Talk or Text to Tell? How Young People in Canada and South Africa Would Prefer to Self-Disclose their STI Status to their Romantic Partners, Close Friends, and Parents

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Abstract

Text messaging or texting has become a popular way among emerging adults to maintain their interpersonal relationships, and has recently become regarded by health professionals as a tool for communicating with young people about sexual health. To determine whether university students can be invited to receive information, and disclose their newly realized STI status to their romantic partners, their friends, and their parents, to help curb the spread of HIV, Herpes, or Hepatitis, 303 students (183 from McGill University, and 120 from The University of Kwa-Zulu Natal) ($M=21$ years) indicated on a survey (a) how they would prefer to self-disclose their STI status to receive care and support from others: Talking face-to-face; a mobile phone call; an SMS text message; or other modes of computer-mediated communication. Students also indicated (b) how they would prefer to receive their STI test results from a doctor or nurse, and (c) receive new information about an STI relevant to their own health. Contrary to expectations from previous literature, almost all students indicated that they would prefer to self-disclose their STI status, as well as to receive results and new information by talking face-to-face with their partners, parents, and doctors, rather than through a text message, a mobile phone call, or any mode of computer-mediated communication. Male students were two times more likely than female students to prefer to self-disclose their STI status to their romantic partner by talking with them rather than phoning or texting them. McGill students were two times more likely to talk face-to-face with their parents about their STI status than were students at UKZN. Finally, two times the number of students at UKZN, and four times more female than male students at UKZN indicated that they would prefer to receive their STI test results from a health care professional by talking with them at a health clinic rather than communicating via a mobile phone call or a text message. Reasons for students’ preferences are explored through a qualitative analysis of their written responses.
Résumé

Pour déterminer si les élèves peuvent être invités à recevoir de l'information et de divulguer leur résultats de maladies sexuellement transmissibles (MST) à leurs partenaires romantiques et leurs parents, pour aider à freiner la propagation du VIH, l'herpès, ou de l'hépatite, 303 élèves (183 de l'Université McGill et 120 à l'Université du Kwa-Zulu Natal, (M = 21 ans) ont été invités à indiquer comment ils préféreraient se dévoiler leur résultats MST: (1) par rendez-vous; (2) par appel cellulaire; (3) par message texte (SMS); ou (4) par d'autres modes de communication médiatisées par ordinateur. Les étudiants ont aussi indiqué qu’ils préféreraient (5) de recevoir les résultats du test MST en visitant un médecin ou une infirmière, et (6) de recevoir de nouvelles informations sur une MST qu'ils ont contractée. Contrairement aux attentes de la littérature précédente, presque tous les élèves ont indiqué qu'ils préféreraient se dévoiler leur résultats MST, ainsi que de recevoir les résultats des tests et de nouvelles informations en discutant face à face avec leurs partenaires et leurs parents, plutôt que par un message texte, un appel cellulaire, ou toutes autres modes de communication médiatisées par ordinateur. Tous les élèves de sexe masculin ont été deux fois plus susceptibles à préférer à se dévoiler leurs résultats MST à leurs partenaires romantiques en parlant seuls à seuls plutôt qu’en échangeant les appels téléphoniques ou les textos. Les raisons de ces préférences et ces différences de genre seront examinées à travers des réponses écrites données par des élèves.
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Earliest Age of Mobile Phone Use
Use of a Mobile Phone on a Daily Basis
Use of a Computer on a Daily Basis

Analysis 1: All Modes of Communication
Self-Disposing STI Status to a Current or Most Recent Sexual Partner(s)
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Chapter One: Introduction

There are a number of reasons why mobile phones are seen to be useful in the context of giving out information to individuals about their sexual health: Phone calls and text messages provide an increased level of intimacy and trust due to the hyper-personal and anonymous nature that computer-mediated communications promote (Walther, 1996; Pettigrew, 2009). Mobile phone communications also create a private space where individuals are able to feel safe and secure (1) receiving their STI (sexually transmitted infection) status, and (2) disclosing their results to current or most recent sexual partners, friends, and parents, in the hopes of receiving support and advice about how to live with a sexually transmitted infection, such as Herpes, Hepatitis B, and HIV or AIDS. Since mobile phone calls, and text messaging specifically, have become a more convenient, inexpensive, and socially acceptable mode of communication for university students and other young people all over the world (Leung, 2007), the usefulness of a mobile phone as a communication pathway could be implemented in the fight against HIV/AIDS and other STIs by connecting young people to (a) loved ones, and (b) sexual health professionals.

However, while the potential for delivering test results to people in such a convenient fashion is optimistic, particularly in South Africa, where the prevalence of HIV or AIDS is the highest in the world (UNAIDS, 2010), no one yet has asked young people if, in fact, they would prefer to become informed about their health status through a phone call or text message. Further, there are ethical issues that should be considered before programs begin to deliver STI results to patients. For example, how will health professionals offer post-counselling if a person learns that they do have HIV or AIDS? Will doctors and nurses be expected to carry their own mobile phones with them, when not at the clinic, should their patients desire to receive (a) crisis intervention, (b) more information about the disease, and (c) opportunities and instructions for immediate treatment?
More importantly, it is not known how students would prefer to communicate with others about their STI status after they receive their results. Through a quantitative as well as a qualitative exploration of students’ survey responses, this study will help answer a) how students would prefer to receive their STI results from professionals; and b) how they would prefer to disclose their STI status to loved ones, so that friends, parents, and health professionals can more appropriately match their mode of communication with the way students would prefer them to do so.

**Rationale for Study**

Young people today have many different methods available to communicate through with their sexual partners, friends, family, and even health agencies: Talk, phone call, text, and various other digital means of communication, such as instant messaging programs, Facebook, Twitter, and Email. As the mobile phone becomes a popular mode of interpersonal communication, now more than ever, it is possible for people to choose how they would feel most comfortable communicating about a hyperpersonal topic as their STI status with people who are most important to them, their romantic partners and their parents. Up until now, traditional forms of communication about sex, condom use, and sexually transmitted infections have often failed to motivate young people to communicate with parents and partners about their sexual health. However, many young people would prefer to receive help and resources in a more confidential, trusting, and anonymous fashion from a) their parents, and, b) sexual health clinic professionals who should, but don’t always offer a quality of care that provides unsurpassed anonymity, confidentiality, and compassion (Flicker et al., 2009).

Before anyone attempts to provide information, care, and support for someone who has recently become aware of having AIDS, Herpes, or Hepatitis, they must first know how best to communicate with that person. Hyperpersonal interactions, which can occur through a non-face-to-face communication medium as a mobile phone call or text message can provide
a safe and anonymous communication space for young people to disclose highly personal information. What is needed, however, is for romantic partners, friends, parents, and doctors or nurses to know which communication method is preferred by young people who would like to know their STI status, and who would like to discuss their results should their STI status become less than favorable.

**Theoretical Overview**

This study locates itself within several areas of social research: Social support, hyperpersonal Interaction, and self-disclosure theory. For young people to be able to communicate about their sexual health with others, they need to feel competent and comfortable doing so. Hyperpersonal modes of communication can facilitate a sufficient level of comfort for self-disclosing STI status to others. Given the currently high rate of HIV/AIDS in Canada and South Africa, young people should be encouraged to communicate about their STI status with people in their lives who can provide them the greatest amount of social and emotional care and support. Most importantly, given the myriad of communication methods available today, young people should be able to communicate with their romantic partners, friends, parents, and sexual health professionals using the most trusted mode of communication that is available to them.

**Social Support**

Albert Bandura explained that people need to feel comfortable talking honestly with others about sex to be able to receive adequate care when, for example, complications from unprotected sex arise, such as becoming infected with HIV or AIDS (Bandura, 1990). Specifically, practicing safe sexual behaviours necessitates that individuals feel comfortable asking their partners, friends, and family where to obtain good information about sexual health; learning where to obtain and knowing how to use protection against AIDS and HIV; and finally, receiving adequate positive feedback and social support when adverse
consequences arise (Bandura, 1990). If young people are to be encouraged to become informed about their STI status by getting tested at health clinics, and to self-disclose their STI status to their sexual partners, they need to feel comfortable doing so using a method of communication that facilitates a secure, caring and compassionate audience from others. Communicating via mobile phone calls or text messages may create this hyper-personal communication space, where each party is able to obscure their initial reactions (such as fear, disappointment, and anger), which can be visually seen if one were to self-disclose their STI status by talking face-to-face.

**Hyperpersonal Interaction**

Walther (1996) defined a hyperpersonal interaction as “communication that surpasses normal interpersonal levels” (p. 3). First, during a hyperpersonal interaction, a sender carefully constructs a socially desirable message that allows one or both parties to create a favorable impression of them through the message. Next, it is possible to create a socially desirable message due to the ability to edit and re-edit the message before the contents or intentions are sent. Computer-mediated communication (via a computer, a mobile phone call, or text message) obscures socio-behavioural cues normally visible by the discloser or the recipient of the message when communication occurs through face-to-face interactions, and provides both parties an opportunity to focus on the content of the message rather than social norms, group dynamics, and peer status or hierarchy. Finally, when communication occurs through computer-mediated communication, the anonymity of both parties is ascertained through the very face-less nature of, for example, mobile phone calls, text messages, and other computer-mediated messaging methods as instant messaging, Facebook/MySpace, Twitter, and Email (Walther, 1996; 2007). Non-face-to-face modes of communication allow two people to communicate about a very private and personal topic as their STI status, without the fear of seeing how the other person reacts to the news of the diagnosis.
For example, individuals who become aware of having an STI may prefer to self-disclose their status to friends and family more easily and comfortably through a phone call or text message than through face-to-face interactions, primarily because a text message obscures and hides prejudgments made visible through overt facial expressions and body movements. At the very least, young people may feel more comfortable urging a current or most recent sexual partner to get tested for a sexually transmitted infection through a quick mobile phone call or a text message, and this method may benefit those who are located in two distinct locations. A newly diagnosed patient may also wish to communicate with a loved one to receive comfort, support, and advice about how they are to begin living with an STI such as HIV or AIDS, Herpes, or Hepatitis. Many sexually transmitted infections are caused by an incurable virus that (a) can be spread from person-to-person, (b) requires life-long treatment, and (c) can be managed with the support from one’s social support group (Hyde, De Lamater, & Byers, 2004). Communicating about STI status is the first step towards facilitating this supportive environment.

**Reasons for Preferring Hyperpersonal Computer-Mediated Communication**

Some researchers indicate that communicating through computer-mediated devices, such as mobile phones is advantageous, particularly when self-disclosing about personal information. Valkenburg and Peter (2009) observed that sending messages via computer software programs paradoxically enhanced the quality of existing relationships between adolescents and their friends: In dyadic interpersonal interactions, young people felt more comfortable disclosing highly intimate information to each other via non-face-to-face interactions precisely because communication was “characterized by reduced social cues” (Valkenburg & Peter, 2009, p.81). In a communication space where peer group normative beliefs were obscured, and social pressures to conform were eliminated, highly intimate communication between individuals was more possible, and permissible, than when it
occurred by talking face-to-face (Valkenburg & Peter, 2009; Walther, 2007).

Communications and impressions were enhanced precisely because computer-mediated communication facilitated (1) spontaneous intimate self-disclosure; (2), visual anonymity; and (3) low public awareness (Joinson, 2001). However, whether young people prefer to self-disclose such a highly intimate topic as one’s newly realized STI status through a computer-mediated, and faceless, communication device as a mobile phone call or text message more than through conventional face-to-face talking is undetermined, though would be expected given these findings.

**Self-Disclosure**

Self-disclosure (SD) is any communication about the self that is transmitted from a discloser to a recipient. SD differs in breadth, depth, and duration of communication: When information is more private (depth), it is communicated less often (duration), but is of a greater variety of content (breadth). Further, self-disclosure changes the interpersonal relationship between two people; for example, when a young woman Molly discloses her status to a young man Dave, Dave perceives this behaviour as positive and rewarding, which leads Dave to form a favourable impression about Molly, and influences Dave to reciprocate, or self-disclose his STI status to Molly (Cozby, 1973; Valkenburg & Peter, 2009). Further, when two parties share intimate information with each other, both the discloser and recipient value this exchange. The more intimate or personal the content is, the more likely both individuals in the conversation value the exchange. However, self-disclosure does not require, for example, that Dave reciprocates in kind (or self-discloses his STI status to Molly): It is not necessary for a romantic partner, friend, or parent to reveal equally sensitive information to someone who has self-disclosed personal and private information to them (Collins & Miller, 1994). Communicating about STI status can be a very personal and often
anxiety-provoking experience, particularly because information about STIs is unknown, and the effects on the person, if not treated properly, can have life-threatening ramifications.

**Sexually Transmitted Infections**

**HIV/AIDS**

Many regard the Human Immunodeficiency Virus (HIV) as perhaps the most serious type of sexually transmitted infections. HIV reduces the effectiveness of a person’s immune system, the autonomic mechanism that fights off infections and diseases from the environment. When a person becomes infected with the HIV virus, and subsequently by an infection or other virus from the environment due to a weakened immune system, the individual with HIV is said to have developed AIDS, or Acquired Immune Deficiency Syndrome. A person becomes infected with the HIV virus through the exchange of bodily fluids, such as blood, semen, breast milk, and vaginal fluid, which often occurs through sexual intercourse, blood transfusions, and through mother-to-infant feeding. However, the HIV virus cannot be spread by kissing, touching, or sharing food. There are no overt signs that a person has HIV, other than the flu, or at the later stages of HIV, when a person develops lesions on the body, called Kaposi’s sarcoma. Currently, there are no known cures for HIV, but the most effective form of protection against the virus is consistent condom use, and communicating to sexual partners about having HIV or AIDS (Hyde, J., De Lamater, J. & Byers, 2004).

In Canada, women account for almost one third of people living with HIV or AIDS, whereas men account for more than two-thirds of the population. However, only 32% of 15-49 year old Canadians were tested for the HIV virus (EKOS, 2006). Given the low rate of testing among emerging adults in Canada, there is a significant need for students to (a) practice safe sexual practices; (b) learn how to use condoms; and (c) communicate about sex, sexuality, and their STI status with their romantic partners.
Of the global estimate, 68,000 Canadians are living with HIV (UNAIDS, 2010; UNAIDS Report on the Global AIDS Epidemic, 2010). In South Africa, where the highest rate of HIV/AIDS exists, 22.5 million people lived with the virus in 2009. Of these, 1.3 million people have died of illnesses related to HIV or AIDS, or, 72% of the total of 1.8 million people who have died of the illness around the world (UNAIDS, 2010). More so than in any other part of the world, young people in South Africa need to communicate openly and honestly with their current or most recent sexual partners if they suspect they may be infected with the HIV virus; otherwise, the spread of HIV or AIDS will increase dramatically, and the amount of deaths related to the HIV virus will continue to be an international epidemic.

**Herpes**

Genital herpes, or the Herpes Simplex Virus subtype 2 (HSV-2), is like HIV, a virus that can be transmitted from one person to another through sexual contact. The Herpes virus causes painful cold sores and fever blisters on the genitals of both men and women. The HSV-1 subtype of Herpes, which often manifests on or around the mouth, can be transmitted from person to person through oral-sexual contact. Like HIV, there is no cure for HSV-1 or HSV-2, and most people can spread the disease to others even when they show no overt symptoms, or blisters, on their body. In fact, most people who have the HSV-2 virus are asymptomatic, and they may never have an outbreak of herpes in their life, but can still transmit the virus to others (Hyde, De Lamater, & Byers, 2004).

Genital herpes are particularly problematic, because (a) lesions and sores can reoccur for many reasons, such as when a person feels constantly tired, receives too much sun exposure, and becomes stressed. Further, having the HSV-2 virus increases susceptibility to HIV, the virus that leads to AIDS (Abu-Raddad et al., 2008). The majority of people with Herpes do not die due to complications from the virus, as do people living with HIV in remote areas of South Africa. However, HSV-2 has been attributed to over thirty percent of
new HIV infections in South Africa, significantly more than from other curable STIs, such as syphilis, gonorrhea and chlamydia combined (Freeman, et al., 2007).

**Hepatitis**

Like the previous two viruses, viral Hepatitis is transmitted through blood, semen, and vaginal fluid. However, unlike HIV, Hepatitis B, which is one of the 5 subtypes of Hepatitis that is transmitted through intercourse, can also be spread through saliva. People can become vaccinated against acquiring Hepatitis B. Further, once a person becomes infected with Hepatitis B, like the other two STIs described above, an individual may feel tired, feel pain in the abdomen (this is more so for HSV-2 and Hepatitis B infections than for HIV), and specifically to Hepatitis B, can develop serious complications to the liver. However, about 90% of people who have acquired Hepatitis B and develop immunity to the virus; the other 10% remain carriers of the virus, and spread it to other people before they become fully cured. (Hyde, De Lamater, & Byers, 2004). This is not the case for people living with the Herpes virus, nor is it for people living with HIV or AIDS.

Given the high prevalence rates of HIV and AIDS in South Africa (UNAIDS, 2010), as well as in Canada (EKOS, 2006), young students should (a) practice safe sexual practices; (b) learn how to use condoms; (c) communicate about sex, sexuality, and their STI status with current or most recent sexual partners; and (d) become aware of their STI status. Ultimately, making healthy choices about sexual health, and communicating with others about safeguarding against the spread of HIV, AIDS, and other sexually transmitted infections necessitates that people are able to communicate about sex, condoms, and the consequences that occur, especially after a person does become infected. Moreover, individuals who know they have a sexually transmitted infection, either because of overt physical symptoms, or after receiving results of their STI tests, should feel safe and comfortable to seek help, either from their current or most recent romantic partners, their
friends, parents, or sexual health professionals. Without communication, there is no hope of people living with these infections to receive proper treatment, and for reducing the spread of HIV/AIDS, Herpes, or Hepatitis to others.

