work. It was done solely by me, thereof (save to the extent explicitly otherwise stated by reference or acknowledgement). The University of Cape Town's reproduction and publication will not infringe on any third-party rights.

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Exploring factors causing the high incidence of sexually transmitted infections in the township of Du Noon

Abstract

Introduction: Sexually transmitted infections (STIs) are of major public health concern in South Africa. STIs contribute largely to the burden of disease in South Africa and are recognized as major contributors to the Human Immunodeficiency Virus (HIV) epidemic. Du Noon is a small township situated in Milnerton, Cape Town, South Africa. Du Noon CHC has a large HIV population of approximately 8000 people and recent data obtained from Du Noon CHC statistics, from Nov 2019-Feb 2020 showed 1760 people being treated for STI as per the headcount.

Aim: This study intends to explore the factors which may be responsible for the high prevalence of STI among the population of Du Noon Township in Cape Town, South Africa.

Methodology: A cross- sectional study with 40 respondents aged between 18 and 45 years was conducted. One-on-one patient interviews using open-ended questions, as well as structured questionnaires, were used to gather data. The questionnaires were analysed using the Likert Scale and open-ended questions were analysed using exploratory descriptive methods.

Results: Cultural beliefs, having multiple partners, lack of partner notification, alcohol consumption and lack of condom usage were found to be the main contributing factors to the high incidence of STIs. Sex education at schools appear to be lacking or not in sufficient detail to inform students. The study's findings echoed themes and larger ideas from previous research. It reflects the other well-known cultural and socioeconomic issues confronting South African rural communities e.g., poverty and sex, age -disparate relationships, polygamous relationships.

Conclusion: This study fills a gap in the local literature by highlighting how health education challenges, interpersonal relationships, and socioeconomic barriers are still important factors in STI transmission. Although the study's findings may only be applicable to this community, they may have an impact on other communities with comparable populations. The widespread preliminary understanding and framing of HIV as a STI and how it is transmitted needs further investigations and research. As a result, there is an urgent need to shift cultural ideology and norms within the youth of the Du Noon community.

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Introduction

Sexually transmitted infections (STIs) are of major public health concern in South Africa(1). South Africa's burden of disease due to sexually transmitted infections (STIs) is currently one of the largest in the world(2)(3) . The prevalence of STIs is very high and can lead to increased risk of HIV transmission, adverse pregnancy outcomes and infertility (3)(4).

Background and motivation.

STIs contribute largely to the burden of disease in South Africa and are recognized as major contributors to the human immunodeficiency virus (HIV) epidemic(5).This burden of disease has historically been heavy, and continues to be a serious public health problem in South Africa(6). Patients with STIs face an increased biological risk of HIV acquisition because of the virus' invasion of the immune system through genital lesions and/or inflammation caused by STIs(7).

Moreover, sexually transmitted infections other than HIV are also important global health issues. In South Africa approximately 11 studies on STI's were done in the last 10 years. Most of them have showed that there is a link between STI and HIV. It is most likely that other STIs is a contributing factor in transmitting HIV at a higher rate(3)(4)(5)(8)(9)(10)(11)(12)(13)(14)(15).

STIs remains a hidden epidemic in South Africa, with 7.9 million people living with HIV in 2017. A larger percentage of these also have STI's(16). The study referred in the *National Institute for Communicable Diseases* article of 4th march 2019 estimated 2.3 million new cases of gonorrhoea, 1.9 million new chlamydia cases and 23,175 new syphilis cases among women aged between 15 and 49. Among men of the same age there were an estimated 2.2 million new cases of gonorrhoea, 3.9 million new cases of chlamydia and 47,500 new cases of syphilis(16).

After my recent rotation at the Dunoon CHC, as a researcher, I have personally noticed that the prevalence of STIs seemed higher than in other communities I have previously worked in. A clinical governance meeting indicated that STIs was a significant burden on the Du NOON CHC. Thus, there was a need to determine which factors may be contributing to this challenge. No previous local studies have explored the factors responsible for the high incidence of STIs.

Du Noon is a small township situated in Milnerton, Cape Town, South Africa. Its population mainly consist of Black African 89.3% who are mostly Isi Xhosa speaking(17). It has a formal and dedicated community health centre that has been operational since 2015(18). Du Noon CHC has a large HIV population of approximately 8000 people and recent data from Nov 2019-Feb 2020 showed 1760 people being treated for STI (17)(18).

LITERATURE REVIEW

A. **The epidemiology of STI in the sub-Saharan countries including South Africa**.

According to a study done in 1996, from the Genitourinary Medicine Journal: The appearance of HIV/AIDS, sexually transmitted infections (STIs) have re-emerged as a grave public health problem, particularly in developing countries. The inter-relationships between HIV and STIs mean that an understanding of the burden and transmission patterns of STIs are imperative(19).

In South Africa, the epidemiology of STIs has been largely neglected. The historical lack of interest in STIs as a health priority and the absence of a surveillance system, resulted in difficulties of collecting data from a fragmented health care system. Facility-based ad hoc surveys have provided some point estimates of the burden of the disease. A broad cohesive picture of the state of STIs in South Africa is missing(19).

In the sub-Saharan African countries including South Africa, where AIDS is established, HIV transmission is primarily by means of sexual contact. A major co-factor in such transmission is the presence of other sexually transmitted infections (4)(14)(20)(21)(22).