**Computer-Mediated Communication**

**Mobile Phones**

Cell phones or mobile phones are portable telephones, which allow two or three people to broadcast their voices to each other simultaneously when not in the same location. Mobile phones facilitate voice-only communication; recently, however, some mobile phones have become equipped with digital video cameras, which allow two people to see each other as they speak. As this technology has only recently become available in North America (as of December 2010; see apple.com/iPhone), most mobile phone communication devices only allow voices to be transmitted. For this reason, the term “mobile phone calls” will specifically refer to voice-only communications between two parties.

**Text Messaging**

Similarly, mobile phones can allow two people to communicate with each other through simple text messages, or texts, whereby one person sends a message of not more than 160-240 characters in length. Messages can be made up of individual letters, words, numbers, punctuation marks, or symbols (Bell, 2005). In North America, there is no limit as to how many texts can be sent or received, particularly when individuals have subscribed to an unlimited texting package from their mobile phone carrier or service provider. Text messages allow for a quick and convenient method of communication when one or both parties decides they do not want to communicate through voice-only or face-to-face talking, but still desire to transmit their intended message to another person.
**Instant Messaging Programs**

Instant messaging refers to communication that occurs through computer-mediated software programs as Microsoft Instant Messenger (MSN), and America Online Messenger (AOL). These software programs allow one, two, or a group of people to send messages (of any length), audio clips, and even video feeds through the Internet to others. However, in this study, “Instant Messaging” refers to communication between two parties only. However, while some students may believe that Instant Messaging refers to a similarly named instant messaging program used on mobile phones, BlackBerry Messenger, the addition of “AOL/MSN” on the survey questions clearly differentiates the former from the latter, and students who completed the survey in this study would understand the difference between the two modes of communication. Further, qualitative responses from students in this study corroborate this understanding.

**Facebook and MySpace**

Social networking websites as Facebook and MySpace allow users to create virtual profiles of themselves, and present profiles of how they want others to see how their lives develop. For example, Facebook allows a user to broadcast a user-profile webpage, with information about their name, birthday, photographs of, for example, places they travelled, and who their friends and family are, can be found on a user’s Facebook page. These websites also allow users to send messages to other Facebook or MySpace “friends” by writing directly on the other user’s profile page or “wall”. These websites also allow users to send private messages to each other, which are hidden from any other parties (Facebok.com; MySpace.com). Should students prefer to self-disclose their STI status on Facebook, they would be able to do so through either modes of communication: Their mobile phones, or their personal computers, which would make Facebook or MySpace a popular face-less mode of communication for students to self-disclose their status to their partners, friends, and family.
Twitter

Twitter relies on a similar platform of communication as text messaging or SMS texting. However, instead of only one recipient receiving a single message, multiple users can subscribes to an individual’s stream of messages, or “follow” a person on Twitter to receive simple text messages from that individual. Texts can be sent through Twitter’s website, through a person’s mobile phone, and can be sent through the integration with other websites as Facebook. These short messages (140-character limit) can be received by (a) anyone who subscribes to a particular individual’s Twitter feed; or (b) only by one individual who becomes privy to a direct private message, similar to receiving an SMS text message. See Twitter.com for more information. This mode of communication can be popular among adolescents who would need to simultaneously distribute a single text message to multiple peer group friends. However, this method may not be popular among individuals who would question the ability of a third-party (Twitter.com) to safeguard their personal and private information. In any event, for individuals who wish to inform multiple partners about their STI status, this may be a popular form of communication to do so through.

E-mail

Email, or electronic mail, allows people to send and receive electronic letters through the Internet. Unlike conventional letters that are sent through the postal service, emails arrive almost instantaneously after they have been sent. Further, emails can be easily organized and saved for future use, which makes email a convenient mode communication for people who wish to save and store important information to read at a future time. Like the former three modes of communication, many mobile phones have not been fitted with email messaging services. However, individuals who do have the ability to send and receive emails through their mobile phones would be privy to the same speed of service of those who would have unlimited access to their emails through their University accounts. In the event that students
do not have access to either a) a mobile phone equipped with email functionality, and b) access to a computer that is equipped with Internet access, this mode of communication may not be preferred by those who have access to a more ubiquitously available form of communication, as mobile phone calls or text messages. For individuals who do have adequate access to their email accounts, this may be a convenient way to inform others about their STI status, as well as to receive notification and periodic updates about their STI results from their health clinics.

Overview of the Thesis

This first chapter of the thesis, Introduction, has included explanations of the various modes of communication discussed throughout this thesis, as well an explanation of all definitions therein. To begin, this chapter offered a theoretical overview about a) social support, b) hyperpersonal interactions, and b) the theory of self-disclosure. Further, terms and definitions have highlighted the main topics discussed throughout this thesis.

The second chapter, Review of the Literature, provides the reader with an overview of the previous studies about mobile phone communication as they relate to young adults, self-disclosure, and sexually transmitted infections.

Chapter 3, Methods outlines the specific methods and instruments that were implemented throughout the data collection process, both in Canada and in South Africa. This section is separated into descriptions about the data collection at a) McGill University, Montreal, and b) University of Kwa-Zulu Natal, Pinetown, South Africa. The Methods section also includes a description about the survey that I created, how it was formed and modified, and the two different versions used in this study. Further, Chapter 3 includes an explanation about how ethical consent was sought, the four types of quantitative analyses used to determine how students preferred various modes of communication, as well as an
explanation about the qualitative analysis that will inform why students preferred a particular mode of communication.

Chapter 4, Results, includes a summary of quantitative results, the significant findings, as well as a thorough review of the specific significant and non-significant associations. Analyses are separated into categories as a) Participants from McGill; b) Participants from UZKN, c) All Participants Combined Into One Sample, and d) Differences Associated by Schools. Further, each section is divided into three different analyses of preferences for: a) All Modes of Communication; b) Face-to-face vs. Mobile Phone Use (Calling and Texting); and, c) Face-to-Face vs. All Digital Modes of Communication. Each subsection is divided to reflect results from each target of self-disclosure: Current or most recent sexual partner; close friend; parent; and, doctor or nurse. Each subsection also includes results for how students would prefer to receive their STI test results, and new STI information important to them. Finally, each section (McGill, UKZN, All Participants, Associations by Schools) includes a summary of significant findings. At the end of the chapter, the reader can find a Summary of All Quantitative Findings, as well as a Summary of All Significant Associations. Significant associations are accompanied by figures throughout this chapter.

Chapter 5, Qualitative Results, includes a description of how students’ written responses to various questions were organized, coded, and analyzed. This chapter also includes specific quotes from students to underscore why students preferred a particular method of communication in relation to (1) preferences for texting: male versus female students; (2) self-disclosing STI status to current or most recent sexual partner; (3) self-disclosing STI status to close friends; (4) self-disclosing STI status to parents; (5), receiving results of STI tests; and (6) receiving new STI treatment information.
The final chapter, Chapter Six, *Discussion*, includes a brief summary of the results, and their implications for hyperpersonal communication interaction. Finally, this chapter includes a debriefing about some of the limitations of the study, the significance of the findings and implications and recommendations for future researchers who wish to study how various modes of communication can be used to help young people communicate about their sexual health in a world that is slowly becoming dominated by texts and messages in favor of conventional face-to-face talking interactions.
Chapter 2: Review of the Literature

Introduction

In this chapter, I discuss the various studies that have recently focused on mobile phone communication in general, and how these studies relate to people communicating with their peers as well as their parents about their sexual health. I discuss self-disclosure about STI status, why individuals would prefer to self-disclose their status through their mobile phones, and what previous studies have found when people have self-disclosed their status to romantic partners and parents through face-to-face interactions.

Individuals who have recently been diagnosed with having a sexually transmitted infection or disease can become fearful, embarrassed, and anxious about their results, particularly if they worry about how their friends and family will react to their status (Simoni, Mason, Ruiz, Reed, & Richardson, 1995; Petrak, Doyle, Smith, Skinner, & Hedge, 2001). Without the loving and unconditional support of a romantic partner, of friends, family, and supportive counseling from sexual health professionals, individuals may decide to hide their sexual health status, which could lead to an increase in anxiety, and spreading of such STIs as HIV/AIDS, Herpes, or Hepatitis to current or subsequent sexual partners.

The most significant reasons for not accessing testing services, as reported by adolescents in a major Canadian city, was for fear of others’ reactions when finding out that they may have an STI, and due to the lack of privacy or anonymity at testing facilities (Flicker et al., 2009). Communicating about STI status to current or most recent sexual partners, friends, parents, and sexual health professionals could be beneficial to romantic partners, as well as to those who are infected. However, before young people can be invited to disclose their STI status, they need to feel assured that they can (1) receive their results and (2) share them with others in a private fashion, which if not done with care, can be very frightening, particularly for young students who have never been tested (EKOS, 2006). For
this reason, a number of sexual health intervention programs have adopted the use of mobile phones to send phone calls and text messages to connect with people in a virtual manner: People who are not able to access testing facilities, particularly in South Africa, are now able to receive information about sex, and disclose details about their sexual behaviours in a quick, reliable, anonymous, yet hyperpersonal fashion through mobile phone calls and text messages (Lim, Hocking, Hellard, & Aitken, 2008; Joinson, 2001).

**Reasons for Preferring to Disclose Through Mobile Phone Communication**

In their 2005 study, Reid and Reid studied adolescents’ preference for using mobile phones to interact with peer friends. Consistent with Walther’s (1996) explanation about hyperpersonal interaction, students who preferred to text were more likely than voice callers to pay attention to the quality of their texts (spelling, punctuation), and took advantage of the available limit of characters for each of their texts, suggesting that those who texted more often made every effort to communicate the full meaning of their intended messages to others. More importantly, they had formed deeper personal relationships with others through text circles, or “small, tightly-knit networks of textmates” (p.116). They also preferred texting as a true form of self-disclosure, preferred texting to talking face-to-face, or phone calls, and felt that texting afforded them a level of intimacy unavailable through other communication methods. However, students who preferred texting to phone calls also felt more socially anxious in traditional peer group interactions, where face-to-face interactions were unavoidable (Reid & Reid 2005). The results of this study highlight the reasoning inherent in Cozby’s (1973) self-disclosure theory, whereby texting can be viewed as a method of dyadic self-disclosure intended to strengthen pre-existing relationships, as well as facilitate the formation of new friendships through the process of intimate self-disclose.

Text messaging can be an effective method of communication for individuals who would not otherwise feel comfortable interacting with people in a shared physical space, such
as young people who may feel apprehensive about disclosing the consequences of their sexual behaviours to their friends. In their 2007 study, Reid and Reid compared students' level of social anxiety and loneliness to a) their mobile phone use habits (voice calls and text messaging), and b) their preferred mode of communication. Consistent with their previous study, one half of the sample preferred texting than talking on the phone. However, unlike their initial (2005) study, they found that individuals who felt more lonely preferred to communicate by phone calls than text messages, but also sent as many text messages as did non-lonely individuals. Still, anxious students did prefer text messaging to avoid socially anxious encounters with others (2005; 2007). However, the more anxious a person was, the less likely they were to use a mobile phone in any way (Reid & Reid, 2007).

Given these findings, communicating to a romantic partner, a close friend, or even a parent about such a highly anxious topic as STI status would be more likely to occur either through text messaging or through talking face-to-face than through mobile phone calls or other digital modes of communication. However, individuals who feel lonely when receiving their STI results may prefer to text with a parent or a partner, rather than talk face-to-face with them. Conversely, if young people find the act of self-disclosing their STI status to be immensely anxiety-provoking, they may prefer to abandon mobile phone communications, and prefer to self-disclose their STI status through conventional face-to-face talking rather than through any computer-mediated communications.

Borae and Park (2010) found similar results to Reid and Reid’s (2005 & 2007) studies. Specifically, desiring affection and inclusion with others was significantly related to mobile phone use in general, and was a stronger predictor of texting than of making phone calls. However, participants who desired to be excluded from social engagements also preferred to communicate through mobile phones. Therefore, it appears that texting can strengthen interpersonal relationships for individuals who desire to be included within group
interactions (Borae & Park, 2010), but individuals who feel a great amount of anxiety can also prefer neither form of mobile-phone mediated communications, particularly when the intended message brings a significant amount of anxiety.

Communication Preferences and Gender Differences

Gender differences abound among users of mobile phones. For instance, Faulkner and Culwin (2005) studied students’ (16-20 year olds’) preferences for, and frequency of using various modes of communication: Mobile phones, emails, faxes, letters, and face-to-face interactions. In their study, female students preferred to use any form of communication more often than did male students, and female students specifically, as well as younger students sent and received more text messages than did male students. Male students preferred to use the mobile phone calling for communication more so than text messaging. More importantly, only when students were asked to imagine asking someone on a first date (an anxiety-provoking event) did male students prefer to text their intentions rather than calling or emailing the other party, corroborating earlier findings (Faulkner & Culwin, 2005; Reid & Reid, 2005, 2007) that a certain level of anxiety and apprehension within interpersonal interactions could influence some people, particularly male students, to prefer to text rather than talk face-to-face with others. However, no underlying reasons were found in this study to explain for these gender differences (Faulkner & Culwin, 2005), because students did not indicate why they preferred texting rather than talking as a form of communication that facilitated personal and private self-disclosure.

The mobile phone as a communication device is filling a gap in interpersonal communication among people who may need to disclose highly intimate information to others, but would rather avoid some of the negative overt behavioural reactions that can be associated when receiving devastating news, such as signs of disappointment and anger.
However, to date, there have been few studies that highlight the social circumstances underlying mobile phone use within a sexual health-related context (Ling, 2008).

**Disclosing STI Status to Romantic Partners and Parents**

In surveying women living with HIV, Simoni et al. (1995) found that current sexual partners reacted negatively when their partners disclosed to them about their newly realized HIV/AID status, while the women’s parents reacted unexpectedly positive to the news. The researchers speculated that because interpersonal relations were generally more intimate and supportive within family units than were between sexual partners, one way in which families avoided upsetting the dominant positive atmosphere was by being supportive and comforting. However, there was a clear difference in how the women living with HIV/AIDS believed their family would react to their news, and how the family actually reacted (Simoni et al., 1995). Perhaps it is the apprehension of disclosing highly intimate and personal information that brings anxiety to people, rather than the actual overt reactions displayed by others.

Petrak et al. (2001) found similar results among male and female students: When asked why they chose not to disclose their HIV or AIDS status to friends or family, the dominant reasons were that students wanted to ensure others not worry, fearing that the information would cause mental distress for others, and lastly, not wanting to become stigmatized or discriminated against by those closest to them. Strangely, some men felt more comfortable disclosing to friends and family that they were diagnosed with having a different disease (cancer) than having AIDS. However, so long as individuals believed that their relationships with others were cohesive, and believed others were able to offer support and understanding, there was a greater likelihood that they would be willingly to self-disclose their HIV status to others (Petrak et al., 2001).
Summary

Text messaging can be a great way to communicate between people who desire to actively build close interpersonal relations with others (Reid & Reid, 2005; Borae and Park, 2010), but also for those who may feel anxious, lonely, and who wish to avoid face-to-face interactions with others (Reid & Reid, 2005, 2007). However, texting is not a great method of communication when the nature of discussion is highly intimate and private (Reid & Reid, 2005, 2007). If individuals perceive the upcoming interaction to be overwhelming, they would more likely prefer to abandon mobile phone communication altogether, and to talk face-to-face (Reid & Reid, 2007). Further, female students would be more likely to communicate with their peer group friends by texting them, whereas male students would prefer to phone call their mates, but only if the nature of the discussion is not too anxiety-provoking (Faulkner & Culwin, 2010). So far, it is unclear whether self-disclosure of STI status would cause young people a great amount of anxiety for them to prefer talking face-to-face with their current romantic partners, their friends, or parents, or whether they would prefer to text or phone them.

Future Research

If individuals can foresee the reactions of others to be positive, then those who desire to self-disclose their HIV status to their current or previous sexual partners, close friends, and parents would be more likely to do so by texting than by talking face-to-face with those whom they foresee a negative reaction (Borae & Park, 2010). However, as of yet, there is no data to support this hypothesis, particularly as it relates to the study of sexually transmitted infections, and in particular, of HIV and AIDS.

What is missing from the current literature is an analysis of how this quickly emerging form of mobile communication can enable young students to self-disclose to others about their concerns of being infected with an STI. Only after examining how mobile
communication is redefining the boundaries of self-disclosure about sexually transmitted infections can future researchers endorse mobile phone technology as a tool to facilitates discussions about sex, the use of contraception, and the current state of the HIV/AIDS epidemic, not only in Africa, but all over the world. So long as students feel that have an active relationship with the person whom they are disclosing to, and that disclosing their newly realized STI status does not bring a significant amount of anxiety, text messaging is likely to be the preferred mode of communication by students to self-disclose their STI status. However, if doing so brings about a great deal of anxiety, partners, friends, and parents should be prepared to communicate with these individuals by talking, rather than phoning, texting, or instant messaging them about their health concerns. In any event, the best way to determine how students would prefer to communicate with their partners, close friends, and parents about their STI status is to ask them. Up until now, no researchers, to my knowledge, have explicitly asked students how they would prefer to a) receive their STI test results, and b) how they would prefer to communicate about their results with others, so that they may receive adequate care and support from loved ones. With the ever-expanding modes of communication available to students, there could be different ways in which they would prefer to communicate with different people. Therefore, the following study allows students to answer these questions through a quantitative, forced-choice questionnaire, as well as a qualitative, open-ended dialogue format. From these results, partners, friends, parents, and doctors and nurses can better equip themselves with the way young people would prefer to communicate with them. Ultimately, that is the goal: To talk or text to tell.
Chapter 3: Methods

Introduction

Through surveying second-year university students in Canada and South African, the goal of this study was to ask students to imagine that they recently received an STI/STD test result from their health clinic; if they wanted to, (1) how would they prefer to disclose their status to (a) their current or most recent sexual partner(s), (b) close friend(s), and their (c) parent(s)/caregiver(s). Further, (2) how would they prefer to receive their results from a health clinic; and (3) to receive information about new treatment options for a sexually transmitted infection that is important for them to know about.