A study recently published in PLOS Medicine, included more than 37 000 women in sub-Saharan Africa, estimated the prevalence of chlamydia, gonorrhoea, syphilis, trichomoniasis, HSV-2, and Bacterial Vaginitis(14). This showed that estimated STI prevalence often varied by region. For example, chlamydia and gonorrhoea prevalence was higher among South African women enrolled from clinic/community settings than among similar populations elsewhere in Southern/Eastern Africa(23). It has also been concluded from a 2018 study, that the lack of any decline in gonorrhoea and chlamydia prevalence highlights the need to enhance STI services beyond clinic-based syndromic case management(24).

Another study done in 2020 on the high prevalence and incidence of sexually transmitted infections among women living in Kwazulu-Natal, South Africa, concluded that there is extremely high prevalence 83.3% and incidence 36.6% of STIs were HIV positive among women living in rural and urban communities of KwaZulu-Natal, South Africa(4). In 2018, a nested survey in a health and demographic surveillance site of KwaZulu- Natal was done on the prevalence of sexually transmitted infections among young people. This study showed that among young women the prevalence of STI is very high 88.8% among which 75% were asymptomatic(14). A recent study done in 2016 showed that bacterial STI prevalence rates in South Africa are relatively high, even compared to other African countries(14). It is estimated that one in four women in South Africa is infected with at least one bacterial STI. The burden of STI in South Africa is estimated to be higher in women than in men(14)(24).

B. Exploring the understanding and level of knowledge about STIs of the population

A study "Knowledge and risk perception of sexually transmitted infections and relevant health care services among high school students in the Platfontein San community, Northern Cape Province, South Africa" was a descriptive cross-sectional study and showed that STI knowledge levels did not appear to have any effect on perceptions of risk of acquiring STIs or the relationship between STIs and HIV transmission(10).

A cross- sectional study was done in 2017 in Malaysia among university students, who will be future health care providers, assessing their knowledge, attitudes, risky behaviours and preventive practices related to sexually-transmitted diseases. The conclusion was that knowledge on the non-HIV causes of STIs is still lacking, and the risky behaviour practiced by the sexually-active students in this study was quite alarming(25).

The study "Knowledge gaps of STIs in Africa; Systematic review" in 2019, concluded that the implementation of educational awareness programs in schools, campaigns for knowledge raising about STI in urban and rural areas at national level will increase awareness and willingness for screening and for decreasing STIs transmission and discriminations in Africa(26).

C. Ethnicity, culture, socio-economic factors influencing sexual behaviour and STI in South Africa.

It has been observed from a study done in other rural areas of Eastern South Africa how sexual behaviour is the most important determinant of the burden of HIV and sexually transmitted infections(20). A descriptive study was conducted in rural Mopani District, South Africa, as part of a larger study on STI. This study gave insight into women's sexual behaviour in a rural South African region. In conclusion this study showed the relationship between age and sexual behaviour and confirmed that younger women are known to engage in higher risk sexual behaviour and had higher number of concurrent sexual partners. The knowledge of the partner's HIV-status was low among women, and that HIV-infected women reported a higher lifetime number of sexual partners(20).

To address the concern of sexual behaviours and sexually transmitted infections, there was a study done in various sub- Saharan countries and the USA. It was concluded that sexual behaviours vary coherently between different populations and ethnic groups. Sexual behaviour is also one factor responsible for a high risk of STI(20)(27).

In a study published in 2007, it has be found that, the low socio-economic status of women has also played an important role in promoting the spread of STIs and is a continuing obstacle to STI prevention efforts(24).

Purpose of this study

The purpose of this study is to explore the factors which may be responsible for the high prevalence of STIs amongst the population of Du Noon Township in Cape Town- South Africa. This will enable us to better understand this community's level of knowledge and attitudes towards STI, in order to have targeted interventions.

Aim:

This study will aim to explore factors which may contribute to the high prevalence of STIs in the township of DU NOON. Mostly the factors that will be pointed out by patients who attend the clinic for treatment of STIs during this the study.

Objectives-To determine:

a) Patients' knowledge of STIs.

b) Culture and religious beliefs around sexual behaviour.

c) The relationship between Socio Economic factors and sexual behaviour.

d) Sexual behaviour of young adults.

METHODOLOGY

INTRODUCTION:

This chapter discusses the research methodology: research design, sampling and sampling procedure, instrumentation, data collection procedure, data analysis and ethical issues.

Study Design

A cross- sectional study design will be used for this research similar to the one done in 2017 by Folasayo AT, Oluwasegun AJ, Samsudin S, Saudi SNS, Osman M, Hamat RA (25). A cross-sectional study is an observational study that involves the analysis of data collected from a population, or a representative subset, at one specific point in time. A cross-sectional study measures both the exposure and the outcome of interest at the same point in time(28).

This design has been chosen as it allows participants in the study to participate in an open-ended interview as well as complete a structured questionnaire in order to explore the reasons for the high incidence of STI in this community.

The sampling method was purposive, one of the most common sampling strategies. More random sampling would have been preferred but due to time and resources limitations this was not possible. The COVID-19 pandemic also contributed to the eventual limited sample size of 30 participants.

SELECTION CRITERIA

Inclusion Criteria	**Exclusion Criteria**
Age group: 18 yrs.-40 yrs.	Interpersonal violence
Confirmed diagnosis STI	Complicated STI
Sex – male or female	Pregnancy
Mentally competent	Newly diagnosed HIV
	Recurrent STI

The table above refers to preselected criteria for participating in the study. The participants fulfilled all the above criteria before participating in this study.

a) Age group: The range is from18 yrs. old to 40 yrs. old, that it because this study only wants to focus on younger adults as older patients may be in the minority and have different reasons for re-infection than younger patients.

b) Confirmed diagnosis STI: this will be based on the history of the client and clinical examination.

c) SEX: Both males and females participants were considered with an even ration of 1:1.

d) All participants were mentally competent to understand the purpose of this study, gave informed consent and answered the questionnaire survey.

Even though during the COVID-19 pandemic, the Du Noon CHC still attended to walk- in/unbooked clients, they were all screened for COVID-19 at the entrance of the clinic. Those without COVID-19 symptoms were allowed to form part of the walk-in queue. Strict precautions were taken by the health staff of the clinic by wearing Personal Protective Equipment, applying social distancing among the walk-in patients as well as using hand sanitizers.

Method

Recruitment: Participants presenting to the walk-in clinic at DU NOON CHC during the study period, who meet the criteria of screening for symptoms for STI were invited to participate in this study. Recruitment of patients occurred over a period of 2 weeks starting from the 05/05/2021-14/05/2021. The recruitment process was primarily done by the researcher. An Enrolled Nurse Assistant (ENA) working at Dunoon CHC formed part of the team to assist with translation when required. This was arranged and agreed upon by Dunoon CHC OPD Operational Nursing manager.

Consent was obtained both verbally and written prior to the interviews by the researcher. (Annexure 1) Interviews were done in participant's language of preference such as Isi Xhosa and Shona with the help of the ENA when there was a need. The interviews were conducted at the Du NOON Community health centre in a dedicated and private consultation room.

Instruments

A one-on-one patient interview, using a structured questionnaire, (Annexure 2) was used to gather data. This validated and reliable self-administered questionnaire used in the study was adapted from several studies(25)(29)(30). The questionnaire expands on questions asked in previous studies that explored basic knowledge of STIs(25), accessibility of condoms and importance of partner notification (40). Positive and negative framing questions was used to improve reliability of answers. Each answer had 7 possible response items so that more detailed information was gathered. Open-end questions were also asked to explore beliefs and social influences around STI's.

A Likert Scale was used for the scoring questions. This is a scale used to represent people's attitudes to a topic. A **7-point Likert scale** for example, to score agreement will include options such as; strongly disagree, disagree, somewhat disagree, neither agree or disagree, somewhat agree, and agree while **7-point Likert** examples for frequency and satisfaction follows the same manner.

Data collection and analysis

All interviews were recorded on audiotape and transcribed verbatim. For the open-ended questions, topics were identified and coded inductively from the text and then grouped together into coherent categories. Answers to the Likert Survey questions were examined and explored. Answers are displayed as a summary on the graph below. When most of the answers were

common, and toward the ends of the scale, these statements were taken as important and significant.

The audio records of the interviews as well as the questionnaires were stored securely on a password protected computer or in a locked cabinet. The information obtained was only accessible to the principal researcher and the supervisors.

Ethical issues:

Ethical approval and permission to participate

Ethical oversight for the study was obtained from the Ethics and Research Committee, Faculty of Health Sciences of the University of Cape Town. Approval for the study was obtained from the Provincial Research Committee and Metro District, as well as from the facility manager of the Du Noon CHC. All patients who participated in the study signed a consent and confidentiality form.

Informed consent and autonomy

Participants were informed verbally about this study and receive a description on the intended use of data that was collected.

The time required for participation and the role of the researcher as non-interfering and non-judgemental was explained. Each participant was asked to sign a consent form by the primary researcher prior participating in the interviews. (Annexure 2)

It was made clear to the participants that they had the right to freely decide what information they share with the researcher and what could be used or not. The participants had the right to withdraw at any time without penalty. Participation or withdrawal from the study did not affect their treatment course on the day of the interview or in the future.

Confidentiality

Participants were assured that the information obtained from them will be treated as confidential. No names of participants would be used neither on the questionnaire nor during record keeping of the information obtained. All interviews were done in a private consultation room, located some distance from the general patient flow.

Anonymity

All data that were collected through participants in this study, have been anonymised. This means that information that identifies an individual participant such as name, address, identification number or folder number has been removed.

The intent of anonymisation is to turn data into a form which does not directly identify the individuals and where re-identification is not likely to take place.

Harm to respondents

Due to the nature of in-depth interviews and the sensitivity of the topic chosen, there was a risk of participants becoming emotionally distressed or feeling stigmatized.

The researcher was aware of this possibility and actively looked out for signs of distress. If this occur during the interview, the interview was stopped and the needs of the participant attended to. Sufficient time was aliquoted to express any significant emotion. In the event where a participant experienced significant emotional distress, an appropriate further mental health screen was carried out. Referral to the appropriate clinician, counselor or social worker who are readily available at the CHC was then made.

To reduce the potential for stigma, the ENA assisting with translation was not living in the Dunoon community. Care was taken to remain kind and empathetic towards participants.

Beneficence

This study could lead to a better understanding of STIs among the Du NOON community. Informed decisions can then be made for interventions. Reducing the incidence of STIs can reduce high patient numbers, HIV transmission, adverse pregnancy events and infertility. The study could potentially help other community health centres with a similar burden to improve their outcomes.

RESULTS:

The total number of respondents approached by the researcher was 50 in the 2 weeks data collection period and 40 were found to be eligible. Ten respondents were not eligible due to various reasons such as being younger than 18 years old, already on the ARVs or not living in the Du NOON community. A total of 40 one-on-one patient interviews, of about 10-15 minutes was done using a structured questionnaire, (Annexure 2) were performed by the researcher and all questions were answered. Data saturation was obtained from the 40 participants for the open-ended questions.

The majority (24) of the respondents were South African citizens while other participants were from other Sub-Saharan countries like Zimbabwe and Malawi. See Table1 below:

Table 1: Gender distribution and Nationality.