For each question, students were invited to choose a preferred mode of receiving their STI test results, and to self-disclose their STI status by: (1) Talking face-to-face; (2) Mobile phone call; (3) SMS text message; (4) Instant message (MSN, AOL); (5) Facebook/MySpace; (6) Twitter; and, (7) Email. Under each question, students were also asked to write why they preferred a particular mode of communication when disclosing to each target person.

Ultimately, the first purpose of this study was to determine how current or recent sexual partners, close friends, and parents can tailor the way they communicate with young people who have recently learned that they have a life-threatening sexually transmitted infection. The second purpose of this study was to determine whether sexual health clinics should alter the way they deliver STI results and sexual health information to young individuals who would prefer to access resources using a safer and more confidential setting than is currently available to them. Finally, this study was conducted to inform sexual health researchers about how future health programs can be ameliorated so that they can deliver sexual health information in a way that invites emerging adults (19-24 year olds) to become active participants in the pursuit of knowledge about their own sexual health.
Data collection at McGill University, Montreal

Participants

One hundred and eighty three (183) students at McGill University completed the survey (Appendix A): Two sections or classes of students from a second-year undergraduate course within the faculty of education participated in this study. The sample consisted of 31 male participants (16.9%), and 152 female participants (83.1%). The majority of students (55%) self-identified as “Anglophone”, 10% as “Francophone”, and 25% as both, or as bilingual. Students were allowed to choose more than one way to describe themselves; however, there was some overlap in identifying culture or demographic.

Students’ average or mean age was 20.57 years (SD = 3.237), with most students at 19 years. The average age of male students was 21.42 (SD = 3.31) years, and 20.40 (SD = 3.20) years for female students. There was not a significant difference in age between male and female participants, t(181) = 1.60, p < ns. No age differences were found between the two sections, which were comprised of 93 (50.8%) of students in the first section (38.8% female participants and 12.0% male students), and 90 (49.2%) of students in the second section (44.3% female students, and 4.9% male participants).

Ethical Consent

I received ethical consent from McGill’s Research Ethics Boards (REB-II) on June of 2010. The application for ethical consent included details about conducting the study at McGill, as well as at The University of Kwa-Zulu Natal, South Africa.

Procedure

As soon as first semester classes resumed in September 2010, I made initial communication through email with an instructor from the Faculty of Education at McGill University. The instructor invited me to his classroom two weeks after agreement, to distribute the survey at the beginning of the lesson. Students were made aware of the study
prior to the survey-taking date. On the date of the survey, I made a two-minute presentation about the study to the class, which consisted of reading the consent form aloud. The professor and I distributed the survey to students. The total time taken to distribute, complete, and collect the survey was twenty minutes in duration. Caution had been taken to ensure students' confidentiality and anonymity was respected: Students were told that their consent was completely voluntary, that they did not have to participate, and that they could work on other assignments during that time. However, all students chose to participate. Once they completed the survey, they were asked to place them into a brown envelope, which was sealed after every student’s survey was returned. Once all students had completed the survey, 3 Apple © iPod Shuffles (approximate value per item, $70) were raffled off, at which point, students were thanked for their time and participation.

As I was leaving the classroom, the teaching assistant associated with this particular course invited me to distribute the very same survey to a different section of students enrolled in the same course that was held two days later. As occurred during the first survey, students in the second section completed the survey within 20-25 minutes, and three students received one Apple © iPod shuffles at the end of the survey writing time.

Data collection at The University of Kwa-Zulu Natal, Pinetown, South Africa

Participants

One hundred and twenty (120) students participated in the survey (Appendix B): Students were enrolled in a second-year undergraduate course within the faculty of education at The University of Kwa-Zulu Natal, South Africa. The sample consisted of 42 male students (35.6%), and 76 female students (64.4%), with an average or mean age of 21.19 years ($SD = 2.871$), with most students being 21 years old. The average age of male students was 21.12 years ($SD = 2.54$), and 21.24 ($SD = 3.09$) for female students. There was no significant difference in age between both sexes, $t(116) = -.21, p = ns$. The majority of
students (33%) self-identified as “African”; (22%) identified as “Black”; and, (33%) as both “African and Black”.

**Ethical Consent**

In June of 2010, a colleague of my advisor at UKZN, Ms. Campbell, a professor at UKZN, informed me that she would be able to distribute my survey to her students during school hours. As soon as I was made aware of this, I contacted the ethics review board at UKZN, and inquired about receiving ethical approval to conduct my study at UKZN. In late August, I received notification via email (see Appendix D) that I had received approval by the board.

**Procedure**

Unlike the McGill sample, I was not present at UKZN when students completed the survey. For this reason, I relied on the support of Suzette Hattingh, who is the administrator at the Centre for Visual Methodologies and Social Change at UKZN, to assemble the survey packages. Mrs. Hattingh was instrumental in printing, combining, and coordinating with me during the entire process, from receiving the electronic version of the survey through Email, to sending the completed surveys to me in Montreal. Ms. Campbell distributed the surveys to her students, and also communicated with me throughout the entire data collection process. Compensation to students at UKZN was provided at the discretion of Ms. Campbell. The completed surveys were couriered by way of Federal Express from South Africa to Montreal, Canada (Approximate cost of shipping, $250).

**The Instrument**

**Paper and Pencil Survey**

One 3-part survey (Appendix A, B) was distributed to both samples. Other than the demographic indices, which differed by the choices available on the question of “Which cultural group do you identify with” to accommodate the socio-historical differences between
students at McGill and UKZN. However, both samples answered the same sets of questions. Students at McGill University completed the survey found in Appendix A, and students at UKZN completed the survey found in Appendix B.

**Preference for self-disclosing STI status.** Part one of the survey asked students to “Imagine you recently became aware that you have a sexually transmitted infection, such as HIV/AIDS, Herpes, Hepatitis. If you wanted to receive information, emotional support, and guidance from others, how would you prefer to discuss your test results with them?” This first part of the survey was separated into 4 sub-sections, allowing students to answer in relation to disclosing results with a specific target: “A current or most recent sexual partner(s); a close friend(s); parent(s)/caregiver(s); and, a doctor/ or nurse”. For each sub-question asked, students were to choose only one preferred method of communication through which they would discuss their results with the target: (1) Talking Face-to-face; (2) Mobile phone call, (3) SMS text message; (4) Instant message (MSN, AOL), (5) Facebook/MySpace; (6) Twitter; and (7) Email. To understand why students would prefer a particular method of communication when disclosing to that particular person, a blank box was provided under each question, with the instructions “Briefly explain below why you picked your choice above”.

**Preference for receiving test results and sexual health information.** Part two of the survey asked students to “Imagine you recently had a test done that detects if you do or do not have a sexually transmitted infection. How would you prefer that your doctor/nurse/health clinic gives you your results (positive or negative)?”. Like part one of the survey, students were invited to “briefly explain why you prefer this method”. Further, students were asked to indicate “How would you prefer to receive information from your doctor/nurse/health clinic about new treatment options for sexually transmitted diseases/infections that are important for you to know about”? Again, students were asked to
“briefly explain why they preferred a particular communication method to receive new information”.

The third part of the survey asked students to indicate, on a yes-no scale, (a) Do you use a mobile phone/cell phone on a daily basis; (b) if yes, at what age did you start to do so? (c) Do you use a computer on a daily basis? The fourth part of the survey asked students to indicate their demographic information, such as (a) your age; (b) sex; (c) and cultural group you identify with.

**Development of the Survey**

As there have not been any studies to date that have asked students to answer questions to help determine how young people would prefer to self-disclose their STI status to others, the survey distributed to students in this study was created and developed by me. The survey went through a number of revisions; specifically, I received initial feedback about the first version of the survey from academic peers at the Congress of Social Sciences and Humanities Conference, which was held in May of 2010 at Concordia University. During a roundtable discussion where I discussed some of the survey questions I created, one student suggested that I include other modes of digital communication, such as Instant Messaging, Facebook/MySpace, and Twitter. Following the first draft of the survey, four graduate students, and two non-students working in the fields of architecture and human resources completed the first draft of the survey. Everyone who participated in the pilot of the survey was proficient in written and spoken English. Each person was asked to complete the survey, and to write comments about the content validity of the questions, or, whether they felt the questions were actually answering what I wanted to determine from their responses. From their feedback, I eliminated the “other-please fill in the blank” category, and added the “Email” category to the other three modes of communication I had initially suggested (Talking Face-to-Face, Mobile Phone Call, and SMS Test Message).
After the first version of the survey was formed, I was informed from a number of networks and contacts that it would also be possible to distribute the survey to students in a South African University. For this, I worked with the lecturer Ms. Bridget Campbell, who commented on any questions that should be rewritten in a simpler language. After three revisions of changes, the final survey (Appendix B) was formed. Both surveys are written using the same words, other than the demographic choices.

**Post-Data Collection and Organization of Completed Surveys**

Each survey package was assigned a five-digit code, which allowed me to associate students’ responses with their consent forms. As soon as I entered responses from the surveys into a statistical program database, I separated the consent form from the rest of the survey package to ensure students’ anonymity. The survey identification number was also used in the selection of participants who won one the compensation prizes. No deception methods were used during this study. In fact, the consent form explained the true nature of the research project (See page one in appendices A and B for the consent form).

**Analysis**

Given that there is very little research that combines the study of mobile phone communication with sexual health education (Lim et al., 2008), no empirically replicated survey was available to determine students' preferred mode of communication about sex with respect to disclosing their STI status (if they had HIV/AIDS, Herpes, or Hepatitis) to others. For this reason, I employed a quantitative as well as a qualitative research methods approach to determine (a) which methods of communication students felt most comfortable disclosing their STI status to their current or most recent sexual partner, their close friends, parents, and doctor/nurse; and, (b) why they preferred a particular method of communication to self-disclose through.
Types of Quantitative Analyses

T-Tests (t)

Independent samples t-tests were conducted to determine mean (average) age differences between male and female students, age of first use of mobile phones, and whether McGill students’ responses differed from UKZN students’ responses.

Chi Square (x²)

A series of Pearson categorical Chi square correlation analyses were performed to determine whether associations between a number of variables existed: Specifically, this analysis allowed for a simple and elegant summation of students’ choices for each category of questions asked. For example, the question “did more female students than male students prefer to disclose their STI status by talking face-to-face with their current sexual partners” was summated through a 2 (gender)-by-7 (preferred mode of communication) category matrix. However, researchers who use Chi square analyses to determine whether an association exists between two variables must rely on certain assumptions of the collected data. Specifically, to determine whether an association between two variables occurs more often than it would by chance alone, the results must conform to 4 stipulations: (1) the results of this test would not be normally distrusted, so they cannot be compared to any other results from other sample populations; (2) each person/participant could only choose one of the several available choices for each question; (3) the size of the sample must have been sufficiently large enough, where no more than 20% (one out of the five) of the expected cell frequencies could be below five. Finally, (4), no expected frequencies should be below one (Field, 2009). In the event that these assumptions are were not met, the analysis were reconfigured by collapsing the cells (instead of having seven choices of communication, I combined them to form a 2x2 matrix; i.e., all two modes of mobile communication compared to face-to-face talking; or, all seven digital modes of communication combined into one
category compared to one face-to-face communication category. While a Chi square test of
association indicated whether a significant associations between variables existed (did female
students prefer to self-disclose through their mobile phones more frequently than through
talking face-to-face), as would be indicated by a p-value less than .05, this test did not
indicate the effect size or strength of association.

**Cramer’s (V) Strength of Associations**

To determine the strength of associations between two variables, or, whether an
association as in fact a strong one, such that, one variable could reliably predict or be said to
be associated more often than by chance alone to a second variable, Cramer's V tests were
performed: This test provided a value that ranged from 0, indicating a weak association, to 1,
indicating a strong association between two categorical variables (Field, 2009).

**Odds Ratios**

Finally, odds ratios were also conducted as a measure of strength of association where
significant Chi square associations were significant, at or below the .05 and .01 levels. Odds
ratio analyses were conducted to determine (1) how a preference in communication differed
as a function of (a) gender and (b) school; (2) differed in relation to the target, or, who
students would communicate with: (a) sexual partner, (b) friends, (c) parents, and (c) doctors;
and, 3) how students preferred to (a) receive their STI results from health clinics, and (b)
receive new information about an STI that is important to them (Field, 2009).

**Qualitative Explorations**

Under each question, students were asked to write why they preferred a particular
mode of communication when disclosing and receiving information. This qualitative-
response portion of the survey-enriched students’ quantitatively based responses, and will
allow readers of this thesis to understand, not only how young adults preferred to
communicate about their sexual health, but also why they preferred a particular mode of
communication. For example, each question had a blank box, with the description “Briefly explain why you picked your choice above”. Students who provided their own words to their choices actively participated in the study, and interacted with the survey, more so than would have occurred if they were simply asked to select one choice from list of modes of communication provided. Further, students were able to elaborate on their responses and describe their intentions, or not, about disclosing their STI status to others. I believe students’ written responses to each question, which can be found in the discussion section of this thesis, more accurately represented their true thoughts and feelings about how, and why, they preferred to self-disclose and receive their STI status.

Summary

In this chapter, I have described the samples of 303 students at two universities who participated in this study: Students at McGill University, and at the University of Kwa-Zulu Natal. I described the survey used in this study, and how and why the survey was developed and formed for each sample of students. Further, I described the analytical methods that were used to determine quantitatively, how students preferred to self-disclose their STI status, and qualitatively, why they preferred a particular mode of communication. I also provided an overview of the statistical procedures used during the analysis of the data, and how I organized and coded the written responses. In the next chapter, Results, I consider the findings.

Chapter 4: Results

Introduction

This chapter includes a summary of all quantitative results, the significant findings, as well as a thorough review of the specific significant and non-significant associations. Analyses are separated into categories as a) Participants from McGill; b) Participants from UZKN, c) All Participants Combined Into One Sample, and d) Differences Associated by
Schools. Further, each section is divided into three different analyses of preferences for: a) All Modes of Communication; b) Face-to-face vs. Mobile Phone Use (Calling and Texting); and c) Face-to-Face vs. All Digital Modes of Communication. Each analysis subsection is divided to reflect results from each target of self-disclosure: Current or most recent sexual partner; close friend; parent; and doctor or nurse. Each subsection also includes results for how students would prefer to receive their STI test results, and new STI information important to them. Finally, each section (McGill, UKZN, All Participants, Associations by Schools) includes a summary of significant findings. At the end of the chapter, the reader can find a Summary of All Quantitative Findings, as well as a Summary of All Significant Associations. Significant associations are accompanied by figures throughout this chapter.

**Participants from McGill University**

There was a significant association between section of students and gender of students (1), \( x^2(1, N = 183) = 6.06, p = .01; \) Cramer’s \( V = .18, \) a medium strength of association, where zero shows a weak association, and one shows a strong association. The odds ratio shows there were 2.8 times more male students in the first section than the second section.

*Figure 1.* There were almost three times more male students in the first section than in the second section.
Earliest Age of Mobile Phone Use

The earliest age at which students first used a mobile phone, as indicated by students at McGill, was at age eight. All students first used a mobile phone, on average, was at 15.39 years ($SD = 2.584$). The mode, or age at which most students in one age category indicated first using mobile phone use occurred at 16 years of age. There was a significant difference in gender and age of first use $t(164) = 3.03, p = .00$, such that, the average first age of mobile phone use for male students was 16.83 years ($SD = 2.85$), and 15.15 years ($SD = 2.46$) for female students: Female students began using a mobile phone at a significantly younger age than did male students.

Use of a Mobile Phone on a Daily Basis

One hundred and sixty four participants (89.6%) indicated that they used a mobile phone on a daily basis, while 19 (10.4%) did not use one daily. Of male students, 24 (77.4%) did, while 7 (22.6%) did not. Of female students, 140 (92.1%) did, while 7.9% did not. Gender was related to Use of a Mobile Phone on a Daily Basis (Figure 2), $x^2 (1, N = 183) = 5.97, p < .05$: Significantly more female students at McGill, or, 3.40 times more, used a mobile phone on a daily basis than did male students, with a medium strength of association of -.18, and high significance of association, $p < .05$. Specifically, gender moderately influenced the likelihood of using a mobile phone daily. Even though one cell in this test failed one of the of the requirements of a Chi square analysis, such that expected frequencies must be greater than one, and no more than 20% of the cells have expected frequencies less than five, the Fisher’s Exact Test, which does not rely on this requirement, still showed that this association was significant at the .02 level.
Figure 2. More female students (3.40 times more) than male students at McGill used a mobile phone on a daily basis.

Use of a Computer on a Daily Basis

Of all McGill students, 181 (98.9%) used a computer on a daily basis. All of the male students (100%) indicated this, while almost all (98.7%) female students did as well. No significant difference existed between gender of students and computer use, $\chi^2(1, N = 183) = 0.41, p = ns$.

Figure 3. All male students (100%) and almost all female students (98.9%) at McGill used a computer on a daily basis.
Analysis 1: All Modes of Communication

Self-Disclosing STI Status to a Current or Most Recent Sexual Partner(s)

Of 181 students who answered this question, 158 (87.3%) preferred “Talking Face-to-Face”; 13 (7.2%) preferred to “Mobile Phone Call”; 6 (3.3%) preferred “SMS Test Message”; 2 (1.1%) preferred “Instant Messaging (MSN/AOL)”; 1 (0.6%) preferred “Facebook/MySpace”; 0 preferred “Twitter”; and finally, 1 (0.6%) preferred “Email” as the mode of communication to self-disclose to, and receive information, emotional support, and guidance from their current or most recent sexual partners. No gender differences were found for this question, $x^2 (5, N = 181) = 9.30, p = ns$.