GENDER	Male participants	Female participants	Total
Countries	SA- 15 (37.5%)	SA-9 (22.5%)	24 (60%)
	Foreigners- 12 (30%)	Foreigners-4 (10%)	16 (40%)
Total participants	27 (67.5%)	13(32.5%)	40 (100%)

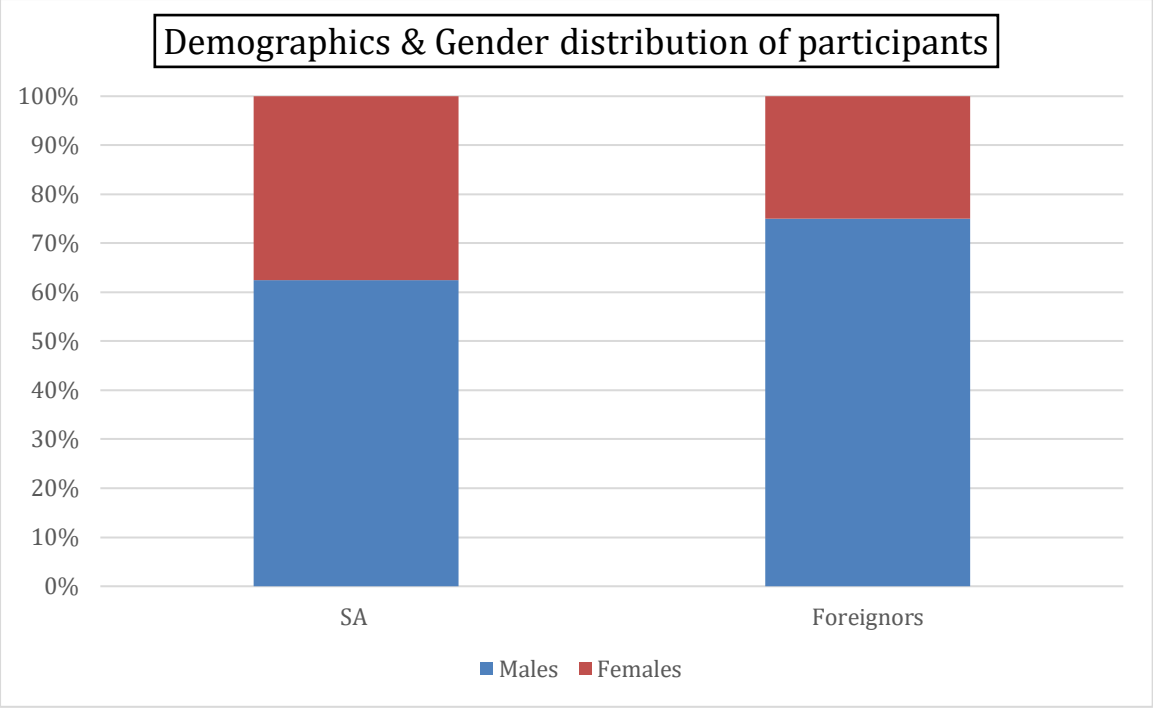

Figure 1: Gender distribution and Nationality.

Table 2: Age distributions of the participants.

Age group	Males	Females
19-25	7 (17.5%)	5(12.5%)
26-35	12(30%)	8(20%)
>35	5(12.5%)	3(7.5%)