Self-Disclosing STI Status to Close Friend(s)

Of the 181 students who answered, 148 (81.8%) preferred “Talking Face-to-Face”; 23 (12.7%) preferred to “Mobile Phone Call”; 4 (2.2%) preferred “SMS Text Message”; 4 (2.2%) preferred “Instant Messaging (MSN/AOL)”; 1 (0.6%) preferred “Facebook/MySpace”; 0 preferred “Twitter”; and finally, 1 (0.6%) preferred “Email” as the mode of communication to self-disclose to, and receive information, emotional support, and guidance from their close friend(s). No gender differences were found for this question, $x^2 (5, N = 181) = 1.82, p = ns$.

Self-Disclosing STI Status to a Parent(s)/Caregiver(s)

Of the 177 students who answered, 152 (85.9%) preferred “Talking Face-to-Face”; 15 (8.5%) preferred to “Mobile Phone Call”; 2 (1.1%) preferred “SMS Test Message”; 0 preferred “Instant Messaging (MSN/AOL)”; 0 preferred “Facebook/MySpace”; 0 preferred “Twitter”; and finally, 8 (4.4%) preferred “Email” as the mode of communication to self-disclose to, and receive information, emotional support, and guidance from their parent(s). No gender differences were found, $x^2 (3, N = 177) = 2.12, p = ns$. 
Self-Disclosing STI Status to a Doctor/Nurse

Of the 182 students who answered, 164 (90.1%) preferred “Talking Face-to-Face”; 11 (6.0%) preferred “Mobile Phone call”; 1 (0.5%) preferred “SMS Text Message”; 0 preferred “Instant Messaging (MSN/AOL)”; 0 preferred “Facebook/MySpace”; 0 preferred “Twitter;” and finally, 6 (3.3%) preferred “Email” as the mode of communication to self-disclose to, and receive information, emotional support, and guidance from their doctor or nurse. No gender differences were found, $\chi^2(3, N = 182) = 4.92, p = ns.$

Receiving Results of STI Tests

Of 183 students who answered, 105 (57.4%) preferred to receive their results through “Talking Face-to-Face”; 66 (36.1%) preferred a “Mobile Phone Call”; 3 (1.6%) preferred “SMS Text Message”; 0 preferred “Instant Message”; 0 preferred to receive their results through a “Twitter” notification; and finally, 9 (4.9%) preferred to receive their results through an “Email”. No gender differences were found, $\chi^2(3, N = 183) = 3.35, p = ns.$

Receiving New STI Treatment Information

Ninety-two (50.3%) out of 183 preferred to receive this information by “Talking Face-to-Face”; 30 (16.4%) preferred to do so through “Mobile Phone Call”; 0 preferred to do so through “SMS Text Message”, “Instant Message”, “Facebook/MySpace”, or “Twitter”. However, 61 students (33.3%) did prefer to receive new information through email, making it the second most preferred method by students to receive new STI information from a health clinic. No gender differences were found, $\chi^2(2, N = 183) = 0.36, p = ns.$

Analysis 2: Face-to-Face vs. Mobile Phone Use (Calling and Texting)

In the previous Chai square analyses, some of the choices available in each question were not chosen at all (e.g.; 0, or very few participants chose to self-disclose through Instant Message (MSN/AOL), Facebook/MySpace, Twitter, or through Email). Therefore, to artificially strengthen the likelihood of a significant association (if one did exist), the
following analyses were computed as if the questionnaire only allowed two choices to select:
(1) “Talking Face-to-Face” and (2) Mobile Phone Communication, which joined responses from (2) “Mobile Phone Call” and (3) “SMS Test Message” into one category. All other responses (choices made for 4, 5, 6, and 7) were erased. This analysis therefore compared the preference of self-disclose through non-digital means (Talking Face-to-Face) against those done exclusively through a mobile phone. However, because a large amount of data was deleted or left blank, these results should be read with caution. They do, however, provide a good indication of how students’ responses would change if they were unable to access computer-mediated modes of communication (Instant Message, Facebook, Twitter, or Email) through their mobile phones, and could only resort to traditional mobile forms of communication (phone calls and texting). In any event, this analysis is analogous to simply combining the percentages from (2) “Mobile Phone Call” and (3) “SMS Text Message” choices, and comparing them with (1) “Talking Face-to-Face”.

**Self-Disclosing STI Status to a Current or Most Recent Sexual Partner(s)**

Of 177, 158 (89.3%) preferred “Talking Face-to-Face”; 19 (10.7%) preferred to communicate via mobile phones. No gender differences were found, $x^2(1, N = 177) = 0.62, p = ns$.

**Self-Disclosing STI Status to Close Friend(s)**

Of 175, 148 (84.6%) preferred “Talking Face-to-Face”; 27 (15.4) preferred to communicate via mobile phones. No gender differences were found, $x^2(1, N = 175) = 0.82, p = ns$.

**Self-Disclosing STI Status to a Parent(s)/Caregiver(s)**

Of 170, 152 (89.9%) preferred “Talking Face-to-Face”; 17 (10.1%) preferred to communicate via mobile phones. No gender differences were found, $x^2(1, N = 169) = 0.00, p = ns$. 
Self-Disclosing STI Status to a Doctor/Nurse

Of 176, 164 (93.2%) preferred “Talking Face-to-Face”; 12 (6.8%) preferred to communicate via mobile phones. No gender differences were found, $x^2(1, N = 176) = 0.58, p = ns$.

Receiving Results of STI Tests

Of 174, 105 (60.3%) preferred “Talking Face-to-Face”; 69 (39.7%) preferred to communicate via mobile phones. No gender differences were found, $x^2(1, N = 174) = 0.48, p = ns$.

Receiving New STI Treatment Information

Of 122, 92 (75.4%) preferred “Talking Face-to-Face”; 30 (24.6%) preferred to communicate via mobile phones. No gender differences were found, $x^2(1, N = 122) = 0.50, p = ns$.

Analysis 3: Face-to-Face vs. All Digital Modes of Communication

Where the previous analysis eliminated any cases that allowed preference for (4) Instant Messaging (MSN/AOL), (5) Facebook/MySpace, (6) Twitter, and (7) Email, this analysis included them, as well as those for (2) SMS Text Messaging, and (1) Mobile Phone Calls, and combined all digital modes of communication, which was assigned a value of 2, and Talking Face-to-Face was assigned a value of 1. Like the previous analysis, this one strengthened the likelihood of a significant association between a preferred method of communication and gender. Unlike the previous analysis, however, this analysis strengthened the significance of the results, since all data was kept, and combined, in the final analysis. This is the preferred method of simplifying, reducing, and analyzing a categorical Chi square analysis when 20% of the expected frequencies are less than five (Field, 2009).
Self-Disclosing STI Status to a Current or Most Recent Sexual Partner(s)

Out of 181 participants, 171 (94.5%) preferred “Talking Face-to-Face”; 10 (5.5%) preferred to communicate via any digital means. No gender differences were found, $x^2(1, N = 181) = 1.24$, $p = ns$.  

Self-Disclosing STI Status to Close Friend(s)

Out of 181, 171 (94.5%) preferred “Talking Face-to-Face”; 10 (5.5%) preferred to communicate via any digital means. No gender differences were found, $x^2(1, N = 181) = 0.40$, $p = ns$.  

Self-Disclosing STI Status to a Parent(s)/Caregiver(s)

Of 177, 167 (94.4%) preferred “Talking Face-to-Face”; 10 (5.6%) preferred to communicate via any digital means. No gender differences were found, $x^2(1, N = 177) = 2.16$, $p = ns$.  

Self-Disclosing STI Status to a Doctor/Nurse

Of 182, 175 (96.2%) preferred “Talking Face-to-Face”; 7 (3.8%) preferred to communicate via any digital means. No gender differences were found, $x^2(1, N = 182) = 0.69$, $p = ns$.  

Receiving Results of STI Tests

Of 183, 171 (93.4%) preferred “Talking Face-to-Face”; 12 (6.6%) preferred to communicate via any digital means. No significant association between gender and receiving results was found, $x^2(1, N = 183) = 2.62$, $p = ns$.  

Receiving New STI Treatment Information

Of 183, 122 (66.7%) preferred “Talking Face-to-Face”; 61 (33.3%) preferred to communicate via any digital means. No gender differences were found, $x^2(1, N = 183) = 0.31$, $p = ns$.  

Summary of Results

Three times more female students than male students used a mobile phone on a daily basis. All students at McGill had used a computer on a daily basis. For both male and female students, all preferred to communicate with their a) current or most recent sexual partner(s), b) their friends; c) parents; and doctors or nurses d) about their STI status by Talking Face-to-Face with them, rather than through a mobile phone or any digital modes of communication. Further, all students at McGill preferred to receive their STI results, as well as new information by talking with someone at the clinic rather than having the clinic notify them via a mobile phone call, text message, or any computer-mediated message.
Participants from The University of Kwa-Zulu Natal

Earliest Age of Mobile Phone Use

The earliest (average) age at which students used a mobile phone was at 11 years, while the oldest was 24 years. The mean age was 15.73 years (SD = 2.42). Most students indicated first mobile phone use occurred at 16 years of age. There was not a significant association between gender and average age of debut of mobile phone use, \( t(111) = -0.44, p = ns, \) where the average age of first mobile phone use for male students was 15.60 years (SD = 2.50), and 15.80 years (SD = 2.39) for female students.

Use of a Mobile Phone on a Daily Basis

Of 116, 113 participants (97.4%) indicated that they use a mobile phone on a daily basis, while 3 (2.6%) did not use one daily. Of the male students, 42 (100%) did use a mobile phone daily. Of the female students, 71 (95.9%) did, while 3 (4.1%) did not. There were no gender differences associated with mobile phone use, \( x^2(1, N = 116) = 1.75, p = ns. \)

Use of a Computer on a Daily Basis

Of 114 participants who responded to this question, 71 (62.3%) used a computer on a daily basis: Twenty-six male participants indicated this (63.4%), and 45 (61.6%) females did as well. No significant difference existed between genders, \( x^2(1, N = 114) = 0.35, p = ns. \)

Analysis 1: All Modes of Communication

Self-Disclosing STI Status to a Current or Most Recent Sexual Partner(s)

Of 114 participants who answered, 97 (85.1%) preferred “Talking Face-to-Face”; 7 (6.1%) preferred to “Mobile Phone Call”; 7 (6.1%) also preferred “SMS Test Message”; 2 (1.8%) preferred “Instant Messaging (MSN/AOL)”; 1 (0.9%) preferred “Facebook/MySpace”; 0 preferred “Twitter”; and finally, zero preferred “Email” as the mode of communication to self-disclose to, and receive information, emotional support, and
guidance from their current or most recent sexual partner. No gender differences were found for this question, \( x^2(4, N = 114) = 5.30, p = ns \).

**Self-Disclosing STI Status to Close Friend(s)**

Out of 108, 79 (73.1%) students preferred “Talking Face-to-Face”; 13 (12.0%) preferred to “Mobile Phone Call”; 9 (28.3%) preferred “SMS Test Message”; 1 (0.9%) preferred “Instant Messaging (MSN/AOL)”; 4 (3.7%) preferred “Facebook/MySpace”; 0 preferred “Twitter”; and finally, 2 (1.9%) preferred “Email” as the mode of communication to self-disclose to, and receive information, emotional support, and guidance from their close friend. No gender differences were found for this question, \( x^2(5, N = 108) = 6.44, p = ns \).

**Self-Disclosing STI Status to a Parent(s)/Caregiver(s)**

Of 108, 80 (74.1%) preferred “Talking Face-to-Face”; 15 (13.9%) preferred to “Mobile Phone Call”; and, the other 13 participants (12.0%) preferred “SMS Text Message”; 0 preferred “Instant Messaging (MSN/AOL)”; 0 preferred “Facebook/MySpace”; 0 preferred “Twitter”; and finally, 0 preferred “Email” as the mode of communication to self-disclose to, and receive information, emotional support, and guidance from their parent(s). No gender differences were found, \( x^2(2, N = 108) = 2.06, p = ns \).

**Self-Disclosing STI Status to a Doctor/Nurse**

One hundred and sixty four participants of out 112 (92.0%) preferred “Talking Face-to-Face”; 3 (2.7%) preferred “Mobile Phone call”; 2 (1.8%) preferred “SMS Text Message”; 0 preferred “Instant Messaging (MSN/AOL)”; 0 preferred “Facebook/MySpace”; 0 preferred “Twitter”; and finally, 4 (3.6%) preferred “Email” as the mode of communication to self-disclose to, and receive information, emotional support, and guidance from their doctor. No gender differences were found, \( x^2(3, N = 112) = 1.58, p = ns \).
PREFERENCES FOR SELF-DISCLOSING STI STATUS

Receiving Results of STI Tests

Of 116 participants who answered, 90 (77.6%) preferred to receive their results through “Talking Face-to-Face”; 10 (8.6%) preferred a “Mobile Phone Call”, and this same amount preferred “SMS Text Message”; 0 preferred an “Instant Message (AOL/MSN)”; 0 preferred to receive their results through a “Twitter” notification; and finally, 6 (5.2%) preferred to receive their results through an “Email”. As four cases were not chosen at all (instant message, Twitter, and Email all received zero counts), and “Mobile Phone Call” was not chosen more than two times, the seemingly significant p-value of less than 0.05 renders these results inconclusive. Therefore, no gender differences were found, $\chi^2(3, N = 116) = 7.60, p < .05$.

Receiving New STI Treatment Information

Out of 114 participants who responded to this question, 76 (66.7%) preferred to receive this information by “Talking Face-to-Face”; 12 (10.5%) preferred to do so through “Mobile Phone Call”; 18 (15.8%) preferred to receive an “SMS Text Message”; 1 (0.9%) preferred to do so through an “Instant Messages (MSN/AOL)”, 0 preferred “Facebook/MySpace”, and “Twitter”. Finally, only 7 (6.1%) did prefer to receive new information through email. No gender differences were found, $\chi^2(4, N = 114) = 5.51, p = ns$.

Analysis 2: Face-to-Face vs. Mobile Phone Use (Calling and Texting)

Self-Disclosing STI Status to a Current or Most Recent Sexual Partner(s)

Out of 111 participants, 97 (87.4%) preferred “Talking Face-to-Face”; 14 (12.6%) preferred to communicate via mobile phones. No gender differences were found, $\chi^2(1, N = 111) = 3.53, p = ns$.

Self-Disclosing STI Status to Close Friend(s)

Out of 101, 79 (78.2%) preferred “Talking Face-to-Face”; 22 (21.8%) preferred to communicate via mobile phones. No gender differences were found, $\chi^2(1, N = 101) = 0.01, p$
Self-Disclosing STI Status to a Parent(s)/Caregiver(s)

Of 108, 80 (74.1%) preferred “Talking Face-to-Face”; 28 (25.9%) preferred to communicate via mobile phones. No gender differences were found, $x^2(1, N = 108) = 2.02, p = ns.$

Self-Disclosing STI Status to a Doctor/Nurse

Of 108, 103 (95.4%) preferred “Talking Face-to-Face”; 5 (4.6%) preferred to communicate via mobile phones. No gender differences were found, $x^2(1, N = 108) = 1.19, p = ns.$

Receiving Results of STI Tests

Of 110, 90 (81.8%) preferred “Talking Face-to-Face”; 20 (18.2%) preferred to communicate via mobile phones. No gender differences were found, $x^2(1, N = 110) = 1.41, p = ns.$

Receiving New STI Treatment Information

Of 106, 76 (71.7%) preferred “Talking Face-to-Face”; 30 (28.3%) preferred to communicate via mobile phones. No gender differences were found, $x^2(1, N = 106) = 0.06, p = ns.$

Analysis 3: Face-to-Face vs. All Digital Modes of Communication

Self-Disclosing STI Status to a Current or Most Recent Sexual Partner(s)

Out of 114 participants, 104 (91.2%) preferred “Talking Face-to-Face”; 10 (8.8%) preferred to communicate via any digital means. No gender differences were found, $x^2(1, N = 114) = 3.21, p = ns.$

Self-Disclosing STI Status to Close Friend(s)

Out of 108, 92 (85.2%) preferred “Talking Face-to-Face”; 16 (14.8%) preferred to communicate via any digital means. No gender differences were found, $x^2(1, N = 108) = 0.19.$
p = ns.

**Self-Disclosing STI Status to a Parent(s)/Caregiver(s)**

Of 108, 95 (88.0%) preferred “Talking Face-to-Face”; 12 (12.0%) preferred to communicate via any digital means. No gender differences were found, $x^2(1, N = 108) = 1.09$, $p = ns$.

**Self-Disclosing STI Status to a Doctor/Nurse**

Of 112, 106 (94.6%) preferred “Talking Face-to-Face”; 6 (6.0%) preferred to communicate via any digital means. No gender differences were found, $x^2(1, N = 112) = 0.03$, $p = ns$.

**Receiving Results of STI Tests**

Of 116, 100 (86.2%) preferred “Talking Face-to-Face”; 16 (13.8%) preferred to communicate via any digital means. A significant association between gender and receiving results was found, $x^2(1, N = 116) = 6.45$, $p < .01$, such that, Cramer’s $V = -.26$, a moderately strong association. Odds ratio calculations show that female students were 3.89 times more likely than male students to prefer to receive results of their STI tests by talking face-to-face with a nurse at a health clinic than through any digital modes of communication.
Figure 4. Female students at UKZN were 3.89 times more likely than male students at UKZN to prefer to receive STI results by talking face-to-face with a nurse at a health clinic than through any digital modes of communication.