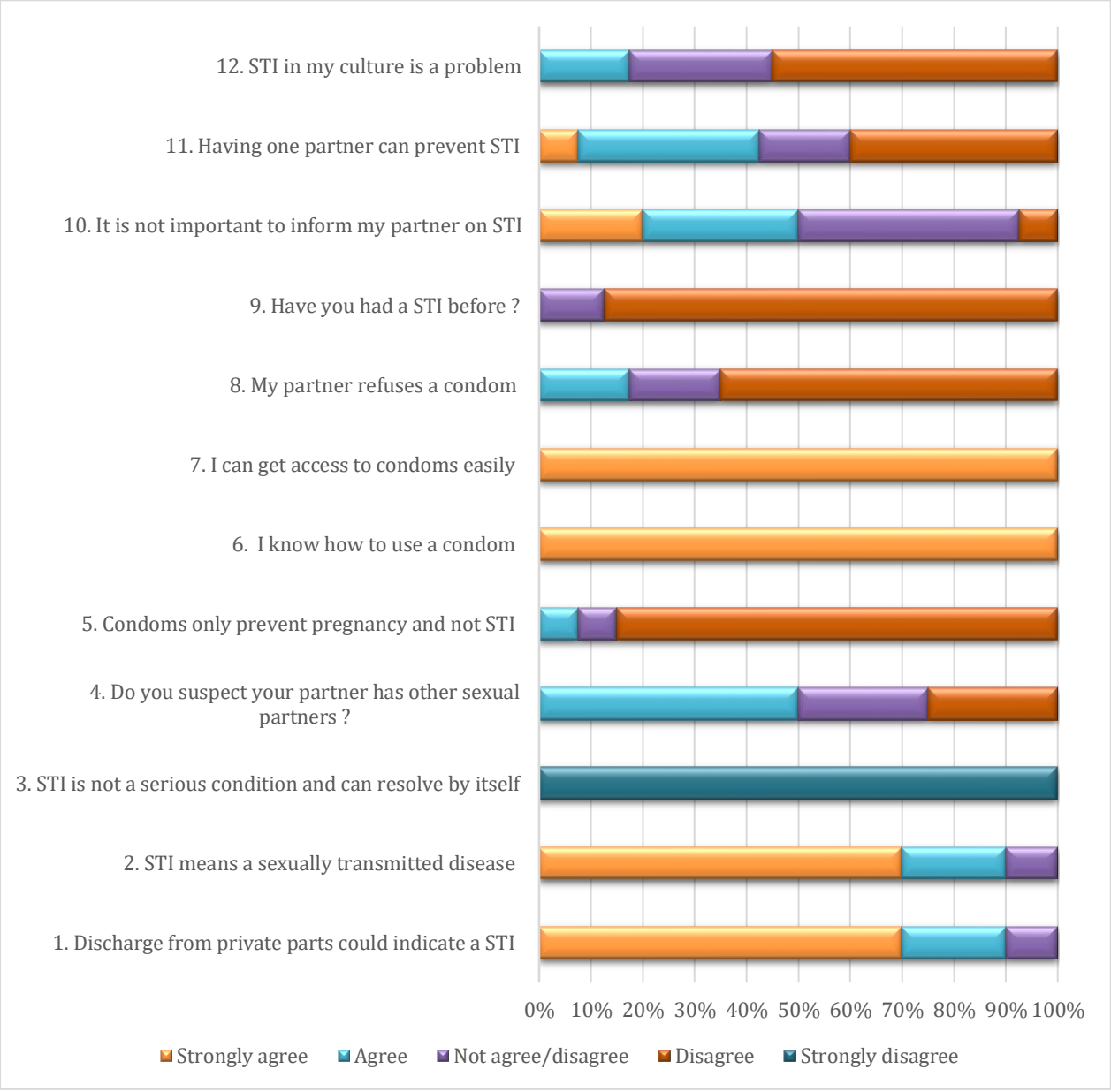

Figure 2: Summary of the survey questions

Figure 2 indicates that 90% of the participants have a general understanding of what STI means and that a genital discharge can indicate a STI (question 1 and 2). In question 3 everyone disagreed, meaning they all felt that STI is a serious condition that requires treatment. Many suspected that their partner may have other sexual partners (50%), and some seemed uncertain (25%). Responses in question 5 showed that most participants knew that condoms could prevent STI. All knew how to

use a condom, and all had access (question 6 and 7). Interestingly less than 20% said their partner refused to use condoms while 20% were uncertain (question 8). In question 9 most (90%) said they did not have a previous STI. When asked about importance of notifying partners and having one sexual partner we got a mixed response (question 10 and 11). Answers regarding culture and STI also evoked a mixed response.

The following themes were derived from the open-ended questions and some were similar to the questionnaire themes. The interview process identified further themes that we felt needed to be discussed as additional themes viz, Condom usage, substances, social media, partner notification.

Questionnaire themes:

Patients' knowledge of STIs.

Culture and religious beliefs around sexual behaviour.

The relationship between Socio Economic factors and sexual behaviour.

Sexual behaviour of the young adults.

Further themes identified:

1. Knowledge of STI
2. Condom usage
3. Cultural influences
4. Socio economic challenges
5. Substance usage
6. Social Media
7. Partner notification

1) Knowledge of STIs

Most of the respondents obtained information on STIs from two major sources which were from elder siblings or friends.

The life orientation class at high schools only briefly touched base about what STIs are. The participants attributed the main reason for not being well informed at school about STI is "shyness" of the teachers in speaking about this topic to them.

2) Condoms usage

A majority of participants who are in a long-term relationship with their partner do not use condoms. Reason included less sensation and pleasure when using condoms and by using condoms trust in the relationship is not encouraged. Alcohol consumption seemed to reduce condom usage.

Below are some of the responses obtained from the participants in the interviews:

Interviewer: "How did you become aware about his other sexual partner?"

Participant No 3:" Oh, I knew about it already he does, he is a family friend. He is often home visiting my elder brother. That's how I got to know that he isn't married but is co-habiting with a female friend."

Interviewer: "Did you use any precautions when you had sex with him?"

Participant No3: "Only the 1st time, but then afterwards it was direct contact. He says he enjoys is more with me like that. I am fine with it because I love him and will do anything to keep him happy."

Interviewer: "How about preventing yourself from getting pregnant or catching a STI?"

Participant No 1:" I was head over heels in love with him. Whatever he said goes. But honestly, while I was with him, at that time getting a sexual infection never came to my mind."

Participant No, 11:" I think being in a stable relationship it's a normal practice of not using condoms. When you are having a fling sex with a friend. You know the thing, of "friends with benefit" since you're not really in a relationship with that person, then you use it mostly because you don't want a bun in the oven."

(Male participants 'age: 20-27 SA and foreigners)

Male participant No 7: "If I am drunk at a party or club and then meet a girl obviously, we are going to have sex without condoms. That's because sex under influence of alcohol is always another story. When booze hits hard, you don't think of condoms and the girls always love it like that."

3) Culture and Peer pressure

Young people between the ages of 25 and 35, the men were more likely than women to say that peer pressure encourages them to have multiple sexual partners. They also discussed isiXhosa men's masculinity and how their ethnicity is linked to perceptions of greater sexual prowess that are perpetuated by the community and social media. It has been pointed out from several participants that peer pressure can force teenagers to initiate sexual activity during high school days.

Lack of fulfilment of sexual needs by one sexual partner, a desire for "variety," "lust," and the fact that it is a "biological thing" were frequently cited as motivators, particularly among males. This is seen in the responses of the participants as shown below:

(Male participants aged 32-40)

Male participant No 3: Let me explain to you, for example when a guy and a woman have been for a long time and she's busy or tired sometimes and this result is loss of interest in intimacy, so eventually the guy will have to satisfy himself elsewhere. But there is still love between them so it can happen that she ends up getting STI that way.