Receiving New STI Treatment Information.

Of 114 participants who answered, 88 (77.2%) preferred “Talking Face-to-Face”; 26 (22.8%) preferred to communicate via any digital means. No gender differences were found, \( x^2(1, N = 114) = 1.81, p = ns \).

Summary of Results

Students at UKZN began using a mobile phone at an average age of 15 years. The earliest was at 11 years, and the oldest at 21 years. Almost all students used a mobile phone on a daily basis, and only about 60% used a computer on a daily basis, with no differences between male or female students for either use.

All students overwhelmingly preferred to self-disclose their STI status by “Talking Face-to-Face” with all targets of self-disclosure. Even when the categories of choices were more limited to the extent that students could only choose to self-disclose, and to receive their STI status through either (1) “Talking Face-to-Face” or (2) Using any digital means possible (to make or receive phone calls, text messages, send messages through MSN/AOL, be contacted or contact others through Facebook/MySpace, Twitter, or Email), the overwhelmingly strong preference for Talking Face-to-Face was similar for both genders, and for all targets. However, there was a significant association between gender and receiving results; specifically, female students at UKZN were almost four times more likely than male students at UKZN to prefer to receive their STI results from a health clinic by “Talking Face-to-Face” than doing so through any digital modes of communication.
All Participants Combined Into One Sample

The entire sample of participants consisted of three hundred and three (303) students. All students were enrolled in a second-year undergraduate course within a faculty of education, at McGill University, Montreal (183, or 60.2%), and at The University of Kwa-Zulu Natal, South Africa (120, or 39.8%). The sample was divided between 73 male students (25.8%) and 228 female students (75.2%), who ranged in age between 18 to 45 years, with an average or mean age of 20.82 years ($SD = 3.107$). Most students were 19 years old. The average age of male students was 21.25 years ($SD = 2.88$), and 20.68 ($SD = 3.18$) years for females. One gender was not significantly older or younger than the other, $t(299) = 1.35$, $p = ns$.

Earliest Age of Mobile Phone Use

The earliest age of mobile phone use indicated was 8 years, with a mean age of 15.53 years ($SD = 2.52$). Most students indicated first mobile phone use occurred at 16 years of age, where the average age of first mobile phone use for all male students was 16.05 years ($SD = 2.68$) and 15.37 years ($SD = 2.45$) for all female students. There was a significant difference between all male participants and all female participants in their average age of first mobile phone use, $t(277) = 1.92$, $p < .05$, such that female students first used a mobile phone at a significantly earlier age (15 years) than did male students (16 years).

Use of a Mobile Phone on a Daily Basis

Of 299 who responded to this question, 277 participants (92.6%) indicated that they used a mobile phone on a daily basis, while 22 (7.4%) did not use one daily. Of the 73 males, 66 (90.4%) did use a mobile phone daily. Of the 226 females, 211 (93.4%) did, while 15 (6.6%) did not. There were no gender differences associated with mobile phone use, $x^2(1, N = 299) = 0.70$, $p = ns$. 
Use of a Computer on a Daily Basis

Of 297 participants who responded, 252 (84.8%) used a computer on a daily basis. Fifty-seven male participants indicated this (79.2%), and 195 (77.4%) female participants did as well. Further, no significant difference exists between genders, $x^2(1, N = 297) = 2.39, p = ns$.

Analysis 1: All Modes of Communication

Self-Disclosing STI Status to a Current or Most Recent Sexual Partner(s)

Of 296 participants who answered, 255 (86.4%) preferred “Talking Face-to-Face”; 20 (6.8%) preferred “Mobile Phone Call”; 13 (4.4%) preferred “SMS Test Message”; 4 (1.4%) preferred “Instant Messaging (MSN/AOL)”; 2 (0.7%) preferred “Facebook/MySpace”; 0 preferred “Twitter”; and finally, 1 (0.3%) preferred “Email” as the mode of communication to self-disclose to, and receive information, emotional support, and guidance from their current or most recent sexual partner(s). No gender differences were found for this question, $x^2(5, N = 295) = 9.61, p = ns$.

Self-Disclosing STI Status to Close Friend(s)

Out of 289, 227 (78.5%) preferred “Talking Face-to-Face”; 36 (12.5%) preferred “Mobile Phone Call”; 13 (4.5%) preferred “SMS Test Message”; 5 (1.7%) preferred “Instant Messaging (MSN/AOL)”; 5 (1.7%) preferred “Facebook/MySpace”; 0 preferred “Twitter”; and finally, 3 (1.0%) preferred “Email” as the mode of communication to self-disclose to, and receive information, emotional support, and guidance from their close friend. No gender differences were found for this question, $x^2(5, N = 289) = 4.70, p = ns$.

Self-Disclosing STI Status to a Parent(s)/Caregiver(s)

Of 289 students who answered, 232 (81.4%) preferred “Talking Face-to-Face”; 30 (10.5%) preferred to “Mobile Phone Call”; 15 (5.3%) preferred “SMS Test Message”; 0 preferred “Instant Messaging (MSN/AOL)”; 0 preferred “Facebook/MySpace”; 0 preferred
“Twitter”; and finally, 8 (2.8%) preferred “Email” as the mode of communication to self-disclose to, and receive information, emotional support, and guidance from their parent(s). No gender differences were found, $x^2(3, N = 289) = 2.90, p = ns$.

**Self-Disclosing STI Status to a Doctor/Nurse**

Out of 294 participants who answered, 267 (90.8%) preferred “Talking Face-to-Face”; 14 (4.8%) preferred “Mobile Phone call”; 3 (1.0%) preferred “SMS Text Message”; zero preferred “Instant Messaging (MSN/AOL)”; 0 preferred “Facebook/MySpace”; 0 preferred “Twitter”; and finally, 10 (3.4%) preferred “Email” as the mode of communication to self-disclose to, and receive information, emotional support, and guidance from their doctor. No gender differences were found, $x^2(3, N = 294) = 3.16, p = ns$.

**Receiving Results of STI Tests**

Of 299 participants who answered, 195 (65.2%) preferred to receive their results through “Talking Face-to-Face”; 76 (25.4%) preferred a “Mobile Phone Call”, 13 (4.3%) preferred to receive an “SMS Text Message”; 0 preferred an “Instant Message (AOL/MSN)”; 0 preferred to receive their results through a “Twitter” notification; and finally, 15 (5.0%) preferred to receive their results through an “Email”. No gender differences were found, $x^2(3, N = 299) = 6.97, p = ns$.

**Receiving New STI Treatment Information**

Out of 297 participants who responded to this question, 168 (56.5%) preferred to receive this information by “Talking Face-to-Face”; 42 (14.1%) preferred to do so through “Mobile Phone Call”; 18 (6.1%) preferred to receive an SMS Text Message; 1 (0.3%) preferred to do so through an “Instant Message (MSN/AOL)”; 0 preferred “Facebook/MySpace”, or “Twitter”. Finally, a rather large amount, 68 (22.9%) did prefer to receive new information through email. No significant associations were found between receiving information and gender.
Analysis 2: Face-to-Face vs. Mobile Phone Use (Calling and Texting)

Self-Disclosing STI Status to a Current or Most Recent Sexual Partner(s)

Out of 288 participants, 255 (88.5%) preferred “Talking Face-to-Face”; 3 (11.5%) preferred to communicate via mobile phones. No gender differences were found, \( x^2(1, N = 288) = 3.15, p = ns \).

Self-Disclosing STI Status to Close Friend(s)

Out of 276 participants, 227 (82.2%) preferred “Talking Face-to-Face”; 49 (17.8%) preferred to communicate via mobile phones. No gender differences were found, \( x^2(1, N = 276) = 0.11, p = ns \).

Self-Disclosing STI Status to a Parent(s)/Caregiver(s)

Of 277 students, 232 (83.8%) preferred “Talking Face-to-Face”; 45 (16.2%) preferred to communicate via mobile phones. No gender differences were found, \( x^2(1, N = 277) = 0.21, p = ns \).

Self-Disclosing STI Status to a Doctor/Nurse

Of 284, 267 (94.0%) preferred “Talking Face-to-Face”; 17 (6.0%) preferred to communicate via mobile phones. No gender differences were found, \( x^2(1, N = 284) = 1.10, p = ns \).

Self-Disclosing STI Status to a Doctor/Nurse

Of 284, 195 (68.7%) preferred “Talking Face-to-Face”; 89 (31.3%) preferred to communicate via mobile phones. No gender differences were found, \( x^2(1, N = 284) = 0.26, p = ns \).

Receiving New STI Treatment Information

Of 228, 168 (73.7%) preferred “Talking Face-to-Face”; 60 (26.3%) preferred to communicate via mobile phones. No gender differences were found, \( x^2(1, N = 228) = 0.03, p = ns \).
Analysis 3: Face-to-Face vs. All Digital Modes of Communication

Self-Disclosing STI Status to a Current or Most Recent Sexual Partner(s)

Out of 295 participants, 255 (86.4%) preferred “Talking Face-to-Face”; 40 (13.6%) preferred to communicate via any digital means. Though no gender differences were found to be significant, $\chi^2(1, N = 295) = 3.56, p = .06$, male students were 2.5 times more likely than female students to prefer to self-disclose to their current or most recent sexual partner about their STI status by talking face-to-face with them than through all digital modes of communication.

![Bar chart showing communication preferences.]

*Figure 5.* Male students were 2.5 times more likely than female students to prefer to self-disclose to their current or most recent sexual partner about their STI status by talking face-to-face with them than through all digital modes of communication.

Self-Disclosing STI Status to Close Friend(s)

Of 289, 227 (78.5%) preferred “Talking Face-to-Face”; 62 (21.5%) preferred to communicate via any digital means. No gender differences were found, $\chi^2(1, N = 289) = 0.12, p = ns.$
Self-Disclosing STI Status to a Parent(s)/Caregiver(s)

Of 285, 232 (81.4%) preferred “Talking Face-to-Face”; 53 (18.6%) preferred to communicate via any digital means. No gender differences were found, $\chi^2(1, N = 285) = 1.01$, $p = ns$.

Self-Disclosing STI Status to a Doctor/Nurse

Of 294, 267 (90.8%) preferred “Talking Face-to-Face”; 27 (9.2%) preferred to communicate via any digital means. No gender differences were found, $\chi^2(1, N = 294) = 0.43$, $p = ns$.

Receiving Results of STI Tests

Of 299, 195 (65.2%) preferred “Talking Face-to-Face”; 104 (34.8%) preferred to communicate via any digital means. No gender differences were found, $\chi^2(1, N = 299) = 0.14$, $p = ns$.

Receiving New STI Treatment Information

Of 297, 168 (56.6%) preferred “Talking Face-to-Face”; 129 (43.4%) preferred to communicate via any digital means. No gender differences were found, $\chi^2(1, N = 297) = 0.61$, $p = ns$.

Summary of Results

Students were between 18 and 45 years old, with the average being 20 years old. The earliest a student began using a mobile phone was at the age of 8, and the oldest was at age 45. Female students began using a mobile phone at a significantly earlier age (15 years) than male students (16). Almost all (about 90%) students, both male and female, used a mobile phone on a daily basis, and about 85% used a computer on a daily basis.

All students preferred to self-disclose their STI status to (a) their current or most recent sexual partner, (b) their close friends, (c) their parents, and (d) a doctor/nurse by talking face-to-face with them. Students also preferred to (e) receive results of their STI tests
through this same method, as well as (f) receive new info about an STI that is important to them. However, 23% of students did prefer to receive such information through “Email”.

There was a (non-significant, but strong) association between gender and self-disclosing to a sexual partner, such that, male students were over two times more likely than female students to prefer to self-disclose their STI status to their sexual partner by talking face-to-face with them than through any digital means of communication. No other associations were found when comparing gender and (1) all other targets of self-disclosure, or (2) receiving results or (3) new information from a health clinic.
Differences Associated by Universities: McGill vs. UKZN

Age of Participants

No differences were found between age of participants and location of universities, $t(301) = -1.70, p = ns$.

Earliest Age of Mobile Phone Use

No differences were found between first age of mobile phone use, and school, $t(277) = -1.09, p = ns$.

Use of a Mobile Phone on a Daily Basis

There was a significant association between location of university and mobile phone use on a daily basis $\chi^2(1, N = 299) = 6.33, p < .01$. Based on the odds ratio, (and Cramer’s $V = -1.46$, with a medium strength of association), for every student at McGill who used a mobile phone on a daily basis, about four students at UKZN did.

Figure 6. Students at UKZN were 4.37 times more likely to use a mobile phone on a daily basis than were students at McGill.
Use of a Computer on a Daily Basis

There was also a significant association between location of universities, and daily computer use, \(x^2(1, N = 297) = 73.30, p < .00\), such that, for every one student at UZKN who used one, 54.84 students at McGill did. This association was particularly strong (Cramer’s \(V = .50\)).

Figure 7. Fifty-four times more students at McGill used a computer on a daily basis than did students at UKZN.

Analysis 1: All Modes of Communication

Self-Disclosing STI Status to a Current or Most Recent Sexual Partner(s)

No differences were found for this question and school, \(x^2(5, N = 297) = 3.07, p = ns\).

Self-Disclosing STI Status to Close Friend(s)

There were no significant associations between location of universities and preference for self-disclosure to Close Friend, \(x^2(5, N = 291) = 13.03, p < .05\). Even though a critical significance level less than .05 was achieved, 7 cells (over 50%) had expected frequencies less than five, rendering any significant findings inconclusive.

Self-Disclosing STI Status to a Parent(s)/Caregiver(s)

There were no significant associations between location of universities and preference
for self-disclosure to parent, $x^2(3, N = 291) = 23.37, p < .00$. Although a critical significance level less than .01 was achieved, two cells (25%) had expected frequencies less than five, rendering any significant findings inconclusive.

**Self-Disclosing STI Status to a Doctor/Nurse**

No differences were found between location of universities and preference for disclosing to a doctor/nurse, $x^2(3, N = 294) = 2.77, p = ns$.

**Receiving Results of STI Tests**

There was a significant association between location of universities and preference for Receiving STI Results, $x^2(3, N = 301) = 34.04, p < .00$. However, the counts were analyzed between “Talking-Face-to-Face”, and “Mobile Phone Calls”: Only a very small amount of students from either school preferred SMS text messaging to receive sexual health information (1.6% at McGill; and 8.5% at UKZN). Further, a similarly low amount of students preferred to receive results through an Email notification (4.9% at McGill; and, 5.1% at UKZN). Therefore, the significance of these findings will be explored in the second and third analyses.

**Receiving New STI Treatment Information**

There were no significant associations between location of universities and preference for receiving new sexual health information, $x^2(4, N = 298) = 58.46, p < .00$. Although a critical significance level of less than .01 was achieved, two cells (20%) had expected frequencies less than five, rendering any significant findings inconclusive.

**Analysis 2: Face-to-Face vs. Mobile Phone Use (Calling and Texting)**

**Self-Disclosing STI Status to a Current or Most Recent Sexual Partner(s)**

No differences were found for this question and location of universities, $x^2(1, N = 290) = 0.43, p = ns$. 
Self-Disclosing STI Status to Close Friend(s)

No differences were found for this question and location of universities, \( x^2(1, N = 277) = 1.67, p = ns \).

Self-Disclosing STI Status to a Parent(s)/Caregiver(s)

There was a significant association between location of universities and preference for self-disclosing to parents, \( x^2(1, N = 279) = 12.87, p < .00 \), such that, students at McGill were 3.20 times more likely than students at UKZN to prefer to self-disclose their STI status to parents by talking face-to-face than through mobile phone calls and text messages combined. This association between location of universities and method of self-disclosure was strong (Cramer’s \( V = .22 \)).

![Bar chart showing preference for self-disclosure to parents by school.](image)

*Figure 8.* Students at McGill were 3.20 times more likely than students at UKZN to prefer to self-disclose their STI status to their parents by talking face-to-face than through mobile phone calls and text messages combined.

Self-Disclosing STI Status to a Doctor/Nurse

No differences were found for a preference for disclosing to a doctor, \( x^2(1, N = 286) = 0.63, p = ns \).
Receiving Results of STI Tests

There was a significant association between location of universities and preference for Receiving Results, \( \chi^2(1, N = 286) = 15.10, p < .00 \). Specifically, 2.27 times more students at UKZN than at McGill preferred to receive their results by talking face-to-face with a nurse at a health clinic than through a mobile phone call and text message combined. This association was particularly significant, though not necessarily strong (Cramer’s \( V = -.02 \)), possibly because data was removed from this analysis.

![Figure 9](image.png)

Figure 9. Two times more students at UKZN than at McGill preferred to receive their results by talking face-to-face with a nurse at a health clinic than through a mobile phone call or text message combined.

Receiving New STI Treatment Information

No associated were found between location of universities and receiving new information, \( \chi^2(1, N = 229) = 0.35, p = ns \).
Analysis 3: Face-to-Face vs. All Digital Modes of Communication

Self-Disclosing STI Status to a Current or Most Recent Sexual Partner(s)

No differences were found for this question and location of universities, $\chi^2(1, N = 297) = 0.47, p = ns$.

Self-Disclosing STI Status to Close Friend(s)

No differences were found for this question and location of universities, $\chi^2(1, N = 291) = 3.30, p = ns$.

Self-Disclosing STI Status to a Parent(s)/Caregiver(s)

There was a significant association between location of universities and preference for self-disclosing to parents, $\chi^2(1, N = 287) = 6.65, p < .01$, such that, based on the odds ratio, students at McGill were 2.79 times more likely than students at UKZN to prefer to self-disclose their STI status to their parents by talking face-to-face with them than through any digital modes of communication. This association was weak, (Cramer’s $V = .02$), but was highly significant.