Interviewer:" What takes you to cheat on your partners?"

Male Participant No 17: "Well, the need for a change, I would say, that's why, when you meet a new partner, the sex always tastes different. The reaction always surprises you. Usually, you get bored of a monotonous sex life, always same position or same reaction. It's like the menu is always the same, there is no change. I want to feel different, else the fun in sex is lost. You need to spice up your sex life. But then you never think of STIs at this moment. "

Male participants No 21:" Yes, but it's not only a man thing, its equality of gender in everything nowadays! I know personally women who got fed up of their guy. This usually happens when the guy is a long-distance driver so he is away for 3-6 months and who obviously the woman will look around to have sex. She needs to fulfill her natural need. I think you cannot blame her. Her guy is there but away too long. I can assure you that her guy is also getting his share there wherever he is, he has his needs and she knows that also."

Male Participant No 5:" Being young, it doesn't cross your mind of getting STIs by swapping partners. It happened mostly due to peer pressure. I can recall such situations in my younger days where it was just me and my group of friends. Well, at that time it was, what you want you go for it."

Male Participant No 7: "To be promiscuous it's something encouraged amongst young isiXhosa men by older men in our culture, so I think that might be a reason."

Some interviewees stated that certain people have multiple relationships because it is "learnt behavior." You "believe this is the norm" because they saw it with their parents or other family members. So, they engage in similar relationships consciously or unconsciously.

Several of the participants grew up into a single-parent family without a father figure. It mostly reflects in some of the young people's attitude towards sex, relationships and notion of family. They believe they can mirror their relationship as of what their parents did.

4) Socio economic

It was discovered that with both men and women, who were in a previous partnership and had a child, sex was sometimes used to secure finances.

Some of the participants associated sex with money, "a way to get out of poverty".

Female Participant No 10:" It became more casual kind of thing when I recall it and we usually enjoy the sex without use of condoms. He knows I am on the pill and the best part is he will usually then leave me some extra cash."

Female participant No 28:" I prefer going out and have sex with more mature guys, I mean working men. They will always buy /bring me something like a phone, perfumes. Take me for a nice meal in a restaurant. I get to enjoy things which are out of my reach. You feel upgraded in status. "

5) Substances

All participants agreed strongly that alcohol and drugs increase risky sexual behavior. Alcohol easily takes the drinkers into a state of promiscuous behavior and make them act with audacity and without restrain. and, which makes them riskier. The participants stated that the failure to use condoms during intercourse is mostly caused by loss of inhibition caused by alcoholic drinks.

6) Social Media

Some interviewees stated that mass media play a key role in shaping, preserving, and promoting cultural notion of masculinity, gender norms, and sexuality which, in turn, impact young adult generations' perspectives. Social media tools are also available, including Twitter, WhatsApp, dating sites. Dating sites are utilized to help other men and women find various partners effortlessly. Changing standards and attitudes towards sex are also thought to enhance risks of STIs through the ease of meeting sex partners online.

7) Partner notification

Male participants were more likely than females to be in many relationships at the same time. Because of few, if any, contact details, notifying side affairs partners is difficult. Unwillingness to see the partner again, as well as the thoughts of them being the source of infection, hampered notification of the other partners. Out of the 27 male participants 16 (59.25%) said they will try to get their sex partners notified. All of the participants were given the notification slip to give to their partner and to ask them to attend the clinic for treatment. Nevertheless, all the participants agreed that it is important to test themselves and notify the partner to prevent the spread of STIs.

Women were driven to notify their partners, but their motivations were frequently justified as a matter of practicality: They were worried about their health in general, or they knew their partners had other partners and recognized how notification could avoid re-infection.

Here are some responses that were obtained during the interviews:

Female Participant No 30: "My visit to the clinic today is mostly because I found that my partner has stepped out. He told me he still enjoys sex with me as well. The last time he met with the other guy. He told me that he has been using the condoms, but I know it a lie since with me he never likes to use it. So, I'm just came for check-up as I am afraid of catching somewhere down there."

Interviewer: "So how did you know he was having an affair?"

Participant No30: He wanted out of the blue to try different things while having sex with me. When I asked him, he agreed he stepped out. He says that he feels he enjoys it more with me if we try new things. I am somewhat scared and came for a check-up.

Male participant No 35: "I have a new girlfriend now, and every now and then I shack up with my ex-girlfriend. If I end up catching something with my ex, so now I have to notify my present girlfriend will just ruin this new relationship."

Another male participant:" I am a long-distance truck driver. I am a lot of time away from my wife. I am 45 yrs. I cannot risk having my marriage blown by informing my wife of my one-night affairs. I will just get treated and then after a week will drive back home to her. "

Interviewer:" How about informing the lady with whom you got the infection?"

Participant: "It's useless to inform her because I won't see her again."

Discussion:

The initial aim of the study was to explore factors that lead to the high incidence of STI's within the Dunoon Community. From the survey we gathered important information and dispelled some assumptions we may have had. Results from the survey showed that participants knew what an STI is, how it presents and that it needs treatment. They knew that condoms can prevent STI's, how to use it and had easy access to them. Despite knowledge of STI's and how to prevent it, high risk behaviour still ensued. Cultural beliefs, having multiple partners, lack of partner notification, alcohol consumption and lack of condom usage are all aiding in the high incidence of STI.

These themes were further explored in the open-ended questions. Cultural ideas and understanding of sexual relationships from older men seem to influence younger generations. This, with peer pressure and social media seems to create a norm and desire to have multiple sexual partners. A lack of sexual fulfilment may also indicate that some men are not in committed, loving relationships.