![Figure 10](image)

*Figure 10.* McGill students were 2.79 times more likely than students at UKZN to prefer to self-disclose their STI status to their parents by talking face-to-face with them than through any digital modes of communication.
Self-Disclosing STI Status to a Doctor/Nurse

No differences between location of universities were found for a preference for disclosing to a doctor, $x^2(1, N = 296) = 0.34, p = ns$.

Receiving Results of STI Tests

There was a significant association between location of universities and preference for receiving results, $x^2(1, N = 301) = 13.45, p < .00$. Based on the odds ratio, students at UKZN were 2.62 times more likely than students at McGill to prefer to receive their STI results through talking face-to-face talking with a person at a health clinic than through any digital modes of communication. This association was moderately strong Cramer’s $V = - .21$), and highly significant.

![Figure 11](image)

*Figure 11.* Students at UKZN were 2.62 times more likely than students at McGill to prefer to receive their STI results by talking face-to-face talking with a person at a health clinic than through any digital modes of communication.

Receiving New STI Treatment Information

There was a significant association between location of universities and preference for receiving New STI Health Information, $x^2 (1, N = 298) = 8.01, p < .01$. Based on the odds
ratio of 1.8, students at UKZN were about two times more likely than students at McGill to prefer to Receive New STI Information by talking face-to-face than through any digital modes of communication. This association was moderately strong, (Cramer’s $V = .16$), and highly significant.

![Graph showing preferences for self-disclosing STI status by school](image)

*Figure 12.* Students at UKZN were two times more likely than students at McGill to prefer to Receive New STI Information by talking face-to-face than through any digital modes of communication.

**Summary of Results**

Female students, in general, but also more specifically female students at McGill University began using a mobile phone at a significantly younger average age of 15 years than were male students, who began using a mobile phone at age 16. However, all students at UKZN were 4.37 times more likely to use a mobile phone on a daily basis than were students at McGill, who were 54.84 times more likely to use a computer on a daily basis than students at UKZN.

Students at McGill were 3.20 times more likely than students at UKZN to prefer to self-disclose their STI status to their parents by talking face-to-face with them than doing so
by a mobile phone call or text message; and, they were 2.79 times more likely prefer to do so by talking face-to-face than through any digital modes of communication.

Students at UKZN, specifically, were 2.27 times more likely than students at McGill to prefer to receive their STI test results by talking face-to-face with a health clinic nurse than through mobile phone calls and text messages combined, and 2.62 times more likely to prefer face-to-face talking than all digital modes of communication.
Use of Mobile Phones and Computers

Almost all students at McGill University used a mobile phone, as well as a computer, on a daily basis. Specifically, three times more female students than male students used a mobile phone on a daily basis. Female students also began using a mobile phone at a significantly earlier average age (15) than did male students (age 16), even though male students were older (16) than were female students (15).

Preferences for Self-Disclosing their STI status

All students, whether female or male, when asked which method of communication they would prefer to self-disclose their STI status to their (1) current or recent sexual partner; (2) close friend; (3) parents; and, (4) doctor or nurse, indicated that they would overwhelmingly (between 80% and 96%) prefer to do so more often by talking face-to-face with them than by any digital modes of communication.

Preferences for Receiving STI Test Results and New Information from Health Clinics

When asked which method of communication students would prefer to (1) receive their STI results from a health clinic, and (2) prefer to receive updates about new STI information, students at McGill indicated they would prefer to be informed about their STI status (60%) and receive new STI information (50%) by talking face-to-face with a clinician. However, a moderate amount of students did preferred to receive their results through a mobile phone call or text message (36%, and 1.6%), and preferred to be informed about new updates through digital modes of communication (16.4% preferred a mobile phone call, and 33.3% preferred to be notified through Email).

Finally, even when categories of choices were more limited to the extent that participants at McGill could only choose to (1) self-disclose their STI status, to (2) receive
their STI status or (3) new information either through (1) “Talking Face-to-Face” or (2) “Using any digital modes of communication (to make or receive phone calls, text messages, send messages through MSN/AOL, be contacted or contact others through Facebook/MySpace, Twitter, or Email)”, the overwhelmingly strong preference for talking face-to-face was similar for both male and female students.

**The University of Kwa-Zulu Natal**

**Use of Mobile Phones and Computers**

Similar to students at McGill, almost all students at The University of Kwa-Zulu Natal in South Africa, who were on average 21 years old (both male and female students) used a mobile phone on a daily basis, and first began to use a mobile phone, on average, by their 15th birthday. The youngest student was 11, and the oldest was 24 when they first began to use one. However, unlike students at McGill, only slightly over half of students at UKZN (62%, both male and female) indicated that they used a computer on a daily basis.

**Preferences for Self-Disclosing STI status**

Also similar to responses of students at McGill, students at UKZN (between 74% and 95%) overwhelmingly preferred to self-disclose their STI status more often by talking face-to-face with (1) their current or most recent sexual partner(s); (2) close friend(s); (3) parent(s)/caregiver(s); and (4) doctor or nurse than through any digital modes of communication.

**Preferences for Receiving STI Test Results and New Information**

Students also preferred to talk face-to-face with nurses or doctors at health clinics when (1) receiving their STI results (in fact, three times more female students than male students preferred this); and (2) to receive updates about new STI treatment options.
Preference for Receiving New STI Treatment Information

Finally, students at UKZN were two times more likely than students at McGill to prefer to receive new STI health information by talking face-to-face with a health clinic nurse when receiving new health information than communicating through any digital modes of communication.

Summary of All Significant Associations

There were 2.8 times more female students than male students who completed the survey. Female students began using a mobile phone at a significantly younger age (at 15 years of age) than did male students (at 16 years of age). There was not a significant age difference between the two groups, however. Most students used a mobile phone, with 3.40 times more female students than male students doing so. Almost all students used a computer on a daily basis as well. When asked how they would prefer to (1) self-disclose their STI status to others, all students overwhelmingly preferred to do so by talking face-to-face with others, whether it was with a (a) current or recent sexual partner; (b) close friend; (c) parent; or (d) doctor. Other forms of communication, such as mobile phone calls, text messages, or Email was not often chosen, even when case choices were collapsed and combined. However, when asked how students would prefer to (3) receive their STI test results from a health clinic, only slightly more than 50% of students indicated they preferred to talk face-to-face with a counselor, while 35% preferred to receive a phone call. Similarly, when asked how they would prefer to receive new STI information, only 50% of students preferred talking face-to-face, 16% preferred to receive a phone call, and more than 30% preferred to receive new information via their Email.
**Chapter 5: Qualitative Analysis**

**Introduction**

In this chapter, I describe the thematic analysis I used to code and categorize students’ written responses for the following questions that were shown to have significant associations between gender and location of universities: (1) Preferences for disclosing to current or most recent sexual partner; (2) Preferences for disclosing to parents; (3) preferences for receiving STI test results; and (4), preferences for receiving new STI information. Throughout each analysis, I incorporated the quantitative results from the previous section, direct quotes from students’ responses, as well as my own explanations for students’ preferences. Finally, I compared these results with those from previous studies.

**Thematic Analysis**

No studies, as far as I know, have incorporated an analysis of how, or why, students would prefer to self-disclose their STI status to their romantic partners, friends, parents, or sexual health professionals. Therefore, I have incorporated a qualitative thematic analysis to determine why, specifically, a particular form of communication is preferred to (1) self-disclose STI status; (2) how students would prefer to receive their STI results from doctors or nurses; and (3), how students would prefer to receive new STI-related information.

The qualitative responses were coded and analyzed according to Braun and Clarke's (2006) approach to thematic analysis. Thematic analysis allows researchers to integrate their own theoretical framework into the analysis of their data, rather than being confined to a particular theory utilized by previous researchers. Each question on the survey asked students to indicate why they preferred to communicate through the method they chose with each target person. Specifically, most questions directed students to “Briefly explain why you picked your choice above”.

Coding of the free-form responses followed the 6-steps outlined by Braun and Clarke (2006). First, because participants responded through a paper-based survey, no transcribing was required. However, I read all of the responses before creating the categories of themes. Second, only those responses that described a preference for “talking face-to-face” were coded, which was the predominant form of communication preferred by all students. The third step involved collapsing the categories, and collating and sorting responses according to themes. Finally, once all of the qualitative responses were coded, they were entered into an SPSS data sheet, and quantified in relation to (1) the entire group of participants; (2), students’ gender; and (3), the school or geographic location. The quantifying of responses went only so far as to generate an output of proportions of students whose responses fell into each category. Specifically, no tests of significance were conducted, as was done with the quantitative data. This method of quantifying qualitative data allowed me to compare, both numerically and graphically through bar charts, (1) why students preferred a particular form of communication; (2) how these “why” reasons related to each question; and (3) how did (1) students’ gender and (2) the location of their school factor into their qualitative responses.

Category Formations

Four categories were borne out from the qualitative responses (See Tables 1 though 4 at the end of the Appendices section). Specifically, (1) Expectations of the Relationship; (2) Other Person’s Needs; (3) Individual’s Own Needs; and (4) Pipeline of Communication. These categories will be explored further in the next section, Qualitative Results, as they relate to (1) Preferences for texting: Male versus female students; (2) self-disclosing STI status to current or most recent sexual partner; (3) self-disclosing STI status to close friends; (4) self-disclosing STI status to parents; (5), receiving results of STI tests; and (6) receiving new STI treatment information.
Results of Qualitative Responses

Preferences for Texting: Male vs. Female Students

The propensity for female students to use a mobile phone at an earlier age than male students can be attributed to how female students communicated with their social peer groups; for instance, on a number of occasions, female students (at McGill) preferred to disclose their STI status to their close friends through SMS text messages because “I would be embarrassed”, or “it’s easier to tell (through SMS texts)”. Another student wrote, “It’s easier to tell your close friends (through a mobile phone call) because you won’t feel pressured by them”. Consistent with Ling’s (2005) assertion that the ubiquity of the mobile phone use is penetrating existing peer group interactions, female students (who were using a mobile phone at an earlier age than were male students, and were more likely to use one on a daily basis than their male counterparts) may feel more comfortable disclosing private information to their friends through mobile phone calls or text messages, simply because texting is how they would prefer to communicate with their friends, regardless of the intended message.

Further, fewer male students may have preferred to use a mobile phone due to the value that was attributed to talking face-to-face with others; for example, a male student at UKZN, when asked how he would prefer to self-disclose his STI status to his sexual partner, indicated he would rather talk face-to-face because “this will allow me to express my feelings”. Another male student (at UKZN) went so far as to prefer talking face-to-face because it allowed him to protect his girlfriend from committing suicide. Consistent with results of Faulkner and Culwin’s (2005) findings that female students sent and received more texts than did male students, while male students preferred to call their peer group members rather than text them, male students may be less likely to use a mobile phone if they feel it prevents them from a fuller experience of communicating with their peer group friends.
The disproportionate amount of male students who use a mobile phone may also pertain to
the strength, or perception that men should be strong, and assume ownership of their actions,
as was indicated by one students’ (UKZN) response, who wrote he would prefer to talk face-
to-face with his friends because “I’m not afraid of them”, and “I’m not a coward”. What is
more bothersome, however, is that many male students preferred face-to-face talking because
“my friends would not believe me if I texted them this-I would need to show them my face”,
which suggests that a significant behavioural component is strongly implicated between
male-male communication among students in South Africa.

Self-Disclosing STI Status to Current or Most Recent Sexual Partner(s)

When self-disclosing their STI status, male students were 2.5 times more likely than
female students to prefer to disclose their STI status to their current or most recent sexual
partner by talking face-to-face than through any digital modes of communication. When
asked why they preferred to communicate this way, male students cited Expectations of the
Relationship; for example, “It’s the right thing to do”; or, “It’s respectful and mature”.
Female students indicated Other Person’s Needs, such as “It demonstrates I am mature and
am taking it seriously” Also, “(my partner) would be offended otherwise”, and, “So they can
get tested”. Male students’ preference to self-disclose to their partner by talking face-to-face
with them could be attributed to (1) the finding that over three times more female than male
students at McGill use a mobile phone on a daily basis; (2), that this same group began using
a mobile phone at an earlier age; or (3), because male students felt that speaking through any
other means than talking face-to-face is not preferable because “there is no other way to talk
about such a subject”. This statement may be a reflection of the seriousness of disclosing
one’s STI status, as is also reflected by the statement “that is serious stuff you can’t do over
the phone”.

PREFERENCES FOR SELF-DISCLOSING STI STATUS
Self-Disclosing STI Status to Close Friend(s)

However, very few students preferred to self-disclose their STI status through SMS text messages with anyone. Female students could be more intimately connected with their peer group friends through mobile phone calls (Valkenbourg & Peter, 2009) or text messages (Reid & Reid, 2005; Pettigrew, 2009) than through talking face-to-face, but they may not necessarily be more likely, willing, or feel comfortable communicating with their friends about such a private and personal topic as their STI status through a text message, precisely because of the anxious nature that disclosing STI status would be (Leung, 2007). Spontaneous self-disclosure about intimate and private topics may occur more likely occur through computer-mediated-communication than through talking face-to-face in some cases, when the level of anxiety about communication is moderate (Joinson, 2001). However, perhaps communicating about one’s STI status is a significantly anxious topic, such that young people were more likely to abandon the use of their mobile phones altogether, as occurred in Reid & Reid’s study (2007), where very anxious students disliked using any form of computer-mediated communication to be connected with their peer group friends. When self-disclosing STI status to partners, friends, and parents, the serious and private nature of the information may be what dictates how, specifically, students communicate with others.

Self-Disclosing STI Status to Parents

Students at McGill were between two and over three times more likely than students at UKZN to self-disclose their STI status to their parents by talking face-to-face with them. When asked why, many students at McGill cited Expectations of The Relationship; for example, they wrote, “it demonstrates that I am mature”; and “Why not-if you can have sex, you should be able to talk about it”. Many students at UKZN cited Individual’s Own Needs; for example, “to receive emotional support”, “it’s better for me if they see my emotions”, and “I will not hide my shame or be embarrassed”. However, a number of students at UKZN also
wrote: “So they can kill me”, “I owe it to them”, and “I know (my parents) would be disappointed, but they deserve to know”. Consistent with Simoni et al. (1995), perhaps the desire of having a secure relationship with one’s parents encourages young people to prefer a more intimate (and non computer-mediated) mode of communication when discussing personal and private matters as their STI status. However, one would also expect from these findings, that students who would be apprehensive of their parents’ reactions would prefer to text them initially, and talk face-to-face with them only when they are sure their parents have had sufficient time to process the information. In fact, results of this study show that students at UKZN (who also wrote that they would be afraid of their parents’ reactions) were less likely to self-disclose to their parents by talking face-to-face with them, than did students at McGill, who overwhelmingly cited expectations of receiving care, compassion, and support from their parents, and would rather (two times more likely) talk face-to-face with them about their STI status.

This difference in preferring to talk face-to-face may also be attributed to the way students in South Africa communicate with anyone, regardless of the relationship with them. For example, almost all UKZN students indicated that they used a mobile phone on a daily basis, whereas over 10% fewer students at McGill did so. Additionally, this difference can be reflected in one McGill student’s statement: “It would be silly talking to them any other way”; or, “my parents aren’t technology buffs”. While 10% is not a significant difference, perhaps more students at McGill communicate with their parents through other computer-mediated methods, such as Email, or perhaps, as their qualitative responses would suggest, can expect a comforting (rather than confrontational) response from their parents upon disclosing their STI status to them.

Further still, the disparity in HIV and AIDS rates between Canada and South Africa could make it easier for students in Canada, where incidence rates of HIV and AIDS are
lower than in South Africa (UNAIDS, 2010), to more likely communicate with their parents about having a non-life-threatening STI, such as Herpes or Hepatitis, rather than AIDS or HIV, as would be more prevalent in South Africa. In any event, as all students answered the same question, it should be assumed that McGill students were also thinking about AIDS or HIV, and the severity of the disease, when answering this question.

One hopes that, statements such as “it’s better to talk it out and be there for each other”, and “…so they can give me emotional support” from McGill students is an accurate reflection about the state of the relationship between students at McGill and their parents, and so, better reflects why over two times the amount of McGill students than UKZN students would prefer to talk face-to-face with their parents about having an STI.

Unfortunately, statements made by students at UKZN are not so heartening. For example, the statement above by a UKZN student who felt his/her parents would be disappointed, or, another student who preferred to text his/her parents because they were “afraid they’ll say I’m irresponsible”, or, would prefer to call them instead “because I am scared of them”. Worse yet, one student at UKZN still preferred to disclose their STI status to their parents by talking face-to-face with them “so that they kill me instantly if they want”. The fear that is associated with having a life-threatening illness as HIV or AIDS may be more of a reality for students in South Africa than it is in Canada, given the disproportionally high rate of infections (UNAIDS, 2010). However, the responses from students at McGill do seem to point to the supportive nature of parents in Canada, perhaps due to cultural norms, or perhaps the reality of AIDS and HIV for parents in South Africa is so great, that the perpetual fear of believing that one’s own son or daughter could become infected breeds anger, rather than comfort and compassion. Further, it could point to the possibility that Canadian students and their parents are inexperienced with the repercussions of having HIV or AIDS, that there is perhaps a more naïve understanding.
However, many students at UKZN did indicate a loving and supportive relationship with their parents, in statements as “they can give me support and they will never abandon me”, and “my parents will not judge me…they can support me”. While many students at UKZN did indicate that they would prefer to talk face-to-face with their parents about their STI status, the words “advice” and “comfort” do not often appear in their statements.