There is little alternative information around the benefits of aspiring to a loving secure relationship. School teaching seem to shy away from teaching of appropriate and detailed information about STIs.

The socio-economic challenges of the community, negatively affects young females. This scenario almost creates a situation where one desire is met with another. Young females in need of financial support are met with males who may be financially empowered and in need of sexual gratification and masculine status.

These core values and social problems make it easier to understand why condom usage is low and partner notification is difficult. Adding to the above problem is the high incidence of alcohol usage and the lack of inhibition that results from its usage.

How this study compares to other studies done:

Our study emphasizes the significance of raising STI awareness and incorporating sexual and reproductive health into education systems. This was also demonstrated in the 2016 study done in the Platfontein San Community (31).Our study highlighted the effects of social economic burden and relationship to STI, similar to the study done in the Mopani district.(32). This was also evident in 2017 study, which spoke about the link between socioeconomic status and HIV as the most common STI, which has been on the rise in the Free State and Western Cape provinces of South Africa (33).

The study that we did has added to knowledge in that it explored, the cultural influence on sexual behaviour. It further highlighted social economic reasons why woman may show risky behaviour despite good understanding of STI and prevention.

Limitations of the Study

Limitation

The results obtained in this study only represented those who attended the DU NOON CHC within those 2 weeks of the survey (*n* = 40). The results may therefore not adequately reflect the views of the broader community. The survey was done during the COVID 19 level 3 alert lockdown which may have added extra social economic strain on participants as well as health seeking behavior. Some participants were not fluent in English and a translator was used. In these interviews some information may have been lost in translation. Only one interviewer was used due to resource constraints. More males were interviewed than female, possibly skewing the data.

Credibility:

The following provisions were made in this study to promote credibility.

1. The open-ended questions were used to rule out possible biases in the survey. The respondents were free to express their opinions about the questions asked.

2. Maintaining good rapport and setting participants at ease during the interview process. Using verbal and non-verbal cues to encourage confidentiality and non-judgmental atmosphere.

3. Confidentiality and voluntary inclusion in the study was ensured and reminded at various points in the interview process

4. Survey questions had a mixture of positive and negative framing to avoid bias

Triangulation:

To improve data a sample size of 40 was used, with a good spread between male and female. Triangulation of information was further reached by allowing all the participants to answer the survey and by further checking and exploring their answers in the open-ended questions. During the interview process answers were checked and read back to participants making sure of the content recorded.

Validity:

Results from the study echoed themes and broader ideas from other studies (4)(10)(25). It reflects the other known cultural and social economic problems facing rural communities in South Africa (34). A study published in Health Communication research 2011 looked at Language choice and sexual communication among Xhosa speakers in Cape Town, South Africa. This study explores culture and communication and validates findings about cultural problems leading to high STI transmission(35).

Strengths of the Study Design

This research design used in-depth interviews, thus analyzing and describing a topic which is complex and involves descriptions of attitudes, knowledge and beliefs. This is seen in all the quotes of the participants, which makes this research reflecting the reality of those participants. It focused only on Dunoon and is linked to a high burden of disease for the Dunoon CHC to manage. Information from this research can thus be used to improve and potentially reduce burden of disease.

Conclusion and recommendations

Although the study's findings may only be applicable to this community, they may have an impact on other communities with comparable populations.

Overall, the widespread preliminary understanding and framing of HIV as a STI and how it is transmitted needs further investigations and research. This study filled a gap in the local literature by highlighting how health education challenges, interpersonal relationships, and socioeconomic barriers are still important factors in STI transmission.

As a result, there is an urgent need to shift cultural ideology and norms within the youth of the Du Noon community. Adequate and correct information is essential for the youth before they begin sexual activity. Health care professionals from the CHC could be allowed to give STI talks in schools. This will also be an important step in disseminating STI knowledge among this community's youth. Regular STI screening and treatment at the community level may aid in the reduction of STI spread. We cannot ignore the high usage of alcohol across South Africa (36)(37)(38) and its influence on risk behavior and interpersonal violence.

Implication for clinical practice.

This survey was conducted to investigate the factors that contribute to the high prevalence of STIs in the DU NOON community. Behavioral changes remain the most complex and difficult to address. While secondary prevention and treatment methods at clinic level must be robust and up to date, primary prevention may require multidisciplinary approaches. The focus on youth friendly services providing alternative explanations from cultural, social media and peer pressure information may

be one area to focus on. Youth role models can also assist in empowering youth. Community orientated primary care may also see more clinical nurses, medical officers and Health promoters promoting health in the community and utilizing media to spread messages that may reduce risky sexual behavior.

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APPENDICES

Annexure 1

Informed consent form for participants.

Title: Exploring factors causing the high incidence of sexually transmitted infections in the township of Du Noon.

(Date)

DU NOON CHC, and we are inviting to participate in this research study.

Name of Principal Investigator: Dr Abdul Aziez Isaacs

Name of Co- Supervisor: Dr Adil Razack

Name of Researcher: Dr A.B. Faatimah Dookhith

Name of Faculty – University: Faculty of Health Sciences- division of Family Medicine at the University of Cape Town

This Informed Consent Form has two parts:

•Information Sheet (to share information about the research with you)

•Certificate of Consent

Form PART I: Information sheet

I, Dr Azhaar Bibi Faatimah Dookhith am currently a postgraduate student from the University of Cape Town and I am conducting a study under the Department of Family Medicine on**: Exploring some factors causing the high incidence of sexually transmitted infections in the township of Du Noon**.