**Receiving Results of STI Tests**

When desiring to become aware of their STI status, over two times the amount of students at UKZN than at McGill preferred to receive their STI status by talking face-to-face with a doctor or a nurse at a health clinic, as did four times the amount of female students than male students at UKZN. All students at UKZN cited Individual’s Own Needs as reasons; for example, one student wrote: “I prefer to be counseled at that moment”, “to get help or advice”, and, “…to make sure the results (are) true”. Female students at UKZN wrote “they will tell me that even if I’m affected, that doesn’t mean that I’m going to die soon”, “they can help me deal with issues better”, and a theme that emerged often, “so that I get counseling there and then”. Male students at UKZN wrote similar reasons, as “they can give me advice”, “it will follow by counseling then, then the other sources where I can only read and not continue to need others”, and “it is better because they can give you counseling before they give you your results”.

The responses from students at UKZN seem to emphasize the quality of the counseling services provided to students on a university campus in South Africa, as many students indicated that they expected some form of pre and post-result counseling services to be offered. All students at McGill cited Pipeline of Information as reasons for preferring to talk face-to-face with a health clinic professional when receiving their results. For example, they wrote, “I can receive more information that way”, “I can ask more question”, “I would want the doctor to elaborate on what happens next”, and, “it’s the clearest channel of
communication, and I could ask for pamphlets or extra information”. While students at UKZN preferred and expected some form of counseling when receiving their results, students at McGill expected a greater depth of information.

As one student at McGill wrote, “I’d prefer face-to-face, but I understand our medical system is so constrained”, perhaps students in Canada feel that the medical system does not provide counseling services along with STI testing, as is readily available to students UKZN. However, while speaking with a health nurse at UKZN, I learned that STI testing, (which can take more than a whole month to complete at McGill), occurs all in one day at UKZN.

Specifically, a student who believes they may have a sexually transmitted infection can come into the health clinic with or without an appointment; then, they receive pre-counseling at the clinic before any blood is drawn to test for viruses. At that point, a nurse can answer any misconceptions that the student has about the STI for which they are being tested. Next, an STI test is performed, and results are available within fifteen minutes. The health nurse assesses the student’s reaction to the results, and provides post-counseling to guard against shock, crisis, and suicidal ideation. It is at that point that the health nurse informs the student that (if their results are positive, or rather, that they have HIV or another sexually transmitted infection), further medical services are available at the nearby hospital. The health nurse creates an appointment at the hospital for the student (while the student is still at the health center) to begin anti-retroviral therapy, in the case of a positive HIV result. The hospital also corresponds with the health nurse at UKZN about the student’s adherence to the anti-retroviral therapy, and the health nurse also follows up through periodic phone calls with the student. “At no point throughout the entire process of desiring to be tested, becoming tested, receiving the results, and going through treatment and therapy for an STI, is the student left alone”, (UKZN health nurse, personal communication, December 2010).
If counseling is a prominent part of the STI testing services at UKZN, it would stand to reason that students in South Africa would more likely feel comfortable talking face-to-face with a health nurse to receive results of their STI tests, and to do so for the Individual’s Own Needs, rather than for mere clarification and elaboration on the results, or The Pipeline of Information, as was indicated by students at McGill University.

**Receiving New STI Treatment Information**

Similar to becoming aware about their STI status, students at UKZN were two times more likely than students at McGill to prefer to receive new STI treatment information and options from a health clinic by talking face-to-face than through any other mode of communication. This may be due to a similar pattern as was discussed in the section above: Students at UKZN and McGill both cited The Pipeline of Information, but for different reasons. Specifically, many students at UKZN wrote, “this is the best way to convey and see body language”, “to get answers for concerns”, and “this is the way to explain the instruction on how to take the treatment”. Students at McGill wrote “(it is) easier to communicate clearly and receive the information in person”, and “doctors can elaborate”. However, more than a third of students at McGill preferred to receive new STI information through Email, whereas only 5% of students at UKZN preferred this same method. In any event, even though new information would not necessarily change a student’s STI status, both sample groups preferred to rely on face-to-face talking with sexual health professionals to become informed about new developments that could potentially affect their health and well being in the future, though students at UKZN exhibited a stronger preference for this because of the necessity of being privy to overt bodily reactions in the communication of, not only their STI test results, but of new information given by a health nurse at the clinic.

However, all students, regardless of location of universities, preferred to talk face-to-face with clinicians about new updates because of The Pipeline of Information, which
demonstrates that students preferred to be active participants in securing more information that concerned them; even students at McGill, who indicated that they used a computer on a daily basis (99%), and who could potentially be contacted through their mobile phones (90%) by a health doctor or nurse still preferred to walk to a clinic and receive new updates by speaking to someone, rather than hearing about the information through a phone call, or reading about it in the form of a text message or an Email.
Chapter 6: Discussion

Even though the majority of students have access to a mobile phone on a daily basis, most would prefer to inform their current or most recent sexual partner that they may have an STI by telling them, rather than texting them, because of the seriousness and importance of the topic. This is consistent with Frye and Dornisch’s (2010) findings, that the more someone rated a particular communication tool as more private (talking), the more they felt comfortable self-disclosing highly intimate topics to them. Among the ten communication methods available, mobile phone communication was rated as third most private, and was third most preferred to disclose through, followed by landline telephones, and face-to-face talking as most preferred. Participants were least comfortable communicating through social media sites (MySpace). However, no associations were found between level of experience with computer-mediated devices and perceived level of privacy communicating with devices, suggesting that while the method by which people communicated was integral to the intimacy of the self-disclosed topic, it was not necessary for recipients of messages to be proficient users of similar communication devices. What is unknown from this particular study, however, is why these participants trusted one form of communication more than another.

Consistent with this study’s results, most students preferred to talk face-to-face rather than call or text their parents about their newly realized STI status to receive care and support. When self-disclosing to a current or most recent sexual partner, close friend, or parent, many students (and particularly male students and students at McGill) wrote that they felt obligated to the other person to be honest with them, and that disclosing their status by talking with them was the most respectful way to do so.

When students were given options to receive their STI results from health clinics, female students at UKZN preferred to become informed by talking to a health nurse at school, rather than having results or updates about their health status sent to them through
PREFERENCES FOR SELF-DISCLOSING STI STATUS
	heir mobile phones, even though the majority of female students use a mobile phone on a
daily basis, and have begun to use a mobile phone at a significantly earlier age than male
students. The very private nature of sexual health testing necessitates that students feel
confident that their loved ones will support them, especially during the initial stages of the
disease. Talking is the preferred method by which students feel most comfortable doing so.

Implications for Hyperpersonal Communication Interaction

If there was ever a reason for researchers to determine how the state of peer group
friendships and parent-child communication about STI status would evolve in the next few
years, this study is a good example of the fact that a more humane form of interpersonal
interactions is not dwindling, despite the ubiquitous use of mobile phones among young
people around the world (Ling, 2008). Walther’s explanation of hyperpersonal interaction
would predict that students would prefer to a) receive their STI results, and b) disclose their
STI status through text messages or mobile phones, precisely because these modes of
communication a) allow students to disclose their status without having to see their partner’s
or parents’ overt reactions; b) it would allow romantic partners and parents to focus on the
message rather than how they would need to hide their own reactions, and c) the mobile
nature of these communication devices would allow students the freedom of accessing their
results and new information without the need to travel to a health clinic to become informed.
However, as the results from his study show, students would rather talk face-to-face with a)
their partners, b) their friends, c) and their parents, and would rather go to a health clinic to c)
receive their results and d) receive new information. While mobile phone communication
could provide anonymity, comfort, and convenience, students would rather communicate
through a medium that is a) more mature, b) fulfills a greater emotional connection; and c)
allows a greater breadth and depth of information to be exchanged between people who are
there to provide unconditional support and information.
It is encouraging that many students feel a sense of obligation and respect for those whom their disease would affect the most: their current or most recent sexual partners, and their parents. It is also encouraging that, while the very convenience of mobile phone technology invites many non-profit organizations to set up quick STI testing facilities, the lack of pre and post-counseling services available to patients makes conventional forms of communication (face-to-face talking) much more attractive and beneficial to young students, who have asked for better sexual health information services (Flicker et al, 2009). In South Africa, for example, the service “Please Call Me” by Project Masiluleke allows mobile phone users to request, through an SMS, to have information sent to their mobile phones on a period basis, reminding them to a) get tested, b) know their status; and c) providing them a phone number to the AIDS helpline where they can receive counseling and support. However, as this study shows, young people would prefer to a) receive sexual health information and b) to talk face-to-face with sexual health counselors rather than receive text messages or call health professionals on their mobile phones. A similar service (texttochange.org) sends texts to inform people a) about new health-related information, b) and where they can access testing sites. Both of these services are free, anonymous, and provide useful information to people who would not otherwise be able to access this information if they had to travel to information facilities that are at a great distance. However, it seems that these services simply motivate young people to a) become tested, and b) to know whether their knowledge about HIV/AIDS is correct, rather than to allow young people to receive any personal counseling or support after they become aware of their STI status. The services already available to students at University makes these mobile-led initiatives seem lacking.

A danger of these mobile-led initiatives is that companies could be (needlessly) spending millions of dollars on infrastructure and costs for sending messages to people who would rather talk with a health professional than receive simple texts from them. Further,
these mobile-led initiatives cannot guarantee anonymity to users because of the law in South Africa that requires mobile phone users register their mobile phone SIM cards (Subscriber identification module) with the Independent Communications Authority of South Africa (icasa.org.za). If they wish to own and operate a mobile phone, they must provide their a) mobile phone number, b) full name, c) identification or password number, and d) proof of address (The Regulation of Interception of Communications and Provision of Communication-Related Information Act, 2002). Despite the insistence that these initiatives are anonymous, people’s identities are always attached to their mobile phones. Fortunately, these regulations are not required in Canada. However, should students wish to benefit from cost savings made available through contract-based mobile phone carriers, they too would be required to submit identifying information to them.

**Limitations of the Study**

One of the limitations of this study is the hypothetical nature of one of two of these questions. First, it is unlikely that students would need to self-disclose their STI status to doctors or nurses, who would be responsible, in both Canada and South Africa, to provide students with their STI test results. Once the student is presented with their results, there would be immediate clarification provided by the doctor or nurse at the health clinic. The results from students’ responses on the survey have been kept in the original analysis, so as to demonstrate that preferences for self-disclosure do not differ as a function of to whom students would self-disclose to, but they do differ as a function of the particular mode of communication. However, the responses to this question are largely moot, as are the responses from the significant findings from the question receiving results of STI status. To date, only doctors and nurses are able to provide STI results to students at the health clinic where the test would be initially done. The results from this question should make clear the point that, despite the growing popularity in mobile phone use among young people all over
the world (Ling, 2008), communications about STI status should only occur at health clinics, by trained and authorized doctors and nurses, and that current or most recent sexual partners, friends, and parents should abide by these same expectations. Talking about sex and sexually transmitted infections is a very fear-inducing endeavor for most young students: Individuals who are charged with being a support for someone who has recently found out that they have an STI should understand that there are many aspects of the self-disclosure process that cannot be transmitted through a simple text message: hugs of compassion, facial expressions conveying sympathy, and behavioural cues of understanding are of the utmost importance during these dyadic interactions.

Another limitation of this study, like many quantitative studies, is the lack of control over the extent that students would feel anxious about receiving and disclosing their STI status to others. For example, students in this study were not asked how they would prefer to communicate about a non-personal versus a highly private topic with others. Without specifically comparing how students would prefer to communicate about a) their STI status and b) a non-sensitive and non-private topic, such as an everyday occurrence, these results should only provide a very clear indication of how university students specifically, would prefer to communicate about their STI status, not how they would prefer to do so compared to communicating in general, or how other young people wishing to discuss their STI status would prefer to communicate with members of their social support. Further, readers can only rely on the assumption that students were actively thinking about being in a position where they would need or want to disclose their STI status to others, which could very well not be the fact. However, because of the qualitative nature of the survey, where students were invited to provide their own reasons for the answers they provided to the quantitative forced-choice questions, I am confident that students were active, rather than passive participants in this study.
Recommendations for Future Research

Future researchers interested in studying mobile phone communication and self-disclosure of STI status could strengthen the findings of this study by comparing how students (a) would prefer to communicate about their STI status with others against (b) how students would prefer to communicate about a non-sensitive topic. For example, I did not assess students’ level of trust, as was done in Frye and Dornisch’s (2010) study, where they found that the level of trust with method of communication predicted how students would communicate about a highly intimate topic. To help extrapolate students’ preferences for self-disclosure even further than this study has, future researchers should assess how students feel about a particular mode of communication beforehand, and whether they believe mobile phone communication provides a sufficient level anonymity and confidentiality. Only after these two questions are asked should students be asked how they would prefer to communicate about a private topic.

Furthermore, future studies should consider asking students who recently became aware of their STI status, rather than asking students to (hypothetically) imagine that they did. Due to the immense importance of determining how young students would prefer to communicate about such an important and personal topic as their STI status, students in this sample would have provided the very best indication of that, given the time, monetary and ethical constraints of asking students at a nearby health clinic that was available to a Master’s Student at a Canadian University.

Given that more than 92% of university students do use mobile phones on a daily basis, there are opportunities for health clinics to communicate with students through mobile phone calls or text messages. For example, we know there are instant messaging programs that remind people to take their ARVS or that send out safe-sex text messages (Lim et al., 2008). The results from this study demonstrate that students could be reached through a non
face-to-face communication method, which would enable health professionals to, at the very least, remind students about the importance of becoming tested.

As this is the first study of its kind that allowed university students to “tell” their current or previous sexual partners, close friends, parents, and doctors or nurses how they would prefer to communicate about their STI status, it is still unknown how younger students would prefer to do so. As was shown by Flicker and colleagues’ (2009) study, students in secondary schools have indicated that they would prefer a better way to access sexual health services. Rather than approximating the results from this study to all young students and emerging adults, future researchers could specifically ask this particular group of students (12-17 year olds) how they would prefer to communicate about their sexual health status with others.

Summary

If we are to assume that the results of this study are reliable, in the sense that, how students responded to the questions reflected their true and honest preference for self-disclosing their STI status to others, then partners, friends, and parents should be prepared to provide guidance, advice, and above all, care and compassion when someone discloses to them that they may have become infected with Herpes, Hepatitis, or AIDS. The qualitative responses provided by students in this study suggest that many students would be worried and apprehensive about informing others about their status: Many students felt it was the right thing to do to inform their sexual partners about their status, but they also felt that they “owed it” to their parents to be honest with them, even when they believed their parents would be disappointed, and would react negatively to their news. Students also indicated that their friends would not believe them if they notified them through a text message or a phone call. For these reasons, partners, parents, and friends should make time for their loved ones, and really listen.
Doctors and nurses should also be prepared to provide students at McGill with (1) more information about the disease tested that a student tested positive for; and (b) sufficient time during the appointment to answer students’ questions and calm their concerns. For students at UKZN, health nurses should treat students as McGill students would be expected to be treated by their loved ones: With compassionate and support. Many students at UKZN indicated that they needed the nurses to see their body language when they received the news. To reduce the spread the HIV and HIV, herpes, and Hepatitis, in Canada as well as in South Africa, clinicians should focus on the manner in which they invite students to become tested, and how they react to students’ status. Merely providing information to students who have recently become informed about their STI status may be sufficient for students in Canada, where other sources of social support, such as romantic partners, close friends, and parents provide emotional support and understanding. However, students in South Africa, who are more likely to shy away from communicating with their parents about their STI status, rely on sexual health professionals to behave in a professional, as well as a compassionate manner, where providing information is only the first step in receiving the best care possible.

While it may seem that young people cannot be dissociated from the clutches of their iPhones, Blackberries, and other mobile phone devices (Ling, 2008), we can be assured that, for the first time, that when students have important topics to talk about, they will prefer to communicate in real-time, in real-space, by talking face-to-face.
References


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Appendix A

Survey Completed by Students at McGill University

Communication Survey: Informed Consent

This survey asks you about the way in which you would prefer to communicate about a sexually sensitive topic with others, and through which methods of communication you would prefer to receive sexual health information. There are no risks to participating, and it is completely your choice to participate in this study. You can answer as many questions as you feel comfortable. There is no time limit, and this survey may take less than ten (10) minutes to finish. All information gathered in this study is confidential, will never include your name, and will be used only for research purposes. Your answers have nothing to do with your grades, nor do they reflect your mark in this, or any other class you may be enrolled in. The last page of the survey explains how your answers to these questions help with this research project.

When you finish the survey, your responses will go into a computer database, which I will look at as a large group. There are up to 100 other students doing this survey, so no one will be singled out as an individual. The overall results of this study will be published as part of a Master’s thesis, and may be in a peer-reviewed academic journal. However, no one, other than my advisor and myself, will have access to individual results of this study. For participating in this study, you will be entered into a draw for one (of three) IPod Shuffle(s) (6th Gen), which will be raffled off at the end of this session.

Please email the main researcher, Lukas Labacher, or the supervisor of this project, Dr. Claudia Mitchell, if you have any questions or concerns about any part of the survey, or if you want to learn of the results as a whole. If you have any questions about your rights as a research participant, you may contact the supervisor, Claudia Mitchell, or the Research Ethics Officer, Lynda McNeil.

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514-398-6831

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I, signed below, confirm that I understand what this study is about. I know that I can refuse to participate, and that I may stop at any time, without any consequences to me.