I am conducting research with the full consent and collaboration of DU NOON CHC management. My aim is to understand some of the causes of the high incidence of sexually transmitted infections in the township of Du Noon and help the health facility of DU NOON CHC to target those causes and improve the care of patients with this health problem.

The survey will be done in the language in which you are mostly comfortable with. Please feel free to ask me or the health staff in our team to stop as we go through the interviews about anything not clear to your understanding and we will take time to explain.

This research will need you to answer some questions which I have set up.

I am inviting all adults between the ages of 18- 40 yrs. old who have been triaged to be seen by the doctor today in the walk-in clinic at the Du NOON CHC for treatment of a sexually transmitted disease.

Your participation in this research is entirely voluntary. It is your choice whether to participate or not. Whether you choose to participate or not, all the services you receive at this clinic will continue and nothing will change. If you choose not to participate in this research project, you will still be offered the treatment at this clinic. **Participants will not receive any money or food vouchers for taking part in the study.**

There are no risks involved in participating in this research study. There may be some questions which might cause some emotional responses. If during the interview such issues arise, the interview will be stopped when this happens and the researcher will assess whether to proceed or not. Counselling will be provided to the participants if needed.

DUE TO THE COVID19 PANDEMIC, we will be respecting sanitary measures such as: Physical distancing, wearing of face masks, keeping the room where interviews will be done well ventilated. Hand Sanitizers will be at hand.

Benefits

By participating you will help us to find ways to improve our understanding of STI (sexually transmitted infections) and how we can help future patients to prevent themselves from being infected with STIs.

Confidentiality

The information that we collect from this research project will be kept confidential and not be shared with anyone else, except for the purposes of this study. Your name will not be used in the research, and participants will be given a number. Only the researcher will know what your number is and all information will be safely stored away. It will not be shared with or given to anyone outside of the study.

Sharing the results

The knowledge that we get from doing this research will be shared with health management at DU NOON health facility. This will allow us to find ways to improve the health service and provide better ways to help the community to understand STIs and deal with some of its risks factors and improve its outcomes.

The results will be included in the study that the researcher is doing so that other researchers can build on it either to verify and confirm the results or even do further research of this topic. Confidential information will not be shared.

Right to refuse or withdraw from participation

You do not have to take part in this research if you do not wish to do so. You may also stop participating in the interview of the researcher at any time you choose. It is your choice and all of your rights will still be respected.

If you need to talk to anyone regarding this research, you can contact the following people:

Dr A.B.FAATIMAH DOOKHITH(researcher) on 0633070041 or **email at afaatimahd@gmail.com**

or **Dr Abdul Isaacs, Family Physician – Cell: 0718762257**

You may at any time contact the Human Research Ethics Committee for any further enquiry about this research work if you have any questions about any ethical issues regarding this study:

UCT Research Ethics Committee: **G50, G Floor, Old Main Building Groote Schuur Hospital**

TEL: **021 650 1236**

Email:**hrec-enquiries@uct.ac.za**

Part 2: Certificate of consent

Declaration by participant:

By signing below, I ……. agree to take part in a research study entitled: "**Exploring factors causing the high incidence of sexually transmitted infections in the township of Du Noon"**

I declare that:

- I have read or had read to me this information and it has also been explained to me verbally, and consent form and it is written in a language with which I am fluent and comfortable with.

- I have had a chance to ask questions and all my questions have been adequately answered.

- I understand that taking part in this study is voluntary and I have not been pressurised to take part.

- I may choose to leave the study at any time and will not be penalised or prejudiced in any way.

Signed at (place) ..... On (date) ……..……2021.

Signature of participant_____

Signature of witness_____

Statement by the researcher/person taking consent

I, have accurately read out the information sheet to the potential participant, and to the best of my ability made sure that the participant understands that he/ she will be asked a few questions about STI.

I confirm that the participant was given an opportunity to ask questions about the study, and all the questions asked by the participant have been answered correctly and to the best of my ability. I confirm that the individual has not been coerced into giving consent, and the consent has been given freely and voluntarily.

A copy of this Informed Consent Form has been provided to the participant.

Print Name of Researcher/person taking the consent_____

Signature of Researcher/person taking the consent_____

Date _____

Day/month/year

Annexure 2

Survey questionnaire

Background:

Male: Female:

Demographics:

For each of the questions below, circle the response that best characterizes how you feel about the statement, where

1 = STRONGLY DISAGREE

2 = DISAGREE

3 =SOMEWHAT DISAGREE

4= NEITHER AGREE NOR DISAGREE

5= SOMEWHAT AGREE

6= AGREE

7=STRONGLY AGREE

SCORING	1	2	3	4	5	6	7
QUESTIONS							
1. Discharge from private parts could indicate a STI (10)							

2. STI means a sexually transmitted disease (10)(39)(40)							
3. STI is not a serious condition and can resolve by itself							
4. Do you suspect your partner has other sexual partners (25)							
5. Condoms only prevent pregnancy and not STI (10)(20)(41)							
6. I know how to use a condom (25)(42)							
7. I can get access to condoms easily (10)							
8. My partner refuses a condom (20)							
9. Have you had a STI Before (25)							
10. It is not important to inform my partner on							

STI(39)(43)(40)							
11. Having one partner can prevent STI							
12. STI in my culture is a problem (44)(45)(20)(46)							

Open ended questions:

1) Explain your beliefs around STI
2) Do you think that social background plays a role on acquiring STI? If yes, would you mind sharing your opinion about it?
3) As a young adult, do think sexual behaviour is a cause of having STI? Can you explain how?
4) How do you feel about informing your partner that you are being treated?
5) How would you prevent STI in the future?