YOUR NAME:________________________________________________
SIGNATURE:_________________________________________________
AGE:________________________________________________________
TODAY’S DATE:______________________________________________

-If you are NOT 18 years of age or older, please do not complete this survey.
Part 1
Imagine you recently became aware that you have a sexually transmitted infection, such as HIV/AIDS, Herpes, Hepatitis.
If you wanted to receive information, emotional support, and guidance from others, how would you prefer to discuss your test results with them?

a) with a current or most recent sexual partner(s)? - Please choose only ONE below

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Briefly explain below why you picked your choice above

b) with a close friend(s)? - Please choose only ONE below

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Briefly explain below why you picked your choice above

c) with a parent(s)/caregiver(s)? - Please choose only ONE below

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Briefly explain below why you picked your choice above

d) with a doctor or nurse? - Please choose only ONE below

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<td>O</td>
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</table>

Briefly explain below why you picked your choice above
Part 2

a) Imagine you recently had a test done that detects if you do or do not have a sexually transmitted infection. How would you prefer that your doctor/nurse/health clinic gives you your results (positive or negative)?

-Please choose only ONE below

<table>
<thead>
<tr>
<th>Talking</th>
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<th>Facebook/</th>
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</table>

Briefly explain below why you picked your choice above

b) How would you prefer to receive information from your doctor/nurse/health clinic about new treatment options for sexually transmitted diseases/infections that are important for you to know about?

-Please choose only ONE below

<table>
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<th>Facebook/</th>
<th>Twitter</th>
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<td>O</td>
</tr>
</tbody>
</table>

Briefly explain below why you picked your choice above


c) Do you use a mobile phone/cell phone on a daily basis? Yes---O -- No --- O ---
d) If yes, at what age did you start to do so? Age: ____
e) Do you use a computer on a daily basis? Yes --- O --- No --- O ---

Part 3
Demographic Information

a) Age: _______
b) Sex: Male ---- O ---- Female ---- O ----
c) Which cultural group do you identify with? (You can choose more than one).

<table>
<thead>
<tr>
<th>Asian</th>
<th>South</th>
<th>African</th>
<th>Latin</th>
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<th>Canadian</th>
<th>Aboriginal</th>
<th>White</th>
<th>American</th>
<th>Other (Specify)</th>
</tr>
</thead>
<tbody>
<tr>
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<td>O ----------</td>
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<td>O ----------</td>
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<td>O ----</td>
<td>O ----------</td>
</tr>
</tbody>
</table>

--- O ---- O ---- O ---- O ---- O ---- O ---- O ---- O ---- O ---- O ----
Communication Survey: Debriefing Form

This survey asked you to indicate how you would want to communicate with various people about the possibility of having a sexually transmitted infection (STD, STI), and to write about why you would choose a particular method of communication if you wanted to share your results with others. Recent studies show that students are learning about sex from their friends at school, but that they would prefer to communicate about sexually sensitive topics in a way that is private and confidential, with someone whom they can trust, such as a doctor or a nurse. New sexual health programs are allowing students to send and receive text messages with doctors and nurses through their mobile phones, to ask and receive personal and private information about sexual health in a way that reduces the effects of feeling embarrassed or ashamed. However, to the best of my knowledge, no studies have asked students if, in fact, they would prefer to use their mobile phones to communicate with others about sexually sensitive topics, or if they would prefer to communicate through other means. This survey helps answer these questions.

If you have any comments about the survey, or would like more information about this project, please contact my supervisor or me at the email addresses below.

My sincerest gratitude for your time and participation,

Lukas Labacher, B.A. (Hons.)
Department of Integrated Studies in Education
Faculty of Education
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Canada
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Claudia Mitchell, PhD.
Faculty of Education
McGill University
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claudia.mitchell@mcgill.ca

Lynda McNeil
Research Ethics Officer
McGill University
514-398-6831
lynda.mcneil@mcgill.ca

Additional References:

You May Keep This Last Page

Please Return All Other Pages to the researcher

Thank You!!!
Appendix B

Survey completed by students at The University of Kwa-Zulu Natal

Communication Survey: Informed Consent

This survey asks you about the way in which you would prefer to communicate to others about a sexually sensitive topic, and through which methods of communication you would prefer to receive sexual health information. There are no risks to participating, and it is completely your choice to participate in this study. You can answer as many questions as you feel comfortable. There is no time limit, and this survey may take less than ten (10) minutes to finish. All information gathered in this study is confidential, will never include your name, and will be used only for research purposes. Your answers have nothing to do with your grades, nor do they reflect your mark in this, or any other class you may be enrolled in. The last page of the survey explains how your answers to these questions help with this research project.

When you finish the survey, your responses will go into a computer database, which I will look at as a large group. There are up to 100 other students doing this survey, so no one will be singled out as an individual. The results of this study will be published as part of a Master’s thesis, and may be in a peer-reviewed academic journal. However, NO ONE, other than my advisor and myself will have access to individual results of this study.

Please email the main researcher, Lukas Labacher, or the supervisor of this project, Dr. Claudia Mitchell, if you have any questions or concerns about any part of the survey, or if you want to learn of the results as a whole. If you have any questions about your rights as a research participant, you may contact the supervisor, Claudia Mitchell, or the Research Ethics Officer, Phume Ximba.

Research Ethics Officer
Phume Ximba
ximba@ukzn.ac.za
031 260 358

Main Researcher
Lukas Labacher, B.A. (Hons.)
lukas.labacher@mail.mcgill.ca
Department of Integrated Studies in Education
Faculty of Education
McGill University
3715 Peel Street, room 225.

Supervisor
Claudia Mitchell, PhD.
mitchelle3@ukzn.ac.za
082 3743158

I, signed below, confirm that I understand what this study is about. I know that I can refuse to participate, and that I may stop at any time, without any consequences to me.

YOUR NAME:________________________________________________
SIGNATURE:________________________________________________
AGE:_______________________________________________________
TODAY’S DATE:_____________________________________________

-If you are NOT 18 years of age or older, please do not complete this survey.
Part 1
Imagine you recently became aware that you have a sexually transmitted infection, such as HIV/AIDS, Herpes, Hepatitis.
If you wanted to receive information, emotional support, and guidance from others, how would you prefer to discuss your test results with them?

a) with a current or most recent sexual partner(s)?

- Please choose only ONE below

<table>
<thead>
<tr>
<th>Talking</th>
<th>Mobile Phone</th>
<th>SMS</th>
<th>Instant Message</th>
<th>Facebook/ (MSN, AOL)</th>
<th>MySpace</th>
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<tbody>
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<td>Face-to-Face</td>
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<td>Text Message</td>
<td>(MSN, AOL)</td>
<td>MySpace</td>
<td>Twitter</td>
<td>Email</td>
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</tr>
<tr>
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<td>O</td>
<td>O</td>
<td>O</td>
<td></td>
</tr>
</tbody>
</table>

Briefly explain below why you picked your choice above

b) with a close friend(s)?

- Please choose only ONE below

<table>
<thead>
<tr>
<th>Talking</th>
<th>Mobile Phone</th>
<th>SMS</th>
<th>Instant Message</th>
<th>Facebook/ (MSN, AOL)</th>
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<td>O</td>
<td>O</td>
<td></td>
</tr>
</tbody>
</table>

Briefly explain below why you picked your choice above

c) with a parent(s)/caregiver(s)?

- Please choose only ONE below

<table>
<thead>
<tr>
<th>Talking</th>
<th>Mobile Phone</th>
<th>SMS</th>
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<td>O</td>
<td></td>
</tr>
</tbody>
</table>

Briefly explain below why you picked your choice above

d) with a doctor or nurse?

- Please choose only ONE below

<table>
<thead>
<tr>
<th>Talking</th>
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<td>MySpace</td>
<td>Twitter</td>
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<td>O</td>
<td>O</td>
<td>O</td>
<td></td>
</tr>
</tbody>
</table>

Briefly explain below why you picked your choice above
Part 2

a) Imagine you recently had a test done that detects if you do or do not have a sexually transmitted infection. How would you prefer that your doctor/nurse/health clinic gives you your results (positive or negative)?

-Please choose only ONE below

<table>
<thead>
<tr>
<th>Talking Face-to-Face</th>
<th>Mobile Phone Call</th>
<th>SMS Text Message</th>
<th>Instant Message (MSN, AOL)</th>
<th>Facebook/ MySpace</th>
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<th>Email</th>
</tr>
</thead>
<tbody>
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<td>O</td>
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<table>
<thead>
<tr>
<th>Talking Face-to-Face</th>
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<td>O</td>
<td>O</td>
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<td>O</td>
<td>O</td>
<td>O</td>
</tr>
</tbody>
</table>

Briefly explain below why you picked your choice above

c) Do you use a mobile phone/cell phone on a daily basis? Yes---O---No --- O---

d) If yes, at what age did you start to do so? Age: ____

e) Do you use a computer on a daily basis? Yes --- O --- No --- O ---

Part 3

Demographic Information

a) Age: ______

b) Sex:  Male ---- O ----  Female ---- O ----

c) Which cultural group do you identify with? (You can choose more than one).

- Asian South African Latin Coloured Aboriginal White Black Canadian (Specify)

--- O ---- O ---- O ----- O --------- O ------- O ------ O ----- O ---- O ---- O ____
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Supervisor
Claudia Mitchell, PhD.
School of Language, Literacies, and Media and Drama Education
University of KwaZulu-Natal

mitchellc3@ukzn.ac.za
082 3743158

Research Ethics Officer
Phume Ximba

ximbap@ukzn.ac.za
031 260 358

Additional References:


You May Keep This Last Page

Please Return All Other Pages to the researcher

Thank You!!!
Tables of Qualitative Analyses

Table 1A

*McGill Students’ Responses to Q1: Self-Disclosing STI Status to Romantic Partner*

<table>
<thead>
<tr>
<th>Reasons for Preferring Face-to-Face</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
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<tr>
<td>Males Raw Scores</td>
<td>13</td>
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<td>5</td>
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</tr>
<tr>
<td>% of McGill Males who Answered Question</td>
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<td>30.8</td>
<td>19.2</td>
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<td>37.8</td>
<td>44.9</td>
<td>10.2</td>
<td>7.1</td>
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Table 1B

*McGill Students Responses to Q3: Self-Disclosing STI Status to Parents*

<table>
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Table 1C

*McGill Students’ Responses to Q5: Receive STI Results*

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<tr>
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<td>7.6</td>
<td>20.3</td>
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Table 1D

*McGill Students’ Responses to Q5: Receive STI Information*

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<th>4</th>
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<tr>
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<td>7</td>
<td>47</td>
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<tr>
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<td>4.4</td>
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Table 2A

*UZKN Students’ Responses to Q1: Self-Disclosing STI Status to Romantic Partner*

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<th>3</th>
<th>4</th>
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<tbody>
<tr>
<td><strong>Males</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Raw Scores</td>
<td>11</td>
<td>12</td>
<td>6</td>
<td>8</td>
</tr>
<tr>
<td>% of UKZN Males who Answered Question</td>
<td>29.7</td>
<td>32.4</td>
<td>16.2</td>
<td>21.6</td>
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<tr>
<td><strong>Females</strong></td>
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<tr>
<td>Raw Scores</td>
<td>12</td>
<td>21</td>
<td>10</td>
<td>11</td>
</tr>
<tr>
<td>% of UKZN Females who Answered Question</td>
<td>22.2</td>
<td>38.9</td>
<td>18.5</td>
<td>20.4</td>
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Table 2B

*UZKN Students’ Responses to Q3: Self-Disclosing STI Status to Parents*

<table>
<thead>
<tr>
<th>Reasons for Preferring Face-to-Face</th>
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<td>15</td>
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<td>% of UKZN Males who Answered Question</td>
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<td>17.9</td>
<td>53.6</td>
<td>3.6</td>
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<tr>
<td><strong>Females</strong></td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Raw Scores</td>
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<td>14</td>
<td>19</td>
<td>4</td>
</tr>
<tr>
<td>% of UKZN Females who Answered Question</td>
<td>17.8</td>
<td>31.3</td>
<td>42.2</td>
<td>8.9</td>
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Table 2C

*UKZN Students’ Responses to Q5: Receiving STI Results*

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<td>11</td>
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<tr>
<td>% of McGill Males who Answered Question</td>
<td>16.7</td>
<td>4.2</td>
<td>45.8</td>
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<tr>
<td><strong>Females</strong></td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Raw Scores</td>
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<td>3</td>
<td>22</td>
<td>21</td>
</tr>
<tr>
<td>% of McGill Females who Answered Question</td>
<td>14.8</td>
<td>5.6</td>
<td>40.7</td>
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Table 2D

*UKZN Students’ Responses to Q5: Receiving STI Information*

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<td></td>
</tr>
<tr>
<td>Raw Scores</td>
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<td>1</td>
<td>3</td>
<td>13</td>
</tr>
<tr>
<td>% of McGill Males who Answered Question</td>
<td>19.0</td>
<td>4.8</td>
<td>14.3</td>
<td>61.9</td>
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<tr>
<td><strong>Females</strong></td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Raw Scores</td>
<td>5</td>
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<td>1</td>
<td>35</td>
</tr>
<tr>
<td>% of McGill Females who Answered Question</td>
<td>12.2</td>
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Table 3A

*All Students’ Responses to Q1: Self-Disclosing STI Status to Romantic Partner and Gender*

<table>
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<th>4</th>
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<td></td>
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</tr>
<tr>
<td>Raw Scores</td>
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<td>20</td>
<td>11</td>
<td>8</td>
</tr>
<tr>
<td>% of Males who Answered Question</td>
<td>38.1</td>
<td>31.7</td>
<td>17.5</td>
<td>12.7</td>
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<tr>
<td><strong>Females</strong></td>
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<tr>
<td>Raw Scores</td>
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<td>78</td>
<td>23</td>
<td>20</td>
</tr>
<tr>
<td>% of Females who Answered Question</td>
<td>33.1</td>
<td>43.1</td>
<td>12.7</td>
<td>11.0</td>
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Table 3B

*All Students’ Responses to Q3: Self-Disclosing STI Status to Parents*

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<tr>
<td>51 Raw Scores</td>
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<td>11</td>
<td>19</td>
<td>1</td>
</tr>
<tr>
<td>% of Males who Answered Question</td>
<td>39.2</td>
<td>21.6</td>
<td>37.3</td>
<td>2.0</td>
</tr>
<tr>
<td><strong>Females</strong></td>
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<tr>
<td>160 Raw Scores</td>
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<td>52</td>
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<td>% of Females who Answered Question</td>
<td>29.4</td>
<td>28.1</td>
<td>32.5</td>
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Table 3C

*All Students’ Responses to Q5: Receiving STI Results*

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<td><strong>Males</strong></td>
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<tr>
<td>43 Raw Scores</td>
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<td>15</td>
<td>17</td>
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<tr>
<td>% of Males who Answered Question</td>
<td>29.9</td>
<td>4.7</td>
<td>34.9</td>
<td>23.3</td>
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<tr>
<td><strong>Females</strong></td>
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<td>133 Raw Scores</td>
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<td>9</td>
<td>38</td>
<td>56</td>
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<td>% of Females who Answered Question</td>
<td>22.6</td>
<td>6.8</td>
<td>28.6</td>
<td>42.1</td>
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Table 3D

*All Students’ Responses to Q6: Receiving STI Information*

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<td><strong>Males</strong></td>
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<td>36 Raw Scores</td>
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<td>5</td>
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</tr>
<tr>
<td>% of Males who Answered Question</td>
<td>13.9</td>
<td>5.6</td>
<td>13.9</td>
<td>66.7</td>
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<td><strong>Females</strong></td>
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<td>82</td>
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<td>% of Females who Answered Question</td>
<td>14.7</td>
<td>2.8</td>
<td>7.3</td>
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**Table 4A**

*Students’ Responses Separated by School to Q1: Self-Disclosing STI Status to Romantic Partner*

<table>
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<td>Raw Scores</td>
<td>61</td>
<td>65</td>
<td>18</td>
<td>9</td>
</tr>
<tr>
<td>% of Students who Answered Question</td>
<td>39.2</td>
<td>42.5</td>
<td>11.8</td>
<td>5.9</td>
</tr>
<tr>
<td>UKZN</td>
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</tr>
<tr>
<td>Raw Scores</td>
<td>23</td>
<td>33</td>
<td>16</td>
<td>20</td>
</tr>
<tr>
<td>% of Students who Answered Question</td>
<td>25.0</td>
<td>35.9</td>
<td>17.4</td>
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**Table 4B**

*Students’ Responses Separated by School to Q3: Self-Disclosing STI Status to Parents*

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<td>McGill</td>
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</tr>
<tr>
<td>Raw Scores</td>
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<td>37</td>
<td>37</td>
<td>12</td>
</tr>
<tr>
<td>% of Students who Answered Question</td>
<td>37.7</td>
<td>26.8</td>
<td>26.8</td>
<td>8.7</td>
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<tr>
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<td></td>
</tr>
<tr>
<td>Raw Scores</td>
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<td>19</td>
<td>35</td>
<td>5</td>
</tr>
<tr>
<td>% of Students who Answered Question</td>
<td>21.3</td>
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<td>46.7</td>
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</table>

**Table 4C**

*Students’ Responses Separated by School to Q5: Receiving STI Status*

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<tbody>
<tr>
<td>McGill</td>
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<td></td>
<td></td>
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</tr>
<tr>
<td>Raw Scores</td>
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<td>20</td>
<td>44</td>
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<tr>
<td>% of Students who Answered Question</td>
<td>27.6</td>
<td>7.1</td>
<td>20.4</td>
<td>44.9</td>
</tr>
<tr>
<td>UKZN</td>
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<tr>
<td>Raw Scores</td>
<td>12</td>
<td>4</td>
<td>34</td>
<td>30</td>
</tr>
<tr>
<td>% of Students who Answered Question</td>
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<td>5.0</td>
<td>42.5</td>
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### Table 4D

*Students’ Responses Separated by School to Q6: Receiving New STI Information*

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<td></td>
<td>% of Students who Answered Question</td>
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<td>10.8</td>
</tr>
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<td>Females 63</td>
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<td>1</td>
<td>4</td>
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<td>% of Students who Answered Question</td>
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<td>1.6</td>
<td>6.3</td>
